Contents

Acanthus mollis .......................................................... 5
Acer pseudoplatanus .................................................. 6
Acmena smithii ......................................................... 8
Agapanthus praecox ..................................................... 10
Agave americana ...................................................... 12
Ageratina altissima ..................................................... 14
Ailanthus altissima ..................................................... 16
Akebia quinata .......................................................... 17
Albizia julibrissin ....................................................... 19
Alocasia brisbanensis ................................................. 21
Alternanthera philoxeroides ....................................... 23
Ammophila arenaria .................................................. 25
Anredera cordifolia .................................................... 26
Araujia sericifera ..................................................... 28
Aristea ecklonii .......................................................... 30
Arum italicum ........................................................... 32
Arundo donax .......................................................... 34
Asparagus asparagoides ............................................. 36
Asparagus densiflorus ................................................. 37
Asparagus scandens .................................................. 39
Asparagus spp. (excluding officinalis) ......................... 41
Bartlettina sordida ..................................................... 42
Berberis darwinii ....................................................... 44
Bomarea caldasii ....................................................... 46
Bomarea multiflora ................................................... 47
Bryoniacretica .......................................................... 49
Buddleja davidii ........................................................ 51
Buddleja madagascariensis ....................................... 53
Caesalpinia decapetala ................................................. 54
Calluna vulgaris (excluding double flowered cultivars) ................................................... 56
Cardiospermum grandiflorum ................................... 58
Cardiospermum halicacabum .................................... 60
Carex divisa ............................................................. 61
Carex divulsa ........................................................... 63
Carpobrotus edulis & hybrids .................................... 65
Caulerpa taxifolia ....................................................... 66
Celastrus orbiculatus ............................................... 68
Ceratophyllum demersum .......................................... 70
Cestrum aurantiacum ................................................ 71
Cestrum elegans ........................................................ 73
Cestrum nopturnum .................................................. 75
Cestrum parqui .......................................................... 76
Chrysanthemoides monilifera .................................... 78
<table>
<thead>
<tr>
<th>Common Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hieracium aurantiacum</td>
<td>80</td>
</tr>
<tr>
<td>Hedychium gardnerianum</td>
<td>82</td>
</tr>
<tr>
<td>Hedychium flavescens</td>
<td>83</td>
</tr>
<tr>
<td>Cortaderia jubata</td>
<td>85</td>
</tr>
<tr>
<td>Cortaderia selloana</td>
<td>87</td>
</tr>
<tr>
<td>Cotoneaster simonsii</td>
<td>88</td>
</tr>
<tr>
<td>Cotyledon orbiculata</td>
<td>90</td>
</tr>
<tr>
<td>Crassula multicava</td>
<td>92</td>
</tr>
<tr>
<td>Crocosmia x crocosmiiflora</td>
<td>94</td>
</tr>
<tr>
<td>Cyathaea cooperi</td>
<td>95</td>
</tr>
<tr>
<td>Cytisus scoparius</td>
<td>97</td>
</tr>
<tr>
<td>Dipogon lignosus</td>
<td>99</td>
</tr>
<tr>
<td>Drosera capensis</td>
<td>101</td>
</tr>
<tr>
<td>Dryopteris filix-mas</td>
<td>102</td>
</tr>
<tr>
<td>Eccremocarpus scaber</td>
<td>104</td>
</tr>
<tr>
<td>Egeria densa</td>
<td>106</td>
</tr>
<tr>
<td>Ehrharta villosa</td>
<td>107</td>
</tr>
<tr>
<td>Eichhornia crassipes</td>
<td>109</td>
</tr>
<tr>
<td>Eomecon chionantha</td>
<td>111</td>
</tr>
<tr>
<td>Equisetum arvense</td>
<td>113</td>
</tr>
<tr>
<td>Equisetum hyemale</td>
<td>114</td>
</tr>
<tr>
<td>Equisetum spp. (all)</td>
<td>116</td>
</tr>
<tr>
<td>Erhagrostis curvula</td>
<td>118</td>
</tr>
<tr>
<td>Erica lusitanica</td>
<td>120</td>
</tr>
<tr>
<td>Erigeron karvinskianus</td>
<td>121</td>
</tr>
<tr>
<td>Euonymus japonicus</td>
<td>123</td>
</tr>
<tr>
<td>Ficus rubiginosa</td>
<td>125</td>
</tr>
<tr>
<td>Fuchsia boliviana</td>
<td>127</td>
</tr>
<tr>
<td>Galeobdolon luteum</td>
<td>129</td>
</tr>
<tr>
<td>Genista monspessulana</td>
<td>130</td>
</tr>
<tr>
<td>Gunnera manicata</td>
<td>132</td>
</tr>
<tr>
<td>Gunnera tinctoria</td>
<td>134</td>
</tr>
<tr>
<td>Gymnocoronis spilanthoides</td>
<td>135</td>
</tr>
<tr>
<td>Hedera helix subsp. helix and cultivars</td>
<td>137</td>
</tr>
<tr>
<td>Hedychium flavescens</td>
<td>139</td>
</tr>
<tr>
<td>Hedychium gardnerianum</td>
<td>141</td>
</tr>
<tr>
<td>Heracleum mantegazzianum</td>
<td>142</td>
</tr>
<tr>
<td>Hieracium argillaceum group</td>
<td>144</td>
</tr>
<tr>
<td>Hieracium aurantiacum</td>
<td>146</td>
</tr>
<tr>
<td>Hieracium caespitosum</td>
<td>147</td>
</tr>
<tr>
<td>Hieracium lepidulum</td>
<td>149</td>
</tr>
<tr>
<td>Hieracium murorum</td>
<td>151</td>
</tr>
<tr>
<td>Hieracium pilosella</td>
<td>152</td>
</tr>
<tr>
<td>Hieracium pollichiae</td>
<td>154</td>
</tr>
<tr>
<td>Hieracium praealtum</td>
<td>155</td>
</tr>
<tr>
<td>Hieracium sabaudum</td>
<td>157</td>
</tr>
<tr>
<td>Hieracium spp. (all)</td>
<td>159</td>
</tr>
<tr>
<td>Hieracium Xstoloniflorum (aurantiacum x pilosella hybrid)</td>
<td>160</td>
</tr>
<tr>
<td>Homalanthus populifolius</td>
<td>162</td>
</tr>
<tr>
<td>Homeria collina</td>
<td>164</td>
</tr>
<tr>
<td>Houttuynia cordata</td>
<td>165</td>
</tr>
</tbody>
</table>
Hydrilla verticillata ................................................................. 167
Hydrocleys nymphoides ........................................................... 169
Hypericum androsaenum .......................................................... 170
Ipomoea indica ........................................................................ 172
Iris pseudacorus ..................................................................... 174
Jasminum humile .................................................................... 176
Jasminum polyanthum .............................................................. 177
Kennedia rubicunda .................................................................. 179
Lagarosiphon major .................................................................. 181
Lantana camara ........................................................................ 183
Lantana camara var aculeata ..................................................... 184
Leycesteria formosa .................................................................. 186
Ligustrum lucidum ..................................................................... 188
Lilium formosanum ................................................................... 189
Lonicera japonica ...................................................................... 191
Ludwigia peploides subsp. montevidensis .................................. 193
Ludwigia peruviana .................................................................... 195
Lythrum salicaria ....................................................................... 196
Macfadyena unguis-cati .............................................................. 198
Melaleuca quinquenervia ............................................................ 200
Menyanthes trifoliata ................................................................. 201
Miscanthus nepalensis ............................................................... 203
Myoporum insulare (plus hybrids) ............................................... 205
Myrica faya .................................................................................. 206
Myricaria germanica ................................................................. 208
Myriophyllum aquaticum ............................................................ 210
Myriophyllum spicatum ............................................................. 211
Najas guadalupensis ................................................................. 213
Najas marina .............................................................................. 215
Nassella - ALL species ............................................................... 217
Nassella neesiana ...................................................................... 218
Nassella tenuissima ................................................................. 220
Nassella trichotoma ................................................................. 222
Nephrolepis cordifolia ............................................................... 223
Nuphar lutea ............................................................................... 225
Nymphaea mexicana ................................................................. 227
Nymphaoides geminata ............................................................. 228
Nymphaoides peltata ............................................................... 230
Ochna serrulata ......................................................................... 232
Osmunda regalis ....................................................................... 233
Panicum maximum ..................................................................... 235
Passiflora caerulea .................................................................... 237
Passiflora edulis ........................................................................ 238
Passiflora mixta ......................................................................... 240
Passiflora tarminiana ............................................................... 242
Passiflora tripartita(all subspecies) ........................................... 243
Pennisetum alopecuroides .......................................................... 245
Pennisetum latifolium ............................................................... 247
Pennisetum macrourum ............................................................ 248
Pennisetum purpureum ............................................................ 250
Pennisetum setaceum ............................................................... 251
Pennisetum spp. (excluding P. clandestinum and P. glaucum) .................................................. 253
Pennisetum villosum .................................................................................................................. 255
Phragmites australis ................................................................................................................. 256
Pinus contorta .......................................................................................................................... 258
Pistia stratiotes ......................................................................................................................... 260
Pittosporum undulatum ............................................................................................................ 261
Plectranthus ciliatus .................................................................................................................. 263
Polygala myrtifolia .................................................................................................................... 265
Polygonum perfoliatum ............................................................................................................. 267
Potamogeton perfoliatus ........................................................................................................... 269
Prunus serotina ........................................................................................................................ 270
Pyracantha angustifolia ............................................................................................................. 272
Reynoutria japonica .................................................................................................................. 274
Reynoutria japonica x sachalinensis ......................................................................................... 275
Reynoutria sachalinensis .......................................................................................................... 277
Rhamnus alaternus .................................................................................................................... 279
Rhododendron ponticum .......................................................................................................... 280
Ricinus communis ..................................................................................................................... 282
Sagittaria montevidensis ............................................................................................................ 284
Sagittaria platyphylla ................................................................................................................ 286
Sagittaria sagittifolia .................................................................................................................. 287
Salix cinerea .............................................................................................................................. 289
Salix fragilis .............................................................................................................................. 291
Salvinia molesta ........................................................................................................................ 292
Salvinia spp. .............................................................................................................................. 294
Schinus terebinthifolius .............................................................................................................. 296
Schoenoplectus californicus ....................................................................................................... 298
Selaginella kraussiana .............................................................................................................. 299
Senecio angulatus ...................................................................................................................... 301
Senecio mikanoides .................................................................................................................... 303
Solanum carolinense .................................................................................................................. 304
Solanum marginatum ................................................................................................................ 306
Solanum mauritianum ................................................................................................................ 308
Sorghum halepense ..................................................................................................................... 310
Sparganium erectum .................................................................................................................. 312
Stratiotes aloides ....................................................................................................................... 313
Thunbergia grandiflora .............................................................................................................. 315
Toxicodendron succedaneum ..................................................................................................... 317
Tradescantia fluminensis .......................................................................................................... 320
Trapa natans ............................................................................................................................ 322
Trapa spp. ................................................................................................................................ 323
Tropaeolum speciosum .............................................................................................................. 325
Tussilago farfara ...................................................................................................................... 327
Typha domingensis .................................................................................................................. 328
Typha latifolia ........................................................................................................................... 330
Utricularia gibba ........................................................................................................................ 332
Utricularia livida ....................................................................................................................... 333
Utricularia spp. (except the 3 native species) ........................................................................... 335
Vallisneria gigantea .................................................................................................................... 337
Vallisneria spiralis? (may be a hybrid) ....................................................................................... 338
Watsonia meriana ..................................................................................................................... 340
Zantedeschia aethiopica ................................................................. 342
Zizania latifolia ........................................................................ 343
Utricularia arenaria ................................................................. 345
Utricularia sandersonii ............................................................. 347
Zantedeschia green goddess ....................................................... 348

Acanthus mollis

Common names
Bear's breeches, Oyster plants

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes. DOC reports Northland, Waikato, Auckland, BOP, Taranaki, Wanganui, Nelson Marlborough, West Coast, Stewart Island

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is current established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Tall, swamping ground cover for most of year. Main effect likely to be on conservation, preventing reestablishment of native species.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
DOC weediness score 19, my WRA at 17 ('reject')

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Uncertain about some characteristics, like seed longevity, so score conservative.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Previously trendy as a 'landscape' plant in NZ gardens. Still promoted on gardening websites, and available for sale from NZ internet catalogues. Cultivar sold internationally as Feilding or NZ Gold. NGIA rep on Weedbusters committee recently described it as 'unattractive'. We've got it in our garden!

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
--
NZ Nursery register 2004/05 genus level only
--
NZ Nursery Register 1997/98 genus level only
--
NZ Nursery register 1991/92 genus level only
--
Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?:  Widespread, common, Nth Island, Sth Island, Regions? Habitats?
'scattered localities near towns'

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Not shown in DOC’s database, Untested, but physically hard to dig up. Suspect relatively easy to control with glyphosate or, better, with Tordon BK.

National eradication i.e. DOC, MAF

no

RPMS YES/NO refer to master document

no

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

Berries & roots appear to be toxic and included in the Washington State Dept of Health’s list of toxic or poisonous plants not suitable for areas occupied by “dementia patients or children” (WA-DoH 2005)

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Somewhat invasive although not being widely dispersed. Tall-growing, smothering growth form and colonies presumably spread slowly over short distances. Present distribution suggests it could easily become more widespread, but it may take a while.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Flora says along roadsides near settlements, suggesting spread very slow. And it may not really be very invasive, nor have very much impact on natives..

Include in NPPA?

No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Has weedy potential but not generally considered a problem. Hasn’t spread much. No longer a trendy garden plant, but could return. Precautionary principle says add it to list.

Notes from TAG meeting

Not entirely unanimous decision

Acer pseudoplatanus

Common names
Sycamore maple, Great maple, Purple sycamore, Whistlewood, Box elder, Grief tree, Hanging tree, Dool tree, Joug tree.

**Synonyms**

Nil

**Is the plant species present in NZ?** (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

Yes

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

Yes, DOC reports throughout NZ except Northland, Auckland. Few sites in Hawkes Bay, Canterbury.

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Invasive in native woodlands, ability to displace natives and replace with sycamore-dominated woodland.

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

*Doc weediness score 27, my wra 22 ('reject')*

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Probably about right (equivalent to opuntia or alligator weed in Australia)

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report.

Grown in lots of parks and gardens as specimen trees and as 'avenues'. Available from nursery websites in NZ.

**Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level**

- NZ Nursery register 2004/05 genus level only
- NZ Nursery Register 1997/98 genus level only
- NZ Nursery register 1991/92 genus level only
- Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

**Known vs potential distribution in NZ (abundance in New Zealand)** (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Common throughout NZ and expanding its range, including invasion of forest

**Ease of control of the plant as a species** (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Labour intensive - entails hand pulling seedlings, killing individual trees (frilling, boring holes and injecting herbicide, or treating cut stumps with vigilant).

**National eradication i.e. DOC, MAF**

no
RPMS YES/NO refer to master document
Yes

NPPA YES/NO
yes

Notifiable organism
uo

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
DoC weed-led

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Can be very invasive in thin forest remnants and during regeneration. Inclusion discourages planting yet more trees in gardens and parks. Raises awareness as a problem in some areas.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
So much of it around banning its sale now won’t make any difference.

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Acmena smithii

Common names
Monkey apple

Synonyms
Eugenia smithii

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
YES

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
YES: Flora IV: Nth Is - Bay of Islands, Whangarei, Auckland (occ. in the vicinity of planted trees, mainly in scrub or in waste ground). UO Declarartion (DoC): Northland and Auckland, NB Also noted naturalised in the Wellington Region (KW pers obs). Kereru eat fruit and disperse seeds into intact forest areas etc. 27 voucher specimens of naturalised material in Auckland Herbarium - oldest 1967 (AK154312).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a
Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

YES - CONSERVATION VALUES: Grows rapidly into a long-lived canopy tree (to 20m), outgrowing other native canopy trees, e.g. puriri and taraire. Seedlings establish in dense swathes, with saplings forming thickets. Able to establish in native lowland primary and secondary forest and scrub, under low light conditions (seedlings are shade-tolerant), becoming a permanent and dominant component of the understorey and canopy - sometimes forming almost pure associations.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.


Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Native of Australia - good species info available. Personal experience of invasiveness of this species in northern NZ. Shade tolerance, prolific seed production with high viability, bird-dispersal of seeds, high numbers of mature individuals in urban and rural areas (ornamental/amenity and shelter trees), longevity, wide environmental tolerance = major potential to become an even worse weed.

Objective evidence it has been or is deliberately distributed in NZ. (Discussed in section 3.2.1 of the evaluation criteria report.

Was sold in the garden industry - frequently cultivated and traded throughout NZ. Commonly planted as an ornamental/specimen and shelter tree. Overseas: cvs in Australia, e.g. 'Hot Flush'


Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

116

NZ Nursery Register 1997/98 genus level only

83

NZ Nursery register 1991/92 genus level only

-

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Widespread in cultivation in warmer regions of the NI (including inshore and offshore islands) and northern Sl., Currently at far less that its potential naturalised distribution - frost tolerant.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

CONTROL DIFFICULT - for infestations with abundant trees and seedlings amongst native vegetation - ongoing follow-up control required. Physical control (pull/dig out seedlings, fell larger trees & treat stump with herbicide). Chemical Control (spray foliage with metsulfuron & penetrant, paint cut stumps and stems or drill & inject mixture into stumps - metsulfuron-based herbicides or Vigilant gel recommended ). EBoP. Biological Control: None available.

National eradication i.e. DOC, MAF

-

RPMS YES/NO refer to master document

Yes

NPPA YES/NO
Yes

**Notifiable organism**

No

**Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.**

NZ: DoC weed-led control on Great Barrier Island, Mokohinau Islands and Burgess Islands - to eradicate all adults to help protect the unique shrubland and dune communities on these islands (UO Declaration, DoC). ARC undertaking control on Regional Parkland. Was a National Surveillance Plant Pest and included on the current NPPA list. NB Rated as highly flammable in Tasmania [http://www.apstas.com/sgaptas-fire.htm](http://www.apstas.com/sgaptas-fire.htm)

**Any known impact on human health?**

No known harm.

**Reasons for inclusion in NPPA.** A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

High WRA (20). Significant potential for this species to become a major and permanent component of many habitats in northern NZ. Naturalised distribution still well short of potential. Important to limit any further sale/deliberate spread. Already recognised now as a serious environmental weed, and on NPPA. Status should remain.

**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none

**Include in NPPA?**

YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

**Notes from TAG meeting**

Nil

---

**Agapanthus praecox**

**Common names**

Agapanthus

**Synonyms**

Agapanthus orientalis

**Is the plant species present in NZ?** (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

YES

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

YES: Flora Ill: Nth Is - Auck City, BoP Whakatane - Opotiki, Sth Is - Nelson-near Westport, Canterbury near Chch, Otago - inc Dunedin. ARC Report (Craw, 2005): Agapanthus praecox subsp. orientalis well established in Auckland Region, including in coastal dune areas, coastal and inland cliffs, regenerating bush and forest margins, roadside drains and berms. NB 6 species in genus of which 5 are known to be present in NZ. ([http://www.plantzafrica.com/plantab/agapanpraecox.htm](http://www.plantzafrica.com/plantab/agapanpraecox.htm)). 18 voucher specimens of naturalised material in Auckland Herbarium - oldest 1977 (AK141282).

If no to previous question, what potential does the species have to establish self-sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a
Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

YES - CONSERVATION VALUES: Forms very dense clumps. Establishes in coastal dunelands, coastal and inland cliff/bluff areas, riparian areas (with seed transported by waterways), forest margins, and regenerating native vegetation, competing with and displacing native communities in these areas. Monocultures can completely exclude native plants and animals in habitats at risk, e.g. Arthropodium cirratum. ECONOMIC: Also spreads along roadsides, clogging drains and causing flooding - which can damage road surfaces. Requires control to mitigate impacts.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Reject (30) NB Allelopathic? Reproductive failure in native habitat (Sth Africa)?

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Profile as an environmental weed in NZ growing - with impacts in coastal areas in particular now well documented. Also recognised as an invasive overseas (e.g. Australia). Other cvs also known to be weedy - e.g. in Australia - miniature or dwarf variety, also rather weedy - http://www.weedsbluemountains.org.au/agapanthus.asp

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Very widely sold by the garden industry - very popular garden/amenity plant - currently widely available including via the internet and mailorder. Numerous cultivars. Desirable for their year round lush foliage, long flowering time and hardiness. Used as a garden or container plant, and for mass planting along driveways and on banks.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

116

NZ Nursery Register 1997/98 genus level only

83

NZ Nursery register 1991/92 genus level only

-

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

NZ: Garden dumping, e.g. Waitakere Ranges, coastal forest in Northland (Sullivan et al. 2005). Also often divided and given away by gardeners. Very desirable as they thrive in harsh/difficult sites and provide an attractive show of white-purple-blue flowers

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Has been and is sold and planted widely in NZ - likely to be present in most NI and SI Regions. (very wide environmental tolerance including frost, drought and coastal conditions). Naturalised in a number of coastal and lowland areas. Has not reached its potential naturalised distribution - either in terms of habitats or geographically.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

DIFFICULT TO CONTROL - does not respond well to herbicide

(http://www.weedsbluemountains.org.au/agapanthus.asp) - Physical control (remove flower heads before seeds mature. Dig out clumps ensuring all root material is removed - burn or deep dig). Chemical Control (cut leaves and spray close to ground or overall spray with triclopyr or Escort/glyphosate mix; paint stumps with Vigilant gel - 3-4 follow-ups of either method/chemical application required). Biological Control: None available.

National eradication i.e. DOC, MAF

-

RPMS YES/NO refer to master document

Yes
NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
NZ: ARC include species as a ‘Research Organism’ in their RPMS and are undertaking weed-led control of it on Regional Parks. Landcare Groups controlling Agapanthus in west Auckland coastal areas. Greater Wellington - site-led control in Wellington Region. Overseas: Recognised as an environmental weed in parts of Australia, e.g. Melbourne, Blue Mountains.

Any known impact on human health?
Agapanthus spp. are suspected of causing haemolytic poisoning in humans, and the sap causes severe ulceration of the mouth. Sap and leaves are considered to have low to medium harm potential, and are also irritant to the skin [WA-DAg 2005].

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
WRA score very high (30). Weed potential of this species now becoming well recognised - serious impacts on native ecosystems, particularly in coastal areas. Inclusion of on the NPPA will help to further raise the plants profile as an environmental weed. Had this species not already been present in NZ, it would not be allowed to be imported given the WRA score and its invasive nature in other countries with similar climates to NZ. NB: Recommendation would be at the species level - including all cultivars. Cultivars are known to naturalise and enforcing bans on some and not others would not be technically feasible.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Is already widespread in cultivation.

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Inclusion on the NPPA as an as UO will have significant economic consequences for the large number of growers that sell this species and associated cvs. Will require an amnesty period, e.g. 1 year as ARC did for Aristea. The ARC NPPA nomination for this species also indicated that a number of growers in NZ export large quantities and would seek an exemption to allow them to continue this trade should the species be included on the NPPA. Implications then for our requirements under the CBD - re notifying trading countries that the species is classes as a pest in NZ. Publicity will be required to change people’s attitude to this very popular garden and amenity plant.

Notes from TAG meeting
Needs work on cultivar distinguishability, breeding system

Agave americana

Common names
Century plant

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes
Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence). Frequent on cliffs and some beaches but only in localized areas from Bay of Plenty northwards. Only few scattered localities in the South Island. Seeds infrequently.

If no to previous question, what potential does the species have to establish self-sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands) n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals. Environmental; potential to smother smaller plants on coastal cliffs and beaches. Although not mentioned in the Flora, it spreads by runners and juveniles appear some distance from the adult. Their armed points are a real hazard to summer beach dwellers and poisoning can result.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ. reject (18)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only) Score reflects its mildly invasive nature and toxicity

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Widely sold.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level 9

NZ Nursery register 2004/05 genus level only
109

NZ Nursery Register 1997/98 genus level only
37

NZ Nursery register 1991/92 genus level only
-

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant Most plants in existence have been purposely planted or resulted from dumping.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.) Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats? Relatively limited distribution in the north and largely confined to sandy beaches. Has the potential to be much more common adjacent to coastal settlements.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?) Difficult to control with sprays. Injection required. Most control efforts directed to digging up whole plants and runners.

National eradication i.e. DOC, MAF
No

RPMS YES/NO refer to master document
-

NPPA YES/NO
No
Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

DOC has controlled it in small areas at Matapouri in Northland

Any known impact on human health?

The sap of A. americana is considered to have medium to high harm potential, and it is also an irritant to the skin [WA-DAg 2005]. The medical literature describes numerous cases of severe contact dermatitis provoked by A. americana leading to skin eruptions, and many with systemic signs and symptoms.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Because the plant seeds infrequently (c.once every 50 years followed by death), humans are the main dispersal agency. It is not highly invasive, i.e. not rapidly spreading, but its impact is visually dramatic in natural landscapes. Very dangerous on public beaches because of spines

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

People like it for its dramatic foliage and flowering, and also as a herbal.

Include in NPPA?

YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil

Ageratina altissima

Common names
white snakeroot

Synonyms
Eupatorium rugosum

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

No, not in Vol IV

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

Not naturalised.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Nil

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (12)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only) Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level one listing for Eupatorium ruginosa - appears to be an invalid name but might be an error for E.rugosum

NZ Nursery register 2004/05 genus level only
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NZ Nursery Register 1997/98 genus level only
--

NZ Nursery register 1991/92 genus level only
--

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant 92 suppliers (under Eupatorium rugosum) in RHS Plant Finder (13 x E.r, 1 x E.r 'Brunette' and 78 x E.r. 'chocolate'

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.) Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats? n/a

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

--

National eradication i.e. DOC, MAF
--

RPMS YES/NO refer to master document
--

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health? White snakeroot is a highly toxic species responsible for livestock poisoning and also human poisoning in individuals that drink milk from animals that have fed on the plant. In the native range of the plant the relationship between the plant and poisoning is well understood and agricultural practices mean that poisoning is now rare. However the poisoning caused by this plant is serious and it would be a highly undesirable species

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report) None

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Not in NZ

Include in NPPA?
No - needs more information. Will be considered for next review round of Accord

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Further research, whether or not present in NZ, whether invasive.

Ailanthus altissima

Common names
Tree of heaven, Tree from hell, Lacquer tree, Copal tree, Varnish tree, Ailanthus, Rotting carion tree, Baked sewage tree, Kerosene tree

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, Widely naturalised in the North Island; Auckland, Masterton, western King Country to New Plymouth. Grows from both seed and cuttings.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Smothers native vegetation. Forms dense thickets, especially when cut or damaged. Roots can block drains. Main potential weed problem is on regenerating sites.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject (12)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only).
On the face of it, this tree might appear innocuous but still sufficient to be well within the reject category.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Sold in many nurseries

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
7

NZ Nursery register 2004/05 genus level only
6

NZ Nursery Register 1997/98 genus level only
8
NZ Nursery register 1991/92 genus level only

12

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Wide appeal as a cultivated tree because relatively easy to grow in a range of soils/climates.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Its scattered naturalized distribution through a range of climate zones indicates potential to be very much more common.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Trees need to be treated individually with chemical so control highly intensive. Regrowth needs treatment too.

National eradication i.e. DOC, MAF
No

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
Sap is considered to have low to medium harm potential, and is also irritant to the skin [WA-DAg 2005]. Sap causes dermatitis in some people (Derrick & Darley 1994), as the substance ailanthone inside the bark is a potential irritant.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
A potentially bad weed on regenerating forest that is nowhere near its potential distribution and so all new founder populations should be prevented.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
An attractive ornamental tree

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Akebia quinata

Common names
Akebia, chocolate vine, five-leaved akebia
Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
YES

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
YES: Flora IV: Nth Is - Whangaparapara (GBI), Te Araroa E Cape, near Dannevirke, Sth Is - near Havelock, Tai Tapu (Chch). Limited vegetative spread from original plantings. 10 voucher specimens of naturalised material in Auckland Herbarium - oldest 1972 (AK130593).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
Overseas: Naturalises easily in favourable climates. Naturalised in at least 19 US states, and has invaded SW England (GISD)

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
YES - CONSERVATION VALUES: vigorous vine that can cover, outcompete and kill ground cover plants, seedlings and young trees. Growth prevents regeneration. Tolerant of a wide range of climatic and edaphic conditions (GISD). Shade tolerant.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ. Reject (14) NB Limited self-compatibility (hand-crossing or planting more than one vine recommended re cultivation).

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ. Reject (14) NB Limited self-compatibility (hand-crossing or planting more than one vine recommended re cultivation).

Deer resistant - not sure about palatability to other mammals. Assume not toxic as fruit eaten - not sure about foliage. Other species in same genus (A. trifoliata) but didn't find any reference to it being invasive.

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Score reduced because of low seed set without cross-pollination and long generative time (5 years). However, easily establishes vegetatively.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Sold in the garden industry. Flora IV: 'a rather uncommon plant in cultivation'

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only
68

NZ Nursery Register 1997/98 genus level only
64

NZ Nursery register 1991/92 genus level only
69

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Uncommon as an ornamental plant - and still reasonably limited in its naturalised distribution. Potential to far more widely naturalised - including colder parts of NZ (Dormant plants hardy to -20 degrees C - GISD Database).
Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Physical Control (small infestations: cut vines repeatedly, dig up vines removing all roots); Chemical Control (apply herbicide, e.g. glyphosate or triclopyr). Biological Control: None available.

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
NZ: DoC weed-led Overseas: naturalised in at least 16 states in the eastern US - from Michigan to Connecticut, south to Georgia.

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
WRA score Reject (14). Not that commonly grown, which has probably contributed to its low level of naturalisation cf to its potential distribution. Would recommend including this species on the NPPA - to increase its profile as a pest plant and prevent further deliberate sale and spread.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Reasonable number of nurseries appear to offer this plant for sale. Scale of this industry would need to be determined - and an amnesty offered if substantial economic impact on particular growers.

Notes from TAG meeting
Nil

Albizia julibrissin

Common names
Silky acacia, silk tree, powderpuff tree, mimosa

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
YES
Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

YES - Flora IV: collected as naturalised from the wild only once, from a flax swamp in SW Nelson, 1939. A number of more recent records of naturalisation now - with 10 voucher specimens of naturalised material in Auckland Herbarium - oldest 1998 (AK235045).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

YES - CONSERVATION VALUES: A fast growing tree that establishes in open and disturbed sites, riparian areas, forest margins. Intolerant of shade, but tolerant of wind, salt and drought..

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Reject (22) NB Although A. julibrissin grows rapidly it is short lived because of its weak brittle wood and susceptibility to fusarium wilt (ISSG database). This is compensated for however, but its abundant seed production and long-lived soil seed bank. 90% of seed potentially viable after 5 years (ISSG database).

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Quite a lot of information available about this species, as it is recognised as invasive in a number of countries. Did not find info re allelopathy, palatability or toxicity to humans or animals - both of which could effect score.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Sold in the garden industry. Flora IV: often cultivated. Desired for its appealing fragrance, showy flowers and low maintenance requirement. Common Auckland street tree (Auckland Herbarium records for AK 221773)

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

10

NZ Nursery register 2004/05 genus level only

16

NZ Nursery Register 1997/98 genus level only

–

NZ Nursery register 1991/92 genus level only

–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Common tree in cultivation. Naturalised spread still limited - however significant potential to increase its range considerably and become far more of an environmental weed.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Physical Control (hand pull young seedlings, ensuring entire root is removed); Chemical Control (cut stumps and paint with herbicide or drill and inject larger trees using glyphosate or triclopyr). Biological Control: None available.

National eradication i.e. DOC, MAF

–

RPMS YES/NO refer to master document
NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Overseas: In the US naturalised from New Jersey to Louisana and in California. Potentially able to naturalise across much of the temperate US - http://hort.ifas.ufl.edu/trees/ALBJULA.pdf

Any known impact on human health?
Considered to be non-toxic to humans, but an alkaloid in the legumes may be toxic to livestock.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
WRA score high Reject (22). Widely distributed already as an ornamental species - but not widely recognised as invasive. Naturalisation seems to have increased over the last 15 years (greater numbers of herbarium records). High WRA score (reject (22)) - if species was not already present in NZ, would not be permitted entry as a new organism.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Widely cultivated - both as an ornamental and street tree.

Notes from TAG meeting
Nil

Alocasia brisbanensis

Common names
elephant’s ear, cunjevoi

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, Flora III. herbarium records since 1980 indicate it is now more common but it does not seem to be forming large populations.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)
Yes, if it becomes more widespread and with larger populations.

WRA result and score, for example "reject (18)". NOTE: "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject 19

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
a potential threat so it should be rejected.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
2 listings for A.macrorrhiza, a name sometimes used for this species

NZ Nursery register 2004/05 genus level only
41

NZ Nursery Register 1997/98 genus level only
12

NZ Nursery register 1991/92 genus level only
8

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ [i.e. garage sale, overseas, personal observations]. Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
could become more common and problematic environmental weed.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

—

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
—

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
Members of this genus are irritant on account of their content of needle-like calcium oxalate crystals (Burkill 1935). The leaves and uncooked roots are also irritant to bare skin and especially to the eyes.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
seems to be little evidence for inclusion
Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

threats not shown in NZ

Include in NPPA?
No - needs more information. Will be considered for next review round of Accord

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Lack of information on distribution/abundance and threats. Threat on mainland NZ uncertain, previously formed large populations on Raoul Island when goats were present (unpalatable and forest canopy damaged and more open). Not considered as bad as other weeds on Raoul (based on a report from Carol West, I've never been to Raoul Island)

Notes from TAG meeting
More info required from proposer

Alternanthera philoxeroides

Common names
Alligator weed, alligatorweed, pigweed

Synonyms
Achyranthes philoxeroides, Alternanthera paludosa, Alternanthera philoxerina, Bucholzia philoxeroides, Telanthera philoxeroides

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, currently established in northern North Island, scattered south of Auckland, locally abundant in Auckland and Northland. Two South Island sites

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, well established and invasive throughout New Zealand range

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Weed of drains, fertile wetlands and natural water body margins, invading pasture and cropping land, urban areas. No seed set, but stem/root fragments dispersed by water movement, contaminated machinery, contaminated wetland plants and deliberate spread

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
18  (22 P&C) (Reject) AWRAM (63)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Recognised as a major weed through much of its introduced range.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Mostly spread by contaminated machinery/produce. However, deliberately spread by some ethnic communities as a vegetable, also seen in a South Island nursery (Christchurch). Distributed with wetland plants for effluent treatment (several regions)

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Abundant from Auckland north, rapidly spreading in Waikato, establishing in Bay of Plenty. Potential habitat in lowland areas of both islands.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Difficult to control, both through lack of effective methods and its often aquatic habitat. Three biological control agents released, two established, but fail in terrestrial habitats and limited impact in aquatic habitats.

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Targeted for eradication at all sites south of Auckland.

Any known impact on human health?

This plant accumulates heavy metals and calcium oxalate which may be toxic to humans at certain levels

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Some deliberate dispersal of this plant, also distribution as a contaminant of wetland plants. Difficult to control once established, prevention of deliberate movement and raise public awareness is key to preventing further spread.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None

Include in NPPA?

YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting
Ammophila arenaria

Common names
marram grass

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, planted or self-established on dune areas in many parts of NZ. Also occasionally found inland.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals).
Has replaced spinifex and pingao in many dune areas, but destruction not yet complete: there is still time!

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Doc weediness score 32, my wra 21 ('reject')

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Pretty well right.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Being promoted on website: http://www.awhitu.org.nz/sandblow/sb1.html. Plenty of comments on websites about how effective it can be as a sand binder. Readily available if anyone wants to spread it.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
—
NZ Nursery register 2004/05 genus level only
—
NZ Nursery Register 1997/98 genus level only
—
NZ Nursery register 1991/92 genus level only
—

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Plenty of information about its deliberate planting in the past to bind sand dunes. ARC says being distributed by forestry companies to stabilise dunes.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Widespread but not quite everywhere, nor are all sites fully occupied.
Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Physical or biological control next to impossible. Selective or non-selective chemical feasible but requires ongoing effort.

National eradication i.e. DOC, MAF
no

RPMS YES/NO refer to master document
yes, Wellington only

NPPA YES/NO
yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
DoC weed-led in places, some site-led

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Displaces desirable natives like spinifex and pingao. Extremely invasive in sand dunes. Although very widely distributed, has not completely taken over all dunes and there is still hope. It would be silly if people were allowed to use it as a sand binder on blow-outs, new dunes, etc.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
It's so widespread and it is a brilliant sand binder. It's too late, and including it in the NPPA will have very little effect.

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Significant "value conflict" over this species eg debates over the appropriateness of sand dune stabilisation.

Notes from TAG meeting
Nil

Anredera cordifolia

Common names
Madeira vine, Mignonette vine

Synonyms
Boussingaultia cordifolia

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes. Herbarium specimens from wild plants at Allan Herbarium (CHR) and possibly other herbaria. Flora of NZ vol IV. Note that the populations are only spread vegetatively (via tubers that form on the roots and stem), there is no seed production reported from NZ (probably not seeding in Australia and possibly other countries where it is invasive). Tubers are an effective means of spread and tolerate drying, salt and burial (info reported from Australia that buried tubers survive up to 5 years).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Primarily considered to be conservation weed, for example smothering forest edges and gaps. etc. yes - awaiting original declaration

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject (8)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
non-seeding weeds typically score low in models as there are often several characters listed in relation to seed production.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
no listings for sale in catalogues checked, search on Google showed no websites from NZ referring to this species as a desirable plant

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
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NZ Nursery register 2004/05 genus level only
--

NZ Nursery Register 1997/98 genus level only
--

NZ Nursery register 1991/92 genus level only
--

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
I have never seen this species offered for sale or heard anyone talk about having planted it deliberately. It was considered a desirable ornamental in the past, but little evidence for it now. Possibly edible.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Widespread although not a particularly common species. Common in Auckland and Northland. Present but uncommon in Wellington, Nelson, Marlborough and Canterbury

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Considered to be a particularly difficult to control species in both NZ and Australia because the tubers are not killed by herbicide even if the foliage is. Tubers fragment easily making hand removal difficult. Even in small accessible sites this species is hard to control. (comments based on first-hand experience with this species and working with people who have experience trying to control it). physical control is of little help because tubers break off and grow new plants so easily.

National eradication i.e. DOC, MAF
--

27
RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Listed in 10 RPMSs, including 4 (Tasman, Marlborough, Wellington and Taranaki) with control/eradication objectives (the remainder are surveillance etc). DoC weed-led in Nelson/Marlborough Conservancy.

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Troublesome species with very limited ability to spread unless spread by people. Controlled with the aim of eradication in some regions. Its failure to produce seed limits its spread currently, uncertain why this is but it would be unwise to allow material of this species to be imported unless it was determined that a narrow genetic base was not the reason for the lack of seed production. While likelihood of sale is low, consequences are high as this species is still quite restricted and has limited means of spread without human dispersal.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Not a priority species compared to some others since there is no evidence for this species being deliberately cultivated and spread at present.

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Tubers are heavy and cause canopy collapse. The leaves and roots can be eaten.

Notes from TAG meeting
Nil

Araujia sericifera

Common names
Moth Plant, cruel plant, white bladder flower

Synonyms
Araujia hortorum

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
YES

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
YES - Flora IV: Nth Is - occasional throughout, esp Auckland area and coastal BoP, Sth Is, Blenheim (around gardens and waste places, plantations and other modified habitats). UO Declaration (DoC): Primarily in northern areas - naturalised Northland to Nelson/Marlborough. Able to invade almost any frost-free habitat - very wide environmental
tolerance (drought, damp, wind, salt, range of soils etc) - with frost the only limiting factor. 25 voucher specimens of naturalised material in Auckland Herbarium - oldest 1952 (AK28956).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands) n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

YES - CONSERVATION VALUES: fast growing shade-tolerant vine that rapidly smothers and replaces native vegetation, invading intact or disturbed forest, forest margins, shrublands, mangroves, inshore and offshore islands and open habitats e.g. coastal areas. Can cause physical harm to trees through weight of vine or strangulation of stems. Can kill insects by trapping them within the flower - e.g. butterflies, moths - giving rise to one of its common names - ‘cruel vine’. NUISANCE: Can also be a nuisance in gardens and amenity areas. HEALTH: Moth plant seeds are poisonous and the sap is a skin irritant.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Reject (27) NB: No info on possibility of allelopathic effects found. Also did not find any other species in this genus listed as invasive.

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Impacts and rapid spread of Araujia sericifera well documented - both here and overseas (e.g. Queensland). Fairly confident of robustness of assessment - apart from missing info as noted.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Was sold in the garden industry. Brought to NZ as an ornamental plant in the 1880s (GW). Sold as an alternative food source for monarch butterflies (DoC UO declaration).

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

2

NZ Nursery register 2004/05 genus level only

–

NZ Nursery Register 1997/98 genus level only

14

NZ Nursery register 1991/92 genus level only

–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Has been promoted as an alternative food for monarch butterfly caterpillars - with people cultivating it for this purpose.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Rapidly spreading in warm and coastal northern regions and northern SI. In the 20 years since Rhys Gardner et al. undertook Reserve Surveys of the Auckland Region (and warned of the potential of this plant) the spread has been significant and alarming. However, this invasive vine has reached nowhere near its potential distribution.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

CONTROL DIFFICULT - vines can resprout from stumps and bared areas reseed profusely. Very high seed production and seed viability. Seedlings shade tolerant. Physical Control (Pull out seedlings, dig out vines and leave in situ to die, remove any seed pods); Chemical Control (cut vines and coat stems with herbicide, or overall spray the plant).

Biological Control: None available at present although Landcare Research undertaking research to find one.

National eradication i.e. DOC, MAF
RPMS YES/NO refer to master document

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

NZ: Auckland City Council controlling species on Waiheke Island. ARC controlling species on regional parkland, with a Waitakere Control Zone included in their RPMS to try and halt the spread of this species into the ranges. DoC controlling species in site-led programmes, e.g. on Hauraki Gulf Islands. NB Its wind borne seeds are ble to spread long distances from infestations, e.g. 1.5km (Sullivan et al., 2005). Was a National Surveillance Plant Pest and included on the current NPPA list. Overseas: Also introduced to Australia, Israel, Sth Africa, United States - and recognised as a pestin some parts of these countries, e.g. noxious weed in California. Weed in Australia: Melbourne, Victoria, eastern states particularly SE Queensland and along the coast of NSW. (PIER database)

Any known impact on human health?
Sap can be irritant to humans, and medical literature reports cases of skin allergy following contact with latex.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
WRA score high Reject (27) . Potential still exists for people to want to propagate or retain this species as monarch butterfly food. Important to prevent its sale and spread to suitable regions it has not yet reached, and to maintain its profile as a highly invasive vine in areas where it has.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Already an NPPA species so no implications for nursery industry. Enforcement - Creates issues for nursery inspections and enforcement of NPPA where moth plant grows near wholesale and retain nursery outlets - as abundant wind-borne seed contaminates plant pots.

Notes from TAG meeting
Nil

*Aristea ecklonii*

Common names
Aristea

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
YES

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
YES - Flora III: Nth Is - North Auckland, Auckland City (Roadsides). First collection 1933 Helensville (CHR9064). ARC: spreading into forest areas via tracks and roadways in the Waitakere Ranges and Rodney District - forming dense monocultures. Thick swards have been noted under kauri forest. 25 voucher specimens of naturalised material in Auckland Herbarium - oldest 1959 (AK 71251).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Yes - CONSERVATION VALUES: invades forest margins, dunes and open areas (esp noted on clay banks), creating thick monocultures that outcompete ground cover/low growing species and reduce/halt regeneration. Very tolerant of semi-shade, low fertility environments. Spread via seed and vegetatively.

WRA result and score, for example "reject (18)"). NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Reject (17) NB: Unsure of whether it forms a soil seed bank. Also waiting on information re its 'Ease of Control'

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Previous WRA (Accept -3) did not recognise Aristea as an environmental weed.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
8

NZ Nursery register 2004/05 genus level only
7

NZ Nursery Register 1997/98 genus level only
7

NZ Nursery register 1991/92 genus level only
1

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Still available as a garden plant in all areas but the Auckland Region - desirable hardy perennial with bright blue flowers - that spreads to fill difficult sites.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Ornamental use over a long period of time - only just beginning to be recognised as a serious weed of some natural areas. Potential for far greater spread in NZ.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Waiting on Control information - emailed ARC staff who undertake control in the Waitakere Ranges.

National eradication i.e. DOC, MAF

–

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

No
Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
NZ: ARC weed-led control in the Waitakere Ranges - also a Surveillance Plant in their RPMS. DoC site-led control on Great Barrier Island. Overseas: Invasive in Sri Lanka - introduced 1889 http://www.biodiversityasia.org/books/ alien/Chapter%205.pdf

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
WRA score Reject (17). This species is only beginning to be recognised as an environmental weed - with naturalisation into a range of primary and secondary communities. Currently included only in the ARC's RPMS (as a Surveillance Pest Plant) - so sale still permitted through the rest of NZ.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Not huge implications for nursery industry - as plant not that widely sold or promoted. NB At the least should be an Unwanted Organism.

Notes from TAG meeting
Nil

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**Arum italicum**

Common names
Italian arum

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Flora of NZ vol III

If no to previous question, what potential does the species have to establish self-sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
From ARC - may take over pasture in some agricultural situations, can displace natives and form large populations in shaded areas such as forest understorey, poisonous.
WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ. 

reject (16)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

3 nurseries in Gaddum listed as selling this

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

3

NZ Nursery register 2004/05 genus level only

–

NZ Nursery Register 1997/98 genus level only

–

NZ Nursery register 1991/92 genus level only

–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Refered to as a desirable species for the garden on the following website. http://www.bestgardening.com/bgc/plant/winter02.htm

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Widespread and relatively common species in the North and South Islands. Certainly not yet everywhere it could be.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Considered difficult to control with herbicides (ARC, personal information)

National eradication i.e. DOC, MAF

No

RPMS YES/NO refer to master document

–

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

not widely controlled in my experience as it is mostly in areas that are not a priority for weed control, or there are worse weeds present. I used to receive public enquiries about controlling this species in garden situations.

Any known impact on human health?

All parts of the plant are poisonous. The sap of Arum spp. contains oxalate crystals, which can irritate the skin, mouth, tongue, and throat, resulting in throat swelling, breathing difficulties, burning pain, and stomach upset. Sap of these plants can cause a skin rash or irritation.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Weedy species, not easy to control, deliberate spread by people probably main source of longer distance dispersal
Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Not a priority species because it is relatively common and not particularly invasive, no evidence for this species being a particular priority for control (eg no RMPSs). Sale probably occurring but impact of deliberate sale probably relatively low because it is well established.

Include in NPPA?
No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Arundo donax

Common names
Giant reed, arundo grass

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, currently established in northern North Island, scattered south of Auckland (Waikato, Bay of Plenty, Hawkes Bay, Manawatu), locally abundant in Auckland and Northland. Few sites in norther South Island and Westland (down to Haast)

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, well established in waste areas and riparian sites in northern areas

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
A riparian weed overseas, but mostly in waste areas in New Zealand. Potential displacement of native riparian vegetation, obstruction to access. No seed set, limited ability to spread outside of clonal stand expansion.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
2 (4 M. Mulvaney) (Further evaluate)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Variegated plants present and still distributed. Not commonly sold (only one nursery listed - specialist bamboo nursery)

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
NZ Nursery register 2004/05 genus level only

1

NZ Nursery Register 1997/98 genus level only

2

NZ Nursery register 1991/92 genus level only

1

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Very tall (to 10 m), arching stems, limited appeal.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Abundant from Auckland north. Potential distribution probably limited to warm temperate areas of New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Difficult to control, either physical removal or foliar/cut-stump treatment with herbicide.

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

—

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

ARC RPMS listed as Surveillance (banned from sale and distribution) and Community Initiative (local control)

Any known impact on human health?

It can cause contact dermatitis, and the medical literature reports for instance serious cases in a number of musicians caused by the use of musical instruments made of this plant.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Some deliberate dispersal, potential threat to riparian zones in warmer areas. Many wasteland sites possibly originate from garden dumpings. NPPA status could raise profile of this with public.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Used to produce musical reeds, also used for industrial cellulose production elsewhere. Variegated plant apparently does set seed, noted in gardens around Auckland

Include in NPPA?

YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

This includes the variegated form with similar properties
Asparagus asparagoides

Common names
Smilax, Bridal creeper

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, widely established, particularly in northern forested parts of North Island. Scattered elsewhere in the North Island. Present in Nelson Marlborough region but not present further south.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
N/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
A smothering vine capable of dominating scrub, open clearings, and forest understories of native vegetation

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (17)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
High score reflects wide environmental tolerances, prolific seed production, smothering growth habit

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
On NPPA so not so widely sold as previously

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
—

NZ Nursery register 2004/05 genus level only
20

NZ Nursery Register 1997/98 genus level only
28

NZ Nursery register 1991/92 genus level only
35

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Scattered at a provincial scale. Within provinces, common locally. Much wider potential particularly in Northern NZ.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Relatively easily controlled with chemicals but often difficult to detect outlying plants before they have fruited. Grows amongst native species. Has large underground tubers difficult to kill.

National eradication i.e. DOC, MAF
No

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Controlled by DOC in some regions

Any known impact on human health?
There are numerous reports of allergy to Asparagus plants in the medical literature. Some authors consider these plants as relevant sources of occupational allergy, where severe disease (anaphylaxis or asthma) is common. The berries and uncooked shoots in particular can be toxic. Contact dermatitis is often described.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
A very troublesome weed with the potential for much further spread that is often grown as an ornamental

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
No strong reasons, for there are plenty of substitutes for horticulture.

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Asparagus densiflorus

Common names
bushy asparagus, fern asparagus, emerald feather, Sprengeri fern, Sprenger’s asparagus, foxtail fern, possum tail

Synonyms
A.aethiopicus

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

A smothering vine capable of dominating scrub, open clearings, and forest understoreys of native vegetation

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject (17)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

High score reflects wide environmental tolerances, prolific seed production, smothering growth habit

Objective evidence it has been or is deliberately distributed in NZ. (Discussed in section 3.2.1 of the evaluation criteria report. Still widely sold

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

3

NZ Nursery register 2004/05 genus level only

20

NZ Nursery Register 1997/98 genus level only

28

NZ Nursery register 1991/92 genus level only

35

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

feathery foliage has appeal in cultivation

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Only at the very start of its invasion in N.Z., but range of sites indicate fairly wide environmental tolerances and wide potential spread, especially coastal.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Unknown. But it has a large tuber which would suggest control may be difficult.

National eradication i.e. DOC, MAF

–

RPMS YES/NO refer to master document

Yes (ARA)

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

38
Any known impact on human health?
There are numerous reports of allergy to Asparagus plants in the medical literature. Some authors consider these plants as relevant sources of occupational allergy, where severe disease (anaphylaxis or asthma) is common. The berries and uncooked shoots in particular can be toxic. Contact dermatitis is often described.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
A relatively new weed that shows all the characteristics of others in the genus and opportunity should be taken to control it now.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Only that folks like it.

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Cultivars present - uncertain of the stability and invasiveness (eg cv "Meyeri")

Notes from TAG meeting
Check info - exclude meyeri.

Asparagus scandens

Common names
Climbing asparagus

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, widely established, particularly in northern forested parts of North Island. Present in Nelson Marlborough region but not common further south.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
A smothering vine capable of dominating scrub, open clearings, and forest understoreys of native vegetation. Strangles native plant stems.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject (17)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
High score reflects wide environmental tolerances, prolific seed production, smothering growth habit

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
On NPPA so not so widely sold as previously

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

--

NZ Nursery register 2004/05 genus level only
20

NZ Nursery Register 1997/98 genus level only
28

NZ Nursery register 1991/92 genus level only
35

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Scattered at a provincial scale. Within provinces, common locally. Much wider potential particularly in Northern NZ.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Relatively easily controlled with chemicals but often difficult to detect outlying plants before they have fruited. Grows amongst native species. Has large underground tubers difficult to kill.

National eradication i.e. DOC, MAF

--

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

DoC weed-led

Any known impact on human health?

There are numerous reports of allergy to Asparagus plants in the medical literature. Some authors consider these plants as relevant sources of occupational allergy, where severe disease (anaphylaxis or asthma) is common. The berries and uncooked shoots in particular can be toxic. Contact dermatitis is often described

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

A very troublesome weed with the potential for much further spread that is often grown as an ornamental

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Quite a popular species because of its feathery foliage. But no strong reasons, for there are plenty of substitutes for horticulture.

Include in NPPA?

YES - high priority
Asparagus spp. (excluding officinalis)

Common names
Wild asparagus

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Some have, others not

If no to previous question, what potential does the species have to establish self-sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
N/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals. The genus as whole can be considered to have weed potential even if they have not naturalised here yet. Smothering vines capable of dominating scrub, open clearings, and forest understories of native vegetation. Strangles native plant stems.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
N/a because of genus level

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
All species except the edible A. officinalis would receive a reject score because of their weedy relatives and features in common.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Several are widely sold

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
12

NZ Nursery register 2004/05 genus level only
20

NZ Nursery Register 1997/98 genus level only
28

NZ Nursery register 1991/92 genus level only
35

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

All species still only in cultivation or at their very early stage of naturalisation have potential to be widely distributed in at least northern New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Relatively easily controlled with chemicals but often difficult to detect outlying plants before they have fruited. Grows amongst native species. Has large underground tubers difficult to kill.

National eradication i.e. DOC, MAF
No

RPMS YES/NO refer to master document
–

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
There are numerous reports of allergy to Asparagus plants in the medical literature. Some authors consider these plants as relevant sources of occupational allergy, where severe disease (anaphylaxis or asthma) is common. The berries and uncooked shoots in particular can be toxic. Contact dermatitis is often described

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
The history of the genus in N.Z. suggests they are all potentially very troublesome weeds and as several are often grown as ornamentals there is the opportunity to prevent them establishing.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Several are used in florist displays but there are substitutes.

Include in NPPA?
No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
A.setaceus (commonly cultivated here) is recorded as invasive in Australia. I know little about other species in cultivation (apart from officinalis) here so uncertain what effect it would have banning the whole genus (excluding A.officinalis)

Notes from TAG meeting
Do not include spp.

Bartlettina sordida

Common names
Bartlettina
Synonyms
Eupatorium sordidum

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, scattered in Auckland and Northland, also collected from Lower Hutt garden plants elsewhere.

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, established in scrub margins from seed

If no to previous question, what potential does the species have to establish self-sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Impacts appear limited, with the species currently present in disturbed areas although reported to form dense clumps which could exclude native species.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
minus 2 (Accept)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Uncommon garden plant (only one nursery listed - Hawkes Bay)

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
1, as Eupatorium sordidum

NZ Nursery register 2004/05 genus level only
—

NZ Nursery Register 1997/98 genus level only
—

NZ Nursery register 1991/92 genus level only
—

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Attractive foliage and flowers, promoted as a desirable species on web (UK and USA).

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Frost intolerant, native distribution in montane cloud forest of Mexico. Currently in scattered in Northland/Auckland. Potential distribution in frost-free high rainfall areas.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Relatively easy to control, manual control or cut and paint with various herbicides.

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Availability for deliberate distribution could extend the distribution of this species in gardens and thus threaten new areas where it is currently absent.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Possible challenge regarding demonstrable impact although it has naturalised so therefore must be influencing the local ecology.

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
A low WRA score and although naturalised, impacts not demonstrated. Not naturalised in other countries. But, appears to be actively promoted in other countries and if removed from NPPA could increase propagule sources.

Notes from TAG meeting
Sufficient information available to include on Accord, but it would be useful to gather further information for the future

Berberis darwinii

Common names
Darwin’s barberry

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, found everywhere in NZ from Northland to Stewart Island.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals).
Grows in bush margins and openings in bush where it can displace natives and restrict regeneration.
WRA result and score, for example "reject (18)". NOTE: “reject” means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

*Doc weediness score 26, mul’s wra 26 (‘reject’)*

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

OK

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report.

Planted in gardens

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

—

NZ Nursery register 2004/05 genus level only

—

NZ Nursery Register 1997/98 genus level only

—

NZ Nursery register 1991/92 genus level only

—

**Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ** [i.e. garage sale, overseas, personal observations]. Include comments on appeal as a cultivated plant

I think it’s quite attractive. Was put up for classification as noxious under old legislation but not seen as agricultural threat

**Known vs potential distribution in NZ (abundance in New Zealand)** (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Already widespread in NZ, but could increase its prevalence in many areas.

**Ease of control of the plant as a species** (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Short-lived seedbank. After physical damage and grazing resprouts from all parts. Frill, drill or cut stump + herbicide probably kills it.

**National eradication i.e. DOC, MAF**

No

**RPMS YES/NO refer to master document**

Yes

**NPPA YES/NO**

Yes

**Notifiable organism**

No

**Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.**

*Doc weed-led*

**Any known impact on human health?**

The fruit are suggested as being edible. However, some authors describe that the sap/thorns of Berberis can cause dermatitis, and these plants can cause minor toxicity if ingested

**Reasons for inclusion in NPPA.** A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Invades margins of native bush and displaces natives. Although reasonably attractive as a garden plant doesn’t seem to be traded any more. Seeds spread by birds and possums.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Almost entirely bush margin and open spaces within bush. Might not be a really serious threat to conservation. Promoted and used by forestry companies.

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

**Bomarea caldasii**

Common names

Synonyms
several collections initially identified as B. multiflora

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, 1 record Flora III. Herbarium records since Flora III (1980) indicate it is now more common and widespread.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Yes. Although only naturalised for a short period it is becoming more common and has the potential to cause serious impacts.

WRA result and score, for example “reject (18)”. NOTE - “reject” means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject 25

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
oses a real threat to forest margins etc. should be rejected

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

2
NZ Nursery Register 1997/98 genus level only
4

NZ Nursery register 1991/92 genus level only
2

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings? Widespread, common, Nth Island, Sth Island, Regions? Habitats?
has the potential to become more widespread and common.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
—

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
Bomareae spp. appear to be a natural source of the compound alpha-methylene-gamma-butyrolactone, which causes plant contact dermatitis (Guin & Franks 2001)

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
may warrant inclusion to prevent its further cultivation and hence naturalisation

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
not well established in the wild as yet

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Bomarea multiflora
Common names
Bomarea, Climbing alstromeria

Synonyms
 Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

few collections as most in CHR have been identified as B. caldesii

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Possibly although as it may not be as commonly cultivated as B. caldesii it may not have a ready source of seed/offshoots.

WRA result and score, for example "reject (18)". NOTE: "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject 25

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

poses a real threat to forest margins etc should be rejected

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only
2

NZ Nursery Register 1997/98 genus level only
4

NZ Nursery register 1991/92 genus level only
2

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

has the potential to become more widespread and common.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

--

National eradication i.e. DOC, MAF
--
RPMS YES/NO refer to master document
Yes

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
DoC weed-led

Any known impact on human health?
Bomareae spp. appear to be a natural source of the compound alpha-methylene-gamma-butyrolactone, which causes plant contact dermatitis (Guin & Franks 2001)

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
may warrant inclusion to prevent its further cultivation and hence naturalisation

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
not well established in the wild as yet

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Are any wild records of this species or have they all been confirmed as B.caldasii? Can the two species be distinguished when not in flower?

Notes from TAG meeting
Difficulty with ability to distinguish when not in flower.

**Bryonia cretica**

Common names
White bryony

Synonyms
Bryonia dioica

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, but of very limited distribution

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
Hard to know, but suspect could spread

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)
Climbing vine, huge tubers each of which has to be found and killed. Yes, it has potential to cause damage and be hard to kill.

WRA result and score, for example "reject (18)"). NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Doc weedy score 26, my score 'reject (17)'

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Several unknown characters keeps score fairly low.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ [i.e. garage sale, overseas, personal observations]. Include comments on appeal as a cultivated plant

Naturalised in California. Related B. alba naturalised further north in USA.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Only found in Makino SR (Wanganui) and Aria (Te Kuiti). Suspect could spread further.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Tubers, once found, are cut open and stuffed full of picloram. Seems to work well, but finding individuals can be hard.

National eradication i.e. DOC, MAF

yes

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

DoC weed-led

Any known impact on human health?

Some suggesting that the sap may cause skin irritation, and if ingested it is purgative.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Climber (to 6m) and capable of growing in bush. Seeds spread by birds. Very little of it and chance of eradication. We don't want more of it planted.
Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

May not have potential to be a serious problem, but we don't know.

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

**Buddleja davidii**

Common names
Buddleja, butterfly bush, summer lilac

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p448, Vol IV

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Fully naturalised. N.: abundant; S.: common in the northern half, less common further south; St.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Dense infestations of Buddleia compete with indigenous vegetation of rivers and impede the growth and reproduction of other species of trees and shrubs. Monospecific stands of Buddleia impede access to rivers. Seedlings, which have superficial rooting, are easily carried away in floods and may form blockages, causing erosion of banks.

WRA result and score, for example "reject (18)". NOTE - “reject” means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Accept (-4)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
15

NZ Nursery register 2004/05 genus level only
24
NZ Nursery Register 1997/98 genus level only
42

NZ Nursery register 1991/92 genus level only
34

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
No suppliers in RHS Plant Finder (although 151 suppliers of other B species).

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Widely spread from Timaru in SI to North of Auckland - 8 map references. Riverbanks, roadsides and disturbed sites, particularly around forested areas, waste places in and around settled areas. Buddleia or butterfly bush is abundantly naturalised to the point of being a nuisance in some areas. It has spread deep into the Urewera and other remoter parts of the North Id, and tolerates a wide range of soil conditions, even growing on the almost raw lava of Rangitoto Id. Potential unknown.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Well controlled by glyphosate and by metsulfuron-methyl. Biological: Researchers in New Zealand are currently studying the possibility of biological control with the coleopter Cleopus japonicus.
Integrated management: Management methods such as digging it out are applicable only to minor infestations at the initial stage of invasion. Cutting inflorescences before they bear fruit is a preventative technique, which makes it possible to limit the production of the seeds. Disturbances caused by uprooting young Buddleia shrubs actually assist its development. After uprooting, planting alternative species is recommended. It is necessary to remove uprooted plants which can grow as cuttings. When it is cut, Buddleia grows back from the stump very vigorously. Cutting must be carried out at the base of the seedling and be accompanied by an immediate white-washing of the stump with a systemic weedkiller.

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
—

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
None

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
WRA score = -4 (accept). Already widely spread in NZ (especially on DOC land), perhaps nearly fully occupying its potential range? While the genus has a history of cultivation and sale in NZ, preventing sale now will have little impact on future spread in NZ. The species is also well controlled by herbicides. No proposal has been submitted for the inclusion of this species.
Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

**Buddleja madagascariensis**

Common names
Madagascar buddleja, butterfly bush, smoke bush, orange buddleia

Synonyms
Buddleia madagascariensis

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p450, Vol IV

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

WRA result and score, for example "reject (18)". NOTE - “reject” means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (14)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
2

NZ Nursery register 2004/05 genus level only
24

NZ Nursery Register 1997/98 genus level only
42

NZ Nursery register 1991/92 genus level only
34
Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ [i.e. garage sale, overseas, personal observations]. Include comments on appeal as a cultivated plant

No suppliers in RHS Plant Finder (although 151 suppliers of other B species)

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?:  Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Nelson to Northland - 3 map references plotted. The limited spread of B. madagascariensis from cultivation suggests that frs and seeds may not be formed in N.Z., and in fact the small purplish black berries are rarely seen anywhere in cultivation. Potential unknown.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Well controlled by glyphosate and by metsulfuron-methyl. "Katie Cassel of the Kokee Natural History Museum (Kokee Museum) reported good control of stems <3 inches diameter with triclopyr ester at 20% in crop oil applied to basal bark and to larger stems that were frilled." (Motooka et al., 2002)

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
—

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
DoC weed-led

Any known impact on human health?
No known harm

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
WRA = 14 (Reject). Limited current distribution but with assumed wide potential dist. It’s weedy overseas. The genus is in the plant trade overseas (ornamental) and species in the genus as currently being in NZ.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Need more definitive information on the reason for the apparent inability of this species to produce fruit in NZ. Reported to seed freely in Hawaii. What might be reasons for lack of seeding? Lack of pollinators, self-incompatability and insufficient genetic material in NZ, climate unsuitability, allee effects

Notes from TAG meeting
Nil

Caesalpinia decapetala
Common names
Mysore thorn

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
debatable

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
yes, but only on the Kermadec Islands, not mainland NZ (Fl of NZ vol IV)

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
On Raoul Island it forms dense, spiny, scrambling thickets which prevent the recruitment of other plant species. It is considered the worst weed on Raoul Island (there is a major control programme there)

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject (14)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
quite a few questions were unanswered as these is limited information in the UO declaration and I don't know a lot about this species

Objective evidence it has been or is deliberately distributed in NZ. (Discussed in section 3.2.1 of the evaluation criteria report. no listings for this species in catalogues checked although the genus is listed, search on Google showed no websites from NZ refering to this species as a desirable plant

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
–

NZ Nursery register 2004/05 genus level only
3

NZ Nursery Register 1997/98 genus level only
3

NZ Nursery register 1991/92 genus level only
–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Several Caesalpinia species cultivated as ornamentals although probably only in the north since they are more subtropical, this species not reported from mainland NZ

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Potential distribution uncertain. Uncertain how well it would grow in mainland NZ, although some overseas website have records of this species growing well in temperate areas such as Italy
http://www.mediterraneangardensociety.org/plants/Caesalpinia.decapetala.html
Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

The control programme on Raoul Island has taken many years, with the seedback being particularly troublesome, but I don’t know how the difficulty of control of this species compares to others.

National eradication i.e. DOC, MAF
No

RPMS YES/NO refer to master document
–

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Major control programme on Raoul Island (DOC)

Any known impact on human health?
As a robust and evergreen shrub that forms impenetrable thickets it causes mechanical injuries due to its numerous thorns. Its presence would certainly affect human activities, both as a health hazard and nuisance.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Certainly a serious weed where it occurs on Raoul Island, should ensure that it doesn’t arrive on mainland NZ and get spread.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

How to classify a species present only on an offshore island?

Include in NPPA?
No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
TAG considers absent from NZ (excl Raoul). Retain UO status

Calluna vulgaris(excluding double flowered cultivars)

Common names
Heather, ling

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, notably in National Park but also in other 'moorland' areas.
If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)
Yes, plant found in scrub and forest margin, shrubland, tall and short tussockland, replacing native vegetation, probably permanently.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

WRA result and score: "reject (20)"

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
ok

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Cultivars planted in gardens. Deliberately spread in Tongariro and elsewhere.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
–

NZ Nursery register 2004/05 genus level only
–

NZ Nursery Register 1997/98 genus level only
–

NZ Nursery register 1991/92 genus level only
–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Still available in garden shops.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Grows well in Tongariro NP and other similar environments and could become more widespread.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Overall sprays not terribly effective. Individual plants can be killed with herbicides, but that is labour-intensive.

National eradication i.e. DOC, MAF
–

RPMS YES/NO refer to master document
–

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

DoC weed-led
Any known impact on human health?
Ingestions of these plants, especially in large amounts, are expected to cause serious effects to major body organs such as the liver, heart or kidneys.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Weedy elsewhere (naturalised along Atlantic coast of North America, between Quebec and New Jersey, and in Tasmania). Could establish much more widely in cool, acid soils. We don't need any more. Hard to control, too.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Popular and quite common garden plant. Already quite widespread. Would banning it make any difference?

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Exclude double flowered cultivars where male and female parts are petalloid. Steering Group would like a good summary of the issue to inform decision making. RA group to complete.

Cardiospermum grandiflorum

Common names
Balloon vine

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

Yes, 'casual' in Auckland City, Mt Albert. Auckland, Riverhead, Coatesville Road. Auckland, Dairy Flat, Rosenheath

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Regarded as 'casual' so far.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
Very invasive and widespread on Rarotonga, Cook Islands. Invasive in Australia. Some potential here, but probably only in warmer areas.

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Summarise information provided with species proposals.
In subtropical South Africa invades forest margins, watercourses, urban open spaces. Regarded there as a 'transformer'.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
No DOC score, my wra 17 ‘reject’.

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Many unknowns, especially climate. Subtropical status makes it unlikely problem except in Northland and perhaps coastal areas.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
-

NZ Nursery register 2004/05 genus level only
-

NZ Nursery Register 1997/98 genus level only
-

NZ Nursery register 1991/92 genus level only
-

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
-

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Unlikely to become a widespread problem, most likely limited to warmer parts of country

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
South Africans looking at biological control. In Brisbane rain forest recommendation is treat cut vines with glyphosate or spray recovering veg after cutting. So labour-intensive problem.

National eradication i.e. DOC, MAF
-

RPMS YES/NO refer to master document
-

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Weed elsewhere (Hawaii, South Africa, etc,) and could become problem here in warm zone. Hard to control. Not really naturalised, yet.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
May not have potential to naturalise and become a serious problem, but we don't know.

Include in NPPA?
Cardiospermum halicacabum

Common names
Balloon vine

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Not yet naturalised, but widely cultivated

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
Common in Fiji in natural environments and as a sugar cane weed. Also in other Pacific Islands, and in many states in the eastern half of the USA.

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
In subtropical South Africa invades forest margins, woodland, grassland, river banks, kloofs, floodplains, rocky sites. Not regarded there as weedy. Considered 'invasive' in 4 US states.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
No DOC score, Pacific Island score (similar to ours) 12 , my wra score 17 'reject'

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Many unknowns, especially climate suitability. Subtropical status makes it unlikely problem except in Northland and perhaps coastal areas.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
--

NZ Nursery register 2004/05 genus level only
--

NZ Nursery Register 1997/98 genus level only
--

NZ Nursery register 1991/92 genus level only
--
Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ [i.e. garage sale, overseas, personal observations]. Include comments on appeal as a cultivated plant
Vol IV says 'widely cultivated'. Available from several overseas websites. Apparently has some herbal properties.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Not really naturalised, unlikely to become a widespread problem, most likely limited to warmer parts of country

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Probably similar to Cardiospermum grandiflorum.

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
—

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
Leaves are irritant and known to cause dermatitis

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Considered invasive in 4 US states, yet promoted on www as 'a good candidate for covering trellises', and as 'a perfectly wonderful plant'. Could become problem here in warm zone. Hard to control. Not really naturalised here, yet. Precautionary principle says do it anyway.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
May not have potential to naturalise and become a serious problem, but we don't know.

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Carex divisa

Common names

Synonyms
Nil
Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, very scattered from Northland (Kerikeri) to Otago (Maniototo Plain)

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, sward forming in saline soils

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)
Forms dense stands apparently displacing other salt marsh vegetation.

WRA result and score, for example "reject (18)". NOTE: "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
11 (Reject)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
No record of species being sold or distributed as an ornamental plant. First collected in 1871, possibly a contaminant (Waitemata Harbour)

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only
234

NZ Nursery Register 1997/98 genus level only
158

NZ Nursery register 1991/92 genus level only
50

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Not sold in New Zealand or overseas, few desirable features

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Currently very scattered in coastal areas. Any coastal habitat with saline soils. Appears to be poorly dispersed.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Control with glyphosate recommended, rarely controlled.

National eradication i.e. DOC, MAF
No

RPMS YES/NO refer to master document

NPPA YES/NO
No
Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
The leaves of some Carex sp. have fine sawing and cutting edges, made harder by the presence of silica in the superficial cells, can cause mechanical injury.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Ecological weed may threaten a range of endangered spp. (including Carex litorosa) and alter salt marsh ecological processes.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Not sold, propagated or deliberately distributed.

Include in NPPA?
No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

*Carex divulsa*

Common names

Synonyms
Nil

Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, common in many parts of the North island, also as far south as Canterbury in the South Island

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, forms dense tufts in grassland and waste areas, often in shaded places

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Usually in modified habitats, apparently palatable, but may displace more desirable forage species.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
10 (Reject)
Comments on WRA score  
(Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ.  
(Discussed in section 3.2.1 of the evaluation criteria report."

Was sold in the past (possibly still) and planted (probably mistaken for a native species)

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only 
234

NZ Nursery Register 1997/98 genus level only  
158

NZ Nursery register 1991/92 genus level only 
50

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Possibly sold in New Zealand, but several overseas web sites offering the cultivar 'Golden Fountains' of this species.

Known vs potential distribution in NZ (abundance in New Zealand)  
(Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?:  Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Appears to be rapidly increasing its naturalised range.

Ease of control of the plant as a species  
(Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Control with glyphosate recommended, rarely controlled.

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document

NPPA YES/NO  
No

Notifiable organism  
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

The leaves of some Carex sp. have fine sawing and cutting edges, made harder by the presence of silica in the superficial cells, can cause mechanical injury.

Reasons for inclusion in NPPA.  
A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Possibly a minor agricultural/ecological weed/ weed of rough pasture

Reasons against inclusion in NPPA.  
Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Not commonly sold, propagated or deliberately distributed in New Zealand.

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Carpobrotus edulis & hybrids

Common names
iceplant

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
yes. North and South Islands. Flora IV.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Yes. Ecological and conservation impacts on coastal dune systems in particular.

WRA result and score, for example "reject (18)". NOTE - “reject” means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject 19

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
genus listed in NZ nursery register.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
--

NZ Nursery register 2004/05 genus level only
89

NZ Nursery Register 1997/98 genus level only
--

NZ Nursery register 1991/92 genus level only
--

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
hybrids with Disphyma australe may have some appeal since they have different leaves and flowers.
Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
This is already very widespread but has the potential to continue to increase its distribution and abundance.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

---
National eradication i.e. DOC, MAF
---
RPMS YES/NO refer to master document
---
NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
Non-toxic

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Should be included so as it is not deliberately propagated and spread, beyond what it is doing naturally through seeds and rooted pieces of stem.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Limited deliberate cultivation and propagation.

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Note - hybrid is not common. Remove hybrids

**Caulerpa taxifolia**

Common names
Green seaweed, killer algae

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Probably no, plant was found in aquarium at Auckland Zoo but has since been eradicated
Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

No

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
The temperature range for the invasive Mediterranean strain is 7 C - 32.5 C, while the maximum salinity is 38 ppt. It could occur in any marine area within this range.

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Extremely invasive and smothers other algal species, seagrasses and sessile invertebrate communities.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

8.5 (Reject)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

None - possible contamination with imports of 'living rock' for marine aquaria

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

–

NZ Nursery register 2004/05 genus level only

–

NZ Nursery Register 1997/98 genus level only

–

NZ Nursery register 1991/92 genus level only

–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Grading? Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Not known from New Zealand. Could be problematic in many marine habitats in New Zealand

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Extremely difficult requiring diver operated suction dredging, smothering or injecting chlorine under PVC tarpaulins

National eradication i.e. DOC, MAF

No

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

Yes

Notifiable organism

No
Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?
Although the toxin caulerpenyne is in an important secondary metabolite produced by Caleurpa, it seems that the concentrations required to result in cellular toxicity means that the risks of cutaneous and/or food intoxication to humans can be considered minimal (Parent-Massien et al 1996)

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Huge potential threat to marine habitats.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none

Include in NPPA?
No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
No longer present in New Zealand. Recommend increasing UO status to Notifiable Organism.

Notes from TAG meeting
Nil

Celastrus orbiculatus

Common names
Climbing spindle berry, Oriental bittersweet

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
yes, spreading vegetatively and by seed. (Fl of NZ vol IV). DOC bioweb database.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals).
Strangling vine, considered likely to displace native species and damage native forest canopy. In USA considered a pest of forestry as vines grow tightly around trees causing growth distortions

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject (17)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
recognised invasive weed in NZ and USA so good information available on invasive properties.
Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Genus listed in Nursery Register for 91/92, uncertain whether this species.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

1

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant. I have spoken directly to people who report having bought it although I have never personally seen it for sale.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings: Widespread, common, Nth Island, Sth Island, Regions? Habitats? Widespread in the North Island, more limited in the South, quite localised overall. Climatic tolerances indicates it is likely to grow in most parts of NZ. A long way from reaching all potential environments.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Vigilant is registered for control as a stump treatment and other herbicides are effective applied in this way, but large sites can be difficult to treat using this method. More difficult than something like old man's beard but not as difficult as Maderia vine.

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
DoC weed-led in about 5 conservancies (most areas where it is known). In 8 RMPSs, 7 of which are eradication or control to low levels.

Any known impact on human health?
Berries appear to be toxic to humans.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report.)
A serious weed which is at relatively low levels and is subject to significant control programmes by government agencies. Likely to be sold if allowed.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Can't see any reason for exclusion. Species is already banned so shouldn't have any commercial impact.
Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

**Ceratophyllum demersum**

Common names
Hornwort, coontail

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, widespread throughout North Island, abundant in Waikato and Manawatu catchments. South Island sites near Motueka.

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, submerged species invasive throughout New Zealand range

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Extremely invasive, disrupts hydro-electric power generation, drainage, irrigation and recreational activities. Displaces other vegetation from much of submerged range (to 12+ m).

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
17 (22 P&C) (Reject) AWRAM (67)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Was sold in New Zealand until 1982 (Noxious Plant Act 1978). Possibly still spread by hobbyists.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
—

NZ Nursery register 2004/05 genus level only
—

NZ Nursery Register 1997/98 genus level only
—

NZ Nursery register 1991/92 genus level only
—
Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Commonly referred to in international aquarium literature as an oxygenator plant for ponds/aquaria.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gratings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Widespread in many North Island areas, absent from most of South Island. Could be problematic in many currently unimpacted water bodies in New Zealand. Grows under ice to subtropical waters in native range

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Difficult to control, both through lack of effective methods and its aquatic habitat.

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
DoC weed-led - South Island

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Only spread by human activities, either deliberate or accidental (e.g. contaminated nets, boats and drainage machinery). NPPA inclusion reduces long-distance spread.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None, less invasive submerged plants available

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Cestrum aurantiancum

Common names
Orange cestrum

Synonyms
Nil
Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

yes (Fl.NZ vol IV) Auckland to Poverty Bay and Taranaki. Seed spread limited, mostly by suckers.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Not a lot of detail in proposal and I have never seen this species in the wild. In proposal reported as invading pastures and becoming a danger to livestock (plant is toxic) and could harm natural ecosystem by forming dense undergrowth. Considered invasive and banned (category 1) in South Africa http://www.plantzafrica.com/miscell/aliens1.htm

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject (12)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Limited information, mostly gets the score based on toxicity and the fact that it is reported as a weed.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

not listed in Gaddum but other members of the genus sold.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

—

NZ Nursery register 2004/05 genus level only

—

NZ Nursery Register 1997/98 genus level only

—

NZ Nursery register 1991/92 genus level only

—

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Google search showed no NZ websites either selling or promoting as a desirable plant

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

n/a

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Uncertain, Environment Bay of Plenty is undertaking control trials.

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

No

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
one of the "Cestrum spp." listed in the Environment BOP strategy.

Any known impact on human health?
All Cestrum spp. are toxic to some extent if ingested, but no specific information is available for C.aurantiancum.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Uncertain - very limited information

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Uncertain about the level of impact from this species and no records of this species being sold.

Include in NPPA?
No - needs more information. Will be considered for next review round of Accord

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Cestrums were considered potentially serious back in the days when plants were only noxious if they were likely to affect farmed livestock.

Notes from TAG meeting
Need more info from proposer

Cestrum elegans

Common names
Red cestrum

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
yes (Fl.NZ vol IV). Reported in Fl NZ vol IV as commonly cultivated and occasionally escapes.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Not a lot of detail in proposal and I have never seen this species in the wild. In proposal reported as invading pastures and becoming a danger to livestock (plant is toxic) and could harm natural ecosystem by forming dense undergrowth. Considered invasive and banned (category 1) in South Africa http://www.plantzafrica.com/miscell/aliens1.htm
WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject (14)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Limited information, mostly gets the score based on toxicity and the fact that it is reported as a weed.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Listed in Gaddum. Other members of the genus also sold.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

1

NZ Nursery register 2004/05 genus level only

--

NZ Nursery Register 1997/98 genus level only

--

NZ Nursery register 1991/92 genus level only

--

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ [i.e. garage sale, overseas, personal observations]. Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Current distribution patchy but widespread (sites near Auckland, Waikato, Taranaki, Marlborough, Karamea (Fl.NZ vol IV) and presumably Bay of Plenty and Gisborne since they have listed the species in their RPMSs). Probably more widespread in cultivation and likely to naturalise in other areas.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Uncertain, Environment Bay of Plenty is undertaking control trials.

National eradication i.e. DOC, MAF

--

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

No

Notifiable organism

no

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Listed as total control plant is Gisborne and is one of the "Cestrum spp." listed in the Environment BOP strategy.

Any known impact on human health?

All Cestrum spp. are toxic to some extent if ingested, but no specific information is available for C. elegans.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Currently sold and being controlled by councils in some areas.
Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Uncertain about the level of impact from this species.

Include in NPPA?
No - needs more information. Will be considered for next review round of Accord

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Cestrums were considered potentially serious back in the days when plants were only noxious if they were likely to affect farmed livestock.

Notes from TAG meeting
Need more info from proposer

Cestrum nocturnum

Common names
Queen of the night, night cestrum

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
yes (Fl.NZ vol IV). Naturalised in northern areas (Tauranga north)

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Not a lot of detail in proposal and I have never seen this species in the wild. In proposal reported as invading pastures and becoming a danger to livestock (plant is toxic) and could harm natural ecosystem by forming dense undergrowth.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject (14)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Limited information, mostly gets the score based on toxicity and the fact that it is reported as a weed.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Listed in Gaddum. Other members of the genus also sold.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level 4

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only
NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Current distribution patchy but widespread. Uncertain

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Uncertain, Environment Bay of Plenty is undertaking control trials.

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document
No

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Research organism for ARC and is one of the "Cestrum spp." listed in the Environment BOP strategy.

Any known impact on human health?
C. nocturnum is known to be highly toxic, and if any plant parts are eaten raw in large quantities it can be lethal. Regularly causes death of livestock, including goats, sheep and cattle. It is believed to be as toxic to humans. In addition, its fragrance is said to cause nose/throat irritation, headache nausea and dizziness.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Currently sold and being controlled by councils in some areas.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Uncertain about the level of impact from this species.

Include in NPPA?
No - needs more information. Will be considered for next review round of Accord

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Cestrums were considered potentially serious back in the days when plants were only noxious if they were likely to affect farmed livestock.

Notes from TAG meeting
Need more info from proposer

Cestrum parqui
Common names
Green cestrum

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, but not much naturalised

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, Kaitaia, Waioka Gorge, Auckland

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Yes, poisonous to livestock. Weedy in Texas and Queensland. Frost tolerant, but prefers warm, wet conditions.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
DOC weed score 28, P&C's wra score 21 'reject'. Pacific Islands score 11.

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Probably reasonable.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
–

NZ Nursery register 2004/05 genus level only
–

NZ Nursery Register 1997/98 genus level only
–

NZ Nursery register 1991/92 genus level only
–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Vol IV says 'not often cultivated now'.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Very limited distribution now, but could probably become widely distributed in warmer districts. Its frost tolerance suggests it could survive in cooler places.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Hard to control because it regrows after physical damage. Individual plants can be killed with herbicides, but this is labour intensive.

National eradication i.e. DOC, MAF
RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
C. parqui is also known to be highly toxic, and it is often lethal to horses, and livestock, including goats, sheep, cattle, pigs and poultry. It is also known to be as toxic to humans, causing also dermal poisoning. All parts of the plant are poisonous though the small black flesh fruit are considered most toxic. Ingestion of the plant by humans can cause fever, loss of appetite, intense abdominal pain and blood-stained scouring.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Poisonous to stock, flowers (in daytime) and crushed foliage stink. Potential to become more widespread. Currently of very limited distribution. Suckers. Spread by birds.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of those can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Not much of it, mainly problem to farmers, may not be very invasive.

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Chrysanthemoides monilifera

Common names
Boneseed

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, widespread in coastal areas as far south as Dunedin.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a
Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Yes. Can replace native vegetation and suppress new native seedlings.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
DOC weed score 28, Mul’s wra score 16 'reject'. Pacific Islands score 11.

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Good

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
–

NZ Nursery register 2004/05 genus level only
–

NZ Nursery Register 1997/98 genus level only
–

NZ Nursery register 1991/92 genus level only
–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Promoted on a few internet sites

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Could probably become much more prevalent

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Relatively easy, by treating individual bushes, or by spraying seedlings or larger bushes with herbicide. But labour intensive.

National eradication i.e. DOC, MAF
–

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

National eradication i.e. DOC, MAF
–

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

DoC weed-led

Any known impact on human health?
No known harm.
**Reasons for inclusion in NPPA.** A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

*Species of limited distribution which could become more widespread. Can be regarded as attractive and could be distributed for that reason. Better to include it than have it sold again.*

**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

*Not terribly damaging to environment, grows where other things aren't growing.*

**Include in NPPA?**  
*YES - medium priority*

**If answering D or E, please note the reason for the uncertainty here. Any other comments here.**  
*Nil*

**Notes from TAG meeting**  
*Nil*

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**Clematis flammula**

**Common names**
*Clematis, plume clematis, fragrant clematis, virgin's bower, fragrant virgin's bower, sweet-scented virgin's bower*

**Synonyms**
*Nil*

**Is the plant species present in NZ?** (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

*yes*

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

*yes. North (North Auckland; Wellington) and South (Nelson/Canterbury) Islands. Flora IV; Wellington herbarium record and Bioweb.*

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

*n/a*

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

*Yes. Unsure to what extent.*

**WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.**  
*reject 22*

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

*should be rejected. Probably never will be as invasive as C. vitalba but nevertheless does score highly and should be rejected.*

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report.

*Sold in nurseries.*

**Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level**

4
NZ Nursery register 2004/05 genus level only
98

NZ Nursery Register 1997/98 genus level only
101

NZ Nursery register 1991/92 genus level only
69

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Attractive cultivated plant.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
First collected in 1960’s and has become more common since then. Very likely to become much more widespread and abundant.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Probably similar to C. vitalba.

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
—

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
All plants in this genus are acrid and irritant, and their ingestion, especially in large amounts, are expected to cause serious effects to major body organs such as the liver, heart or kidneys. All parts of Clematis spp. are said to be toxic not only to humans but also to livestock and other animals. These plants are irritant when touched and may cause dermatitis in some people.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Potentially could become very widespread and common. In the early stages on naturalisation and probably should be on NPPA before it becomes a more serious problem.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Not particularly prevalent in native ecosystems yet as most records are from among populations of naturalised plants and cultivated plants (e.g. hedge rows).

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil
Notes from TAG meeting
Nil

**Clematis vitalba**

**Common names**
*Old man's beard*

**Synonyms**
*Nil*

**Is the plant species present in NZ?** *(if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)*
*yes*

**Has the plant species formed self-sustaining populations in New Zealand?** *(Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).*
*yes. North and South Islands. Flora IV.*

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** *(i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)*
*n/a*

**Does the plant have the potential to cause adverse impacts?** *(Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)*
*Yes. Significant conservation impact by smothering native plants in natural ecosystems and also smothering other exotic plants in gardens and naturalised habitats. Very aggressive growth and produces copious amounts of seed.*

**WRA result and score, for example "reject (18)".** *(Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)*
*reject 22*

**Comments on WRA score** *(Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)*
*should be rejected.*

**Objective evidence it has been or is deliberately distributed in NZ.** *(Discussed in section 3.2.1 of the evaluation criteria report.)*
*Genus sold in NZ. Listed in nursery catalogues in the past.*

**Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level**

- NZ Nursery register 2004/05 genus level only
  98

- NZ Nursery Register 1997/98 genus level only
  101

- NZ Nursery register 1991/92 genus level only
  69

**Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ** *(i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant could be mistaken for other species of Clematis and unintentionally grown.)*

**Known vs potential distribution in NZ (abundance in New Zealand)** *(Discussed in section 3.2.2 of the evaluation criteria report.)*
*Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats? Already widespread and has the potential to continue to expand its range and abundance.*
Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

*Can be controlled by chemicals and physical removal of plants.*

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

—

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

DoC weed-led

Any known impact on human health?

*All plants in this genus are acrid and irritant, and their ingestion, especially in large amounts, are expected to cause serious effects to major body organs such as the liver, heart or kidneys. All parts of Clematis spp. are said to be toxic not only to humans but also to livestock and other animals. These plants are irritant when touched and may cause dermatitis in some people.*

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

An aggressive and difficult to control plant that can cause considerable damage.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None.

Include in NPPA?

YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil

---

**Cobaea scandens**

Common names

*Cathedral bells*

Synonyms

Nil

Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/evidence).

yes, spreading vegetatively and by seed. *(Fl of NZ vol IV, DOC bioweb database).*
If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals. 
Smothering vine, smothers forest canopy and understorey.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject (12)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. no listings, has been banned from sale since national surveillance list (1998?). search on Google showed no websites from NZ refering to this species as a desirable plant

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
--

NZ Nursery register 2004/05 genus level only
--

NZ Nursery Register 1997/98 genus level only
--

NZ Nursery register 1991/92 genus level only
--

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Listed in NZ published and distributed gardening books such as Nicholls (1995) "should not be viewed as a potential weeds as it is very easily killed by frost". Bryant 1994

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Currently naturalised in northern NZ as well as coastal Wellington, Nelson/ Tasman and SI West Coast. Likely to be confined to lowland areas but established in Upper Takaka so not confined to frost-free areas. A long way from reaching all potential habitats

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Not reported to be as resistant to herbicides as some other vines, but reported to come back vigourously from seedbank. Fragments easily and the fragments grow readily, so physical control is of little help.

National eradication i.e. DOC, MAF
--

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No
Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
7 RPMSs, 5 of which are eradication or control to low levels. DoC weed-led on SI West Coast

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Invasive but attractive plant previously promoted and cultivated (ie prior to ban on sale), subject to significant control programmes by govt agencies. Likely to be sold again if allowed.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Can't see any reason for exclusion. Species is already banned so shouldn't have any commercial impact.

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

**Cortaderia jubata**

Common names
Purple pampas grass

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, widespread in NI and in coastal areas as far south as Dunedin.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Yes, forms huge clumps largely unpalatable to livestock.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
**DOC weed score 27, MB's wra score 29 'reject.**

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
**Good**
Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant Planted on farms as shelter belt or as ‘emergency’ fodder for cattle.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.) Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats? Could probably become even more prevalent

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?) Fairly easy with herbicides, but can be labour intensive.

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available. Nil

Any known impact on human health?
Leaves supposedly irritant. Leaf edges also cause mechanical injury, as they are somewhat sharp and can cause serious cuts.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report) Aggressive invader, can be hard to control, could invade new areas, displaces other species.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group. Attractive, useful as shelter, occurs in very many places. Declaring it now won’t help.

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here. Nil
Notes from TAG meeting

*Quite widespread, wind dispersed.*

---

**Cortaderia selloana**

**Common names**

*Pampas grass*

**Synonyms**

*Nil*

**Is the plant species present in NZ?** (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

*yes*

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

*Yes, widespread in NI and in north and west SI*

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

*n/a*

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

*yes, forms huge clumps largely unpalatable to livestock.*

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

*DOC weed score 31, DC's score 31 'reject.*

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

*Good*

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report.

*Nil*

**Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level**

*–*

**NZ Nursery register 2004/05 genus level only**

*–*

**NZ Nursery Register 1997/98 genus level only**

*–*

**NZ Nursery register 1991/92 genus level only**

*–*

**Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ** (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant planted on farms as shelter belt or as 'emergency' fodder for cattle.

**Known vs potential distribution in NZ (abundance in New Zealand)** (Discussed in section 3.2.2 of the evaluation criteria report.)

*Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats? Could probably become even more prevalent*
Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Fairly easy with herbicides, but can be labour intensive.

National eradication i.e. DOC, MAF
--

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
Leaves said be irritant, and having a high harm potential to humans. Leaf edges also cause mechanical injury, as they are somewhat sharp and can cause serious cuts.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Aggressive invader, can be hard to control, could invade new areas, displaces other species.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Attractive, useful as shelter, occurs in very many places. Declaring it now won’t help.

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Cotoneaster simonsii

Common names
Khasia berry

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence). Yes, widespread in central North Island and South Island, particularly foothills country.
If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Forms dense thickets that compete with native vegetation. Capable of growing in quite harsh environments with relatively few other woody weeds.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject (14)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Older bushes commonly seen planted in old homesteads, school grounds and the like.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only
68

NZ Nursery Register 1997/98 genus level only
64

NZ Nursery register 1991/92 genus level only
69

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Not widely sold or distributed in NAZI. now; out of fashion.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Wide environmental tolerance indicates potential for wide distribution, but as it is spread mainly by birds its spread is rather slow.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Can be killed with a range of brush killer herbicides or cut and paste.

National eradication i.e. DOC, MAF

Yes

RPMS YES/NO refer to master document

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

DoC weed-led
Any known impact on human health?
No known harm, but information on this genus is suggested to be incomplete. Nonetheless, it seems that ingestions of small amounts would not be expected to cause problems.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Although not widely sold it would be useful to prevent further loci establishing.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Not widely sold, and now spread mostly by other means, but otherwise plenty of substitutes

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Cotyledon orbiculata

Common names
African pig’s ear, stonecrop

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p570, Vol IV

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Fully naturalised. N.: Anawhata (Auckland), Whakatane (Bay of Plenty), Paekakariki and around Wellington Harbour; S.: Marlborough coast, N. Canterbury coast, Port Hills and other localities on Banks Peninsula, Otago Peninsula.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Health: Many members (if not all) of the Crassulaceae contain cardiac glycosides. Tylecodon, Cotyledon, Adromischus and Kalanchoe have particularly high concentrations. Bowiea volubilis is another. In the case of the Crassulaceae, the pharmacologically active part of the molecules are known as bufadienolides and in the Crassulaceae can have an accumulative effect (i.e. if eaten once may not be fatal, but after several times will be fatal). Cotyledon orbiculata,
, Cotyledon, , , "Dispersal: Vegetative, Wind. Life Form: Succulent herb, subshrub or shrub. Environment: Serious threat to one or more vegetation formations - displacing natives and altering successional trajectories . The leaves were used to treat corns and fever blisters (1). The warmed leaf juice is used as drops for earache. It may also be applied in the form of a hot poultice to treat boils, earache, inflammation or warts.
Health: Internal use is dangerous and potentially lethal, and the toxicity is affected by the moisture content of the leaves.
WRA result and score, for example "reject (18)". NOTE: "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Reject (11)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

10

NZ Nursery register 2004/05 genus level only

16

NZ Nursery Register 1997/98 genus level only

--

NZ Nursery register 1991/92 genus level only

--

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ [i.e. garage sale, overseas, personal observations]. Include comments on appeal as a cultivated plant

10 suppliers in RHS Plant Finder. 4 x C.o + 4 x C.o var oblonga + 2 x C.o var orbiculata. Cotyledon orbiculata (Haw.) is widespread in south of Nambia and South- Africa, specially on the hills and mountains. Seen here near Helmeringhausen in Namibia on October 2, 1996. It has varied forms of leaves and as you can see it flowers in October. Indigenous evergreen shrub and a wonderful rock garden plant in warm regions. It likes very dry and hot places.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Widely distributed from Otago to Auckland - 2 map refs plotted. Coastal slopes and beaches, often on steep banks, rocky outcrops, cliff faces and bare ledges, sometimes in low scrub and dry depleted grassland, sometimes forming large populations. Potential unknown. Was planted around baches on the Nelson Boulder Bank and has spread significantly in that very harsh habitat (no soil, just stones and lichen).

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Control methods unknown to GWB.

National eradication i.e. DOC, MAF

--

RPMS YES/NO refer to master document

--

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

There have been at least 4 bufadienolides isolated from Cotyledon orbiculata, two of which proved to have a mildly cumulative effect in an animal organism. It seems that there has been no recorded incidents of this plant causing harm
to humans but there have been cases in California where sheep have died when fed Cotyledon orbiculata, and all Cotyledons should be considered poisonous. Ingestion is therefore dangerous and potentially lethal, and the toxicity is affected by the moisture content of the leaves. In South Africa, the disease caused by eating these plants, called cotyledonosis, has poisoned sheep and goats but rarely other animals. Ranchers in South Africa found that the meat of animals killed by cotyledonosis also remains toxic.

**Reasons for inclusion in NPPA.** A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

*WRA = 11 (Reject).* Highly ornamental. Currently being sold through the NZ trade. Limited current distribution in NZ. Control measured not known to GWB. Proposal for inclusion submitted by ARC.

**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

*None*

**Include in NPPA?**

YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

*Nil*

**Notes from TAG meeting**

*Nil*

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**Crassula multicava**

**Common names**

*pitted crassula, fairy crassula*

**Synonyms**

*Nil*

**Is the plant species present in NZ?** (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

*Yes*

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

*Yes. coastal areas of North and South Islands (Flora IV).*

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

*n/a*

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

First collected in 1959 and therefore is almost certainly expanding its range and abundance in NZ.

*Reject 15*

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

*Reject 15*

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

*Nil*

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report.

*Genus sold in NZ.*
Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

An attractive plant that would be sold for its horticultural merits.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Could become much more aggressive and common in NZ.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

No known harm

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Could become a bad weed of coastal cliff habitats throughout NZ.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None.

Include in NPPA?

YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil
**Crocosmia x crocosmiiflora**

**Common names**  
Montbretia, Crocosmia

**Synonyms**  
Nil

Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)  
Yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).  
Yes, throughout NZ, esp NI and W Coast.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)  
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.  
Strong ground-covering colonies that probably prevent establishment of natives

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.  
DOC weed score 21, my wra score 22 'reject.'

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)  
Good

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.  
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level  
—

NZ Nursery register 2004/05 genus level only  
—

NZ Nursery Register 1997/98 genus level only  
—

NZ Nursery register 1991/92 genus level only  
—

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant  
Vol 3 says once popular in gardens and cemeteries. Commonly promoted on overseas websites.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)  
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?  
Probably spreading along roadsides

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)  
—
**Cyathea cooperii**

**Common names**

*Lacy tree fern, Australian tree fern*

**Synonyms**

*Sphaeropteris cooperi*

**Is the plant species present in NZ?** (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

*yes*

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

*yes (Heenan et al 1998). Spreading from spores*

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** *(i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)*

*n/a*
Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Displacing native ferns in Hawaii and may do so here. Possibly hybridisation with native ferns (ARC proposal). Invades caopy gaps in upland forest in Mauritius

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject (10)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.


Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

4

NZ Nursery register 2004/05 genus level only

--

NZ Nursery Register 1997/98 genus level only

--

NZ Nursery register 1991/92 genus level only

32

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Currently mostly in Northland and Auckland, uncertain how far south it would grow (DOC suggests may invade NI and norther South Island in sheltered areas). In Australia ranges from NE Queensland to SE New South Wales.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Uncertain, but easily confused with native Cyathea species so a cryptic weed - ie infestations are difficult to detect.

National eradication i.e. DOC, MAF

--

RPMS YES/NO refer to master document

--

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

No known harm
Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Known invasive overseas (Hawaii, Mauritius, South Africa), just beginning to naturalise here and considered likely to have similar impacts. Deliberate sale is probably the main means of spread at this stage because it is newly naturalised. Native alternatives are readily available.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Currently sold so likely to be objections from sellers (although related native species are readily available). No known current control on this species so slightly lower priority. Uncertainty over the area where it is likely to establish in the wild (just Auckland and north or further south).

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Cytisus scoparius

Common names
Wild broom

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, widespread throughout

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Well established history as an agricultural and environmental weed

WRA result and score, for example "reject (18)". NOTE - “reject” means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject (23)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Reflects its true weedy nature

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Originally sold as a stock food, now colored cultivars only are seen for sale. Most of these breach the local regulations though
Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

49

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Widely distributed, but still large areas, particularly in the montane zone, where it could spread.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Well controlled by herbicides but resprouts from persistent seed bank.

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

DOC site-led in many areas

Any known impact on human health?

Foliage and seeds are described as toxic to humans, as they contain the alkaloid Cytisine among others. The alkaloid portions cause depression of the nervous system, and the glycoside causes a diuretic effect. Symptoms include incoordination and occasional excitement. Ingestion of large amounts of this shrub can cause coma and death. Nonetheless, poisoning from this shrub is usually of a mild type. It seems that horses are most susceptible to poisoning by Scotch broom

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

So widely controlled in strategies that control needs to kept on sale

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None

Include in NPPA?

YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Dipogon lignosus

Common names
Mile-a-minute

Synonyms
Nil

Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
YES

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/evidence).
YES: Flora IV. Nth Is - scattered localities from vicinity of Auckland City northward, Gisborne City, Bulls, PNorth, Wellington City and coastal SW Wellington Province (A vigorous climber scrambling over scrub and wasteland). UO Declaration (DoC): established in the north of NZ, mostly in disturbed sites - particularly around Kaitaia, Whangarei, and Auckland. 39 voucher specimens of naturalised material in Auckland Herbarium - oldest 1950 (AK 36178).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals).
YES - CONSERVATION VALUES: a vigorous scrambling vine that smothers ground cover species, halts regeneration of trees and shrubs, and smothers and kills taller vegetation to mid-canopy level. N-fixer so alters soil conditions where it establishes, encouraging the succession of high fertility plants to the detriment of native species that prefer low-fertility soils. Habitats at risk include coastal forest, dunelands, secondary and low forest, and lava fields (e.g. on Rangitoto Island). Wide environmental tolerance (e.g. drought, damp, wind, salt and poor soils) - in OZ grows in Tasmania so would be expected to survive in NZ in areas with similar climate.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (21) NB Not sure about palatability or toxicity of species, or self compatibility.

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Good information available on ISSG website. Impacts overseas, and for parts of NZ well documented. Bird dispersal via use of stems in nest building.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Was sold in the garden industry

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
4

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

—
NZ Nursery register 1991/92 genus level only
32

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
NZ: Garden dumping - e.g. Waitakere Ranges

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Naturalised in Northland, Auckland, BoP, Hawkes Bay, Taranaki, Manawatu, Wellington and Nelson/Marlborough
Regions - including on a number of northern inshore/offshore islands. Potential to become more abundant in these regions.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Physical Control (Grub out young plants, slash smothering vines and grub out regrowth); Chemical Control (Spray whole infestation or Cut and treat stumps with herbicide - a number of which are suitable, e.g. Banvine, Escort, Tordon). Biological Control: None available.

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
—

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
NZ: Site-led control by DoC in the Auckland area and on Rangitoto Island. Was a National Surveillance Plant Pest and included on the current NPPA list. Overseas: Recognised as an invasive species in a number of countries, e.g. parts of Australia including NSW, Victoria, Tasmania http://www.environment.sa.gov.au/coasts/pdfs/no34.pdf; Sth Africa; and US in California. Also naturalised in Chile, Argentina, and Uruguay. ISSG Database indicates that birds use the vine to build nests - creating another avenue of spread.

Any known impact on human health?
No known harm

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
WRA score high Reject (21). Well recognised as an environmental weed in NZ. Should remain on the NPPA.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Not currently sold so no nursery industry implications.

Notes from TAG meeting
Nil
**Drosera capensis**

**Common names**
Cape sundew

**Synonyms**
Nil

**Is the plant species present in NZ?** (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, sparingly naturalised (first record in 2004), common in specialist collections (carnivorous plant).

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, damp or dry clay banks at two Auckland sites

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Could pose a serious threat to native turf species in restiad bogs.

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
10 (Reject)

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report. Widespread amongst carnivorous plant enthusiasts, occasionally offered for sale. Considered weedy, spreading by seed amongst other plants.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
1

NZ Nursery register 2004/05 genus level only
4

NZ Nursery Register 1997/98 genus level only
4

NZ Nursery register 1991/92 genus level only
1

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

**Known vs potential distribution in NZ (abundance in New Zealand)** (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Few known occurrences. Potentially a problem in wetlands with low stature vegetation.

**Ease of control of the plant as a species** (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Control with glyphosate and diquat ineffective, seed bank characteristics unknown.
National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

DoC weed-led control attempted (Auckland)

Any known impact on human health?
No information on this species. However, at least three species in this genus are said to be toxic, as leaves (especially crushed leaves) are vesicant and may lead to the formation of blisters in some people.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Potential to displace small stature, endangered flora (e.g. Utricularia delicatula) in low nutrient wetland habitats.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Popular, easily cultivated, carnivorous plant

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Possibly need to experimentally determine ability of D. capensis to invade restiad bog vegetation in New Zealand. Banning propagation, sale and distribution may educate carnivorous plant enthusiasts about the risks of planting into natural areas. Somewhat difficult situation as naturalisation of this species is considered to have resulted from deliberate attempts to establish the plant in the wild. NZ has a number of native species of Drosera. Would consider moderate priority reasonable

Notes from TAG meeting
Sufficient information available to include on Accord, but it would be useful to gather further information for the future

Dryopteris filix-mas

Common names
male fern

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

yes (Fl NZ vol IV). Spreads by spores.
If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

(ARC proposal) outcompetes and replaces native fern and groundcover, affects regeneration, succession

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject (14)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only). Score seems quite high given level of information

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Other species in genus are sold (ARC proposal). Available online http://www.fronds.co.nz/product.html?p=74

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

- NZ Nursery register 2004/05 genus level only
  11
- NZ Nursery Register 1997/98 genus level only
  7
- NZ Nursery register 1991/92 genus level only
  -

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant reportedly usedi alternative medicine http://www.anthroposophy.org.nz/weleda/info/homework/Digestion&Liver.htm, http://www.caprine.co.nz/wa.asp?idWebPage=3278&idDetails=152

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.) Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats? Widespread and well established in both North and South Islands although not necessarily in all areas where it could establish.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Uncertain, not particularly conspicuous so may be cryptic. Tolerant of physical damage.

National eradication i.e. DOC, MAF

- RPMS YES/NO refer to master document

- NPPA YES/NO
  No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

DoC weed-led for Chatham Islands
Any known impact on human health?
It is described as being poisonous to livestock, and there is evidence in the medical literature for poisoning in cattle (Macleod & Greig 1978). It is used as a herbal medicine against worms, but extracts from this plant are said to cause liver damage and blindness in overdose.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Currently sold, this species is spreading and invading native forest. Native alternatives are readily available for ornamental but not necessarily alternative medicine uses.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Currently sold so likely to be objections from sellers. Uncertain how significant a weed this is, and already well established - not sure how significant human spread is compared to natural spread.

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

**Eccremocarpus scaber**

Common names
Chilean glory creeper, Chilean glory vine, glory vine, Chilean glory flower

Synonyms
Nil

Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
yes. North and South islands, local and scattered. Flora IV. Especially common in south Canterbury.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Yes, especially in lowland/coastal sites. Mainly recorded from near cultivation and therefore often established among other naturalised and cultivated plants.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject 20

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only) should be rejected as seems to becoming more common.
Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Sold in NZ. I have seen it in nurseries.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Attractive cultivated plant.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Lowland and coastal NZ.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

No known harm

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

First recorded as naturalised in 1940; could become more common and abundant in the future.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Forming numerous large populations in some areas, not particularly common in native ecosystems.

Include in NPPA?

YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil
**Egeria densa**

**Common names**
*Egeria, Oxygen weed, Brazilian elodea*

**Synonyms**
*Anacharis densa, Elodea densa, Philotria densa*

**Is the plant species present in NZ?** (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, widespread throughout North Island, abundant in Waikato and Manawatu catchments. South Island sites in vicinity of Blenheim and scattered ponds in Canterbury.

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, submerged species invasive throughout New Zealand range

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Extremely invasive, disrupts hydro-electric power generation, drainage, irrigation and recreational activities. Displaces other vegetation from much of submerged range (to ~6 m).

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
18 (23 P&C) (Reject) AWRAM (64)

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report. *Was sold in New Zealand until 1982 (Noxious Plant Act 1978). Possibly still spread by hobbyists.*

**Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level**
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**NZ Nursery register 2004/05 genus level only**
--

**NZ Nursery Register 1997/98 genus level only**
--

**NZ Nursery register 1991/92 genus level only**
--

**Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ** (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
*Commonly referred to in international aquarium literature as an oxygenator plant for ponds/aquaria.*
**Known vs potential distribution in NZ (abundance in New Zealand)** (Discussed in section 3.2.2 of the evaluation criteria report.)

Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

*Widespread in many North Island areas, absent from most of South Island. Could be problematic in most nutrient-rich water bodies in New Zealand.*

**Ease of control of the plant as a species** (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

*Difficult to control, both through lack of effective methods and its aquatic habitat.*

**National eradication i.e. DOC, MAF**

—

**RPMS YES/NO** refer to master document

Yes

**NPPA YES/NO**

Yes

**Notifiable organism**

No

**Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.**

*CCC/Ecan weed-led - Avon R.*

**Any known impact on human health?**

*No known harm*

**Reasons for inclusion in NPPA.** A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

*Only spread by human activities, either deliberate or accidental (e.g. contaminated nets, boats and drainage machinery). NPPA inclusion reduces long-distance spread.*

**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

*None, less invasive submerged plants available*

**Include in NPPA?**

*YES - high priority*

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

*Nil*

**Notes from TAG meeting**

*Nil*

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**Ehrharta villosa**

**Common names**

*Pyp grass*

**Synonyms**

*Nil*

**Is the plant species present in NZ?** (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

*Yes, p43, Vol V*
Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

Fully naturalised. N.: Wanganui (Turakina Beach); Hawke’s Bay (Taikura near Blackhead Point).

If no to previous question, what potential does the species have to establish self-sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Originally planted at Turakina Beach in the early 1960s as a sand dune binder. A note on AK 216398 A. E. Esler Turakina Beach, 1969, indicated that it was showing a tendency to increase. Harrington (1993, nzpps) reports it is smothering dune communities at Turakina beach. Environmental: Replaces mossy native species e.g pingao and spinifex in sand dune habitats. Economic: Not known. Social: Unknown. Cultural: Unknown. Health: Unknown.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Reject (9)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Nil

Gaddum “The Plant Finder” (trade version 2001) - listing to species and cultivar level

—

NZ Nursery register 2004/05 genus level only

—

NZ Nursery Register 1997/98 genus level only

—

NZ Nursery register 1991/92 genus level only

—

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

No suppliers in RHS Plant Finder

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?


Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

haloxyfop (gallant) provides good control (Harrington 1998). Glyphosate also OK.

National eradication i.e. DOC, MAF

yes

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

DoC weed-led

Any known impact on human health?

No known harm

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

WRA = 9 (Reject). Whilst it has no ornamental value and so very unlikely to be propagated and distributed for this purpose, its historical use for dune stabilisation indicates a potential future use. It has apparently has not spread since 1969. Inclusion will support DOC’s weed-led approach to controlling (if not eradicating) this species.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Easily controlled with herbicides.

Include in NPPA?

YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil

Eichhornia crassipes

Common names

*Water hyacinth*

Synonyms

Nil

Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

Yes, formerly widespread in northern North Island, with scattered sites south to Wellington, also Tasman District in South Island

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

Yes, invasive free-floating species throughout New Zealand range

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Extremely invasive. In New Zealand this plant has completely displaced other vegetation, impacting on water quality, drainage and recreational activities.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

17 (16 DC) (Reject) AWRAM (67)
Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Despite being banned from sale and distribution since 1979 this plant is still apparently distributed by hobbyists (usually for ornamental fish breeding) with several new sites reported annually.

Gaddum “The Plant Finder” (trade version 2001) - listing to species and cultivar level

—

NZ Nursery register 2004/05 genus level only

—

NZ Nursery Register 1997/98 genus level only

—

NZ Nursery register 1991/92 genus level only

—

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Commonly referred to in international aquarium/pond plant literature as a showy ornamental pond plant and ideal spawning plant (masses of fine roots provide shelter from predators)

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Most sites now eradicated. Could be problematic in most nutrient-rich water bodies in northern North Island and warmer parts of the South Island.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Relatively easy to kill plants, but seeds long-lived (up to 15 years) and some methods not always acceptable in aquatic situations.

National eradication i.e. DOC, MAF

yes

RPMS YES/NO refer to master document

—

NPPA YES/NO

Yes

Notifiable organism

notifiable

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

No known harm

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Mostly if not exclusively spread by deliberate human introduction. Long running national eradication programme.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Eomecon chionantha

Common names
Snow poppy, poppy of the dawn, Chinese bloodrot

Synonyms
Eomecon chionanthum

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
yes (Heenan et al 2002). Spread by rhizomes, especially from garden waste dumping and possibly by seed.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals. Described in proposal as "extremely invasive groundcover" although I haven't seen the species in the wild and am uncertain how it compares to other invasive groundcovers such as tradescantia. Current sites are spreading into native bush (Heenan et al 2002). Impacts very uncertain as is typical of newly naturalised species. Following website promoting it as a garden plant in Britain notes invasive tendencies, http://www.worldplants.com/eomecon.htm but not reported as a weed anywhere else in the world (Randall 2002)

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject (8)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
not a lot of information on this species

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Listed in Gaddum and the proposal quotes it as present in NZ Nursery Register 2003 (monospecific genus).

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level 6

NZ Nursery register 2004/05 genus level only
—

NZ Nursery Register 1997/98 genus level only
—
NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Listed in NZ published and distributed books such as Redgrove 1995

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Wild distribution is currently very restricted, but cultivated throughout NZ and seems likely to naturalise more widely.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Reported in proposal as so far proving difficult to control.

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Listed as a “regional surveillance pest” on Bay of Plenty (proposer of this species and the area where this has naturalised)

Any known impact on human health?
No known harm

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Newly naturalised (1st collection in 1997) species showing indications that it is likely to become a problem in future. Although probably quite well distributed in cultivation (a number of nurseries sell it) not yet widely established in the wild. Human spread (either deliberate sale and propagation or garden waste dumping) main way that this species is likely to reach new areas.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Uncertainty over impacts and how invasive this species is (typical of newly naturalised species). Likely to be some objections from industry as this species is sold.

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

I'm somewhat uncertain about this and if anyone has more information on this species this would be very useful.

Notes from TAG meeting
Sufficient information available to include on Accord, but it would be useful to gather further information for the future
Equisetum arvense

Common names
Field horsetail

Synonyms
Nil

Is the plant species present in NZ?  (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand?  (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, especially in south NI and Buller

If no to previous question, what potential does the species have to establish self sustaining populations in NZ?  (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts?  (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)
Yes, forms sometimes dense colonies on river banks, obliterating other vegetation. Toxic to livestock, esp horsrs.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
DOC weed score 21, P & C wra score 19 'reject', PAW wra score 8 'reject', my score 24 'reject'.

Comments on WRA score  (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
OK

Objective evidence it has been or is deliberately distributed in NZ.  (Discussed in section 3.2.1 of the evaluation criteria report.)
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
–

NZ Nursery register 2004/05 genus level only
–

NZ Nursery Register 1997/98 genus level only
–

NZ Nursery register 1991/92 genus level only
–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ  (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Have seen it in herb gardens in Rotorua. Saw it discussed in an early Maggie’s Garden Show in a Taihape garden, growing in shingle that came from the Rangitikei river.

Known vs potential distribution in NZ (abundance in New Zealand)  (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?:  Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Could become more widely distributed on river and stream banks and in wet paddocks and natural areas

Ease of control of the plant as a species  (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Hard as hell, selective herbicides, asphalt and concrete don't stop it.
National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
Equisetum spp. are rich in thiaminase, an enzyme that destroys thiamine, an essential amino acid. Only monogastric animals like horses are poisoned, and the animals become increasingly unthrifty and have difficulty breathing. These plants also contain nicotin (an alkaloid), so the entire plant is toxic (the roots and stem base are most toxic), also to humans if consumed in large quantities.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Limited distribution, hard or impossible to kill, valuable to and distributed by herbalists. Considered weedy in BC, noxious in all Australian states, minor weed of crops in many NH countries.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Grown and used by herbalists as a remedy and a pot scourer, can be used as an indicator of gold in the soil, not yet a problem in NZ, may never become one.

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

**Equisetum hyemale**

Common names
Rough horsetail

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Localized in Canterbury at least. Data from other regions lacking.
If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Potential to form tall dense masses in wetland and damp open places

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject (22)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Reflects its weeding in aquatic habitats

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Very localised, but given the abundance of its congener, it would probably have widespread potential in wetlands

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

All Equisetum spp. are difficult to control with chemicals and almost impossible to remove manually

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?
Equisetum spp. are rich in thiaminase, an enzyme that destroys thiamine, an essential amino acid. Only monogastric animals like horses are poisoned, and the animals become increasingly unthrifty and have difficulty breathing. These plants also contain nicotin (an alkaloid), so the entire plant is toxic (the roots and stem base are most toxic), also to humans if consumed in large quantities.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report) Probably spread almost entirely by humans and considering its potential impact there are very strong reasons for including it.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None other than its potential popularity

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Equisetum spp. (all)

Common names
Horsetail

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, one species

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, one sp., other spp. have potential to grow here, as other spp cosmopolitan in NH.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Yes, several of the 25 species are described overseas as 'invasive' in certain habitats.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Hard to do for all species, but let's assume it's similar to E. arvense.

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
OK

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil
Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

- NZ Nursery register 2004/05 genus level only
- NZ Nursery Register 1997/98 genus level only
- NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Three of more of the species have the potential to establish and thrive in NZ.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
As for E. arvense

National eradication i.e. DOC, MAF
- RPMS YES/NO refer to master document
- NPPA YES/NO
  No

Notifiable organism
  No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
  Nil

Any known impact on human health?
Equisetum spp. are rich in thiaminase, an enzyme that destroys thiamine, an essential amino acid. Only monogastric animals like horses are poisoned, and the animals become increasingly unthrifty and have difficulty breathing. These plants also contain niconit (an alkaloid), so the entire plant is toxic (the roots and stem base are most toxic), also to humans if consumed in large quantities.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
As for E. arvense. Other species equally ahrd to control and have potential to be equally invasive.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Only one species here so far. Not terribly serious as a weed. Attractive to grow as a curiosity and useful in some garden environments and in floral arrangements.

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Three species reported in NZ, 2 currently NPPA and UO, 3rd reported as eradicated. Universities have held live plants in the past (I remember being shown them when I was a student) so there may be species in cultivation here that have not been reported.

Notes from TAG meeting
Limited species so include the 3 species in NZ

**Eragrostis curvula**

**Common names**
_African love grass_

**Synonyms**
_Nil_

**Is the plant species present in NZ?**
(if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p528, Vol V

**Has the plant species formed self-sustaining populations in New Zealand?**
(Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Fully naturalised. _N._: scattered and local; _S._: Canterbury (Christchurch), North Otago (Kurow), Central Otago (Ophir, Wanaka-Cromwell Rd, Earnscleugh); Three Kings Is.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

**Does the plant have the potential to cause adverse impacts?**
(Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Some NZ records are of escapes from experimental plots. This plant can invade degraded pastures and disturbed native grasslands. It is naturalised in a large number of locations on the Australian mainland and is found in all States and Territories except for the Northern Territory and the Australian Capital Territory.

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (18)

**Comments on WRA score**
(Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

**Objective evidence it has been or is deliberately distributed in NZ.**
Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
—

NZ Nursery register 2004/05 genus level only
—

NZ Nursery Register 1997/98 genus level only
—

NZ Nursery register 1991/92 genus level only
—
Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant.

35 suppliers of curvula plus 17 suppliers of curvula "Totnes Burgundy" in RHS Plant Finder (although 151 suppliers of other B species. J. A DUKE (1983) at Purdue Unit, considered it a warm-season bunchgrass with good growth in spring and autumn, used fresh and as hay, and recommended for leys with alfalfa in drier farming areas. In South Africa and adjacent territories, it is valued for ease of establishment, reasonable yields, and palatability. However, in countries where it has been adopted, it is often regarded as inferior to the best grazing grasses and has not spread much beyond experimental areas. It is considered excellent for protecting terraces and for grassing water channels; and is valuable for erosion control. In Lesotho, it is used to make baskets, brooms, hats, ropes, and candles, used in funeral ritual, as a charm, and eaten as a grain (Duke and Wain, 1981).

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.) Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats? Widely distributed. 2 map refs in both SI and NI plotted. Roadsides, in sandy soil, or on banks, depleted tussock grassland, stony flats and waste land. Potential unknown.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?) Tetrapion (2.25 and 3.00 kg/ha a.i.) was the most effective herbicide in killing E. curvula and promoting P. clandestinum in experiments 1 and 2, but, in experiment 3, glyphosate and 2,2-DPA were equally effective in killing E. curvula at 3 (glyphosate) and 2 (2,2-DPA) of the 4 application times.

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
It is said to be non-toxic, but the sap of Eragrostis spp. can be irritant to human skin, and may cause contact dermatitis.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
WRA=18 (Reject). High ornamental value judging from presence in the European nursery trade. While there is no proposal for its inclusion, this species has high potential as a future ornamental grass for sale and distribution in NZ which could greatly expand its presently limited distribution.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil
**Erica lusitanica**

**Common names**  
*Spanish heath*

**Synonyms**  
*Nil*

**Is the plant species present in NZ?**  
(if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)  
Yes, p612, Vol V

**Has the plant species formed self-sustaining populations in New Zealand?**  
(Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).  
*Fully naturalised. N.; S.: abundant and widespread in many parts from the Wangaroa area (N. Auckland) to Bluff (Southland), especially in areas with moderate to fairly high rainfall.*

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?**  
(i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)  
*n/a*

**Does the plant have the potential to cause adverse impacts?**  
(Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)  

**WRA result and score, for example "reject (18)".**  
NOTE - “reject” means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.  
*Reject (18)*

**Comments on WRA score**  
(Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)  
*Nil*

**Objective evidence it has been or is deliberately distributed in NZ.**  
Discussed in section 3.2.1 of the evaluation criteria report.  
*Nil*

**Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level**  
—

**NZ Nursery register 2004/05 genus level only**  
80

**NZ Nursery Register 1997/98 genus level only**  
77

**NZ Nursery register 1991/92 genus level only**  
65

**Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ**  
(i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant  
30 suppliers in total in RHS PF; 6 of E. lusitanica, 9 of E.I 'George Hunt', 5 of E.I 'Sheffield Park', 12 of E.I x E. veitchii 'Exeter' and 4 of E.I x E. veitchii 'Pink Joy'.

**Known vs potential distribution in NZ (abundance in New Zealand)**  
(Discussed in section 3.2.2 of the evaluation criteria report.)  
Gradings?:  
*Widespread, common, Nth Island, Sth Island, Regions? Habitats? Widely spread from Southland to N. Auckland. Hillside pastures, scrub and grassland, also in open disturbed habitats such as old landslips, railway banks and roadsides, from near sea level to c. 1000 m. Potential unknown.*
Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
DoC weed-led

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
WRA=18 (Reject). Inclusion may support DOC’s weed-led programme of control and ARC’s "ban-from-sale".

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Already a very wide spread and abundant spp in NZ, dispersing naturally by a variety of mechanisms. Preventing sale and distribution now is possibly unlikely to have any useful effect in stemming the future spread and impacts of this species.

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

**Erigeron karvinskianus**

**Common names**
Mexican daisy

**Synonyms**
Erigeron mucronatus, Erigeron "Profusion"

**Is the plant species present in NZ?** (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes. North and South islands. Throughout, common, abundant, aggressive.
If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Yes. Substantial colonisation of open and/or rocky habitats. A serious conservation and amenity horticultural weed.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject 23

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

definite rejection, surprised that this wasn't a higher score!!

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Sold in nurseries in the past.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

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NZ Nursery register 2004/05 genus level only

--

NZ Nursery Register 1997/98 genus level only

57

NZ Nursery register 1991/92 genus level only

41

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Attractive plant. Probably still distributed by passing amongst gardeners.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

potentially widespread in lowland up montane habitats throughout NZ

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

difficult since it produces abundant seed and can be wind dispersed. Can be sprayed and hand weeded.

National eradication i.e. DOC, MAF

--

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?
It is suggested to be non-toxic, but it seems that most species in the genus (if not all) contain irritant compounds that may cause dermatitis.

**Reasons for inclusion in NPPA.** A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Aggressive colonising weed of open and disturbed habitats. Smothers other low growing vegetation.

**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None.

**Include in NPPA?**

*YES - high priority*

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

*Nil*

**Notes from TAG meeting**

*Nil*

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**Euonymus japonicus**

**Common names**

Japanese spindle tree

**Synonyms**

*Nil*

**Is the plant species present in NZ?** (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

*YES*

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/evidence).

*YES - Flora IV: Nth Is - well est in Auckland City, also collected from Levin, Pukerua Bay (waste places, scrubland). 22 voucher specimens of naturalised material in Auckland Herbarium - oldest 1970 (AK 250341).*

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

*-

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals)

*YES - CONSERVATION VALUES: invades forest margins, disturbed and secondary forest and shrubland, coastal scrub and forest, cliffs and sand dunes on the mainland and on offshore islands*

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

*Reject (21) NB: Unsure re allelopathic effects or self-compatibility."

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

*Quite a lot of information on impacts and invasiveness available about this E. japonicus in NZ. Reasonably confident about WRA score - apart from those things mentioned.*

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report.
Sold in the garden industry - desirable for its brightly coloured fruit and variegated foliage (cvs). Unsure of level of market now. Inclusion as a National Surveillance Plant Pest and in some RPMS may have limited is propagation and sale since the mid-1990s.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
—

NZ Nursery register 2004/05 genus level only
—

NZ Nursery Register 1997/98 genus level only
—

NZ Nursery register 1991/92 genus level only
49

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Currently naturalised distribution confined to the NI - primarily in coastal and lowland areas. Potential to spread further than current extent.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Physical Control (Hand pull seedlings, cut and stump treat larger trees); Chemical Control (Larger shrubs and trees - cut down and apply herbicide to cut stumps, e.g. glyphosate, metsulfuron-methyl, triclopyr - or spray whole tree/infestation). Biological Control: None available.

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Overseas: naturalised and invasive in a number of north-western US states. Was included on the National Surveillance Plant Pest list and still included in some RPMS.

Any known impact on human health?
All Euonymus spp. are believe to be highly toxic due to the presence of glycosides. Ingestions of these plants, especially in large amounts, are expected to cause serious effects to major body organs such as the liver, heart or kidneys. All parts of these plants are poisonous and ingestion will lead to vomiting, diarrhea, weakness, chills, coma, and convulsions.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
WRA score high Reject (21). One member of a very weedy genus. Was included on the National Surveillance Plant Pest list. Toxic to humans and animals (Connor, 1977).
Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting
Nil

**Ficus rubiginosa**

Common names

Synonyms

Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

YES

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

YES - Flora IV: Nth Is - recently naturalised in Auckland City. GISD - Northland, Auckland, BoP, Hawke's Bay - established and spreading. NB - pollinating wasp present in NZ only for the last 20 yrs - so naturalisation only since that time. Distribution now increasing. 16 voucher specimens of naturalised material in Auckland Herbarium - oldest records 1983 (e.g. AK 165261).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

YES - CONSERVATION VALUES: Strangler fig that grows into a long-lived and large tree (to c.15m). Can damage or kill its supporting plant. Can invade forests in any successional phase and regardless of disturbance (GISD). Persists in later succession vegetation. As a hemi-epiphyte - capable of invading forest or other native communities at any successional stage. Very drought tolerant. Major threat to native lava communities, e.g. Rangitoto Is http://issg.appfa.auckland.ac.nz/database/species/reference_files/TURTID/Wotherspoon.pdf ECONOMIC IMPACTS: potentially a huge lithophyte, so could inflict serious damage on urban infrastructure. (GISD)

WRA result and score, for example "reject (18)". NOTE - “reject” means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Reject (17.5)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Large number of species in genus recognised as weedy/ invasive overseas including Ficus benjamina, F. elastica, F. macrophylla, F. microcarpa etc. (PIER database).

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Flora IV - cultivated as an ornamental/amenity and specimen tree. GISD - commonly cultivated in northern NZ.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Initially limited to cultivated individuals - but now pollinator is present beginning to naturalise and spread more widely. Potentially a major weed in warmer parts of NZ - including NI and northern SI regions (e.g. Northland, Auckland, Waikato, BoP, Hawke's Bay, Taranaki, Wairarapa, Wellington, Nelson/Marlborough, NW Nelson, West Coast).

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
DIFFICULT TO CONTROL - as untreated or insufficiently treated trees able to resprout - also difficult to identify trees establishing as epiphytes in forest habitats. Physical Control (pull out seedlings & cut down larger trees); Chemical Control (fell trees and drill and inject herbicide into the trunk or paint the stump with herbicide). Biological Control: None available.

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
NZ: DoC weed-led. ARC site-led control on regional park land. Was a National Surveillance Plant Pest and still included in some RPMS as a Surveillance Pest Plant.

Any known impact on human health?
The sap of Ficus spp. can cause photodermatitis and eczema. Consequent skin pigmentation may last for many years.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
WRA score Reject (17.5). One member of a very weedy genus. Prior to the arrival of F. rubiginosa's pollinating wasp Pleistodontes imperialis, about 20 years ago - no seed set in NZ. Seed can now be produced with planted trees acting as sources for invasion. Therefore important to prevent further sale and deliberate human-mediated spread of this species. Was included on the 'National Surveillance Pest Plant List' and therefore in a number of RPMS as a Surveillance Pest Plant - meaning sale of this plant has been either non-existent or at very low levels for over 10 years.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none
Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Likely to be little impact on the nursery industry of including this species. This species is most highly valuable in NZ as an ornamental/specimen tree particularly in parks and gardens, and in association with old settlements/buildings.

Notes from TAG meeting
Nil

**Fuchsia boliviana**

Common names

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
YES

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
YES - CONSERVATION VALUES: Establishes along track and stream sides, forest margins, in disturbed and intact forest. Very shade tolerant. Able to disperse large distance from cultivated and naturalised individual via bird dispersal. Forms dense, tall thickets of up to c.2m tall.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (10) NB Unsure of self-compatibility & amount of seed produced

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Not able to find much information about this species becoming an environmental weed in other countries and limited information from NZ. No personal experience of this plant other than in cultivated situations.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Sold in the garden industry mainly as F. b. var. luxurians. Flora IV - commonly cultivated in warmer parts of NZ, esp. north of Volcanic Plateau.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
1

NZ Nursery register 2004/05 genus level only
4

NZ Nursery Register 1997/98 genus level only
4
NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

NZ: Garden dumping has resulted in some spread (AK herbarium records).

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Known to have naturalised in warm northern NI regions. Likely able to spread far more widely, with hard frosts probably the main limiting factor.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

NB control methods for F. magellanica from Australia which I am assuming will be applicable: Physical Control (hand pull small plants and seedlings); Chemical Control (Either foliar spray or cut and paint stumps cut close to the ground with a Glyphosate-based herbicide) http://www.bushcare.tas.gov.au/care/wdspecies.htm#fuchsia

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

—

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

NZ: DoC weed-led

Any known impact on human health?

No known harm

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

WRA score Reject (10). Risk assessment score not that high and information found on extent of impact here limited. Naturalisation relatively recent - but high seed production and bird dispersal of seed, ability to grow in low light, and alter understorey composition etc - all suggest species should be included on the NPPA.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none

Include in NPPA?

YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Does not appear to be that widely sold - so not significant impact on nursery industry. Also many other Fuchsia species available as alternatives.

Notes from TAG meeting

Nil
Galeobdolon luteum

Common names
aluminium plant, artillery plant

Synonyms
Lamium galeobdolon, Galeobdolon argentatum

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
yes (Fl NZ vol IV). Spreads vegetatively, conflicting reports on spread by seed.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Groundcover species forming thick mats preventing regeneration (ARC proposal)

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject (9)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
No listings for this species in catalogues, but has been known by other names so may have been listed under other names. Available on internet under synonym at http://homepages.ihug.co.nz/~waitoka/plants/cold.html

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
—

NZ Nursery register 2004/05 genus level only
—

NZ Nursery Register 1997/98 genus level only
—

NZ Nursery register 1991/92 genus level only
—

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Listed in NZ published and distributed gardening books such as Bryant 1994 and Bryant 1999 (under 2 different names).

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Widespread and relatively common species in the North and South Islands. Certainly not yet everywhere it could be (only reported naturalised in 1980s)
Ease of control of the plant as a species  
(Disussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Fragments grow easily so physical control generally ineffective. Reported to be controlled with glyphosate although some different reports.

National eradication i.e. DOC, MAF

–

RPMS YES/NO refer to master document

–

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Controlled in some DOC reserves on a site-led basis.

Any known impact on human health?

No known harm, although there is some anecdotal evidence that it may cause allergy on some people.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Currently sold, invasive and spreading. Recent naturalisation (1980s) so at a relatively early stage of invasion. Limited ability to spread without human assistance so deliberate sale probably a significant pathways for spread.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Not as invasive as some other smothering groundcover species (neither as vigorous or as shade tolerant in my experience), may be some objections from sellers.

Include in NPPA?

YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil

Genista monspessulana

Common names
Montpellier broom, French broom

Synonyms
Teline monspessulana

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
yes. North and South Islands. Flora IV. Note that there are a lot of plants that appear to intermediate between G. monspessulana and G. stenopetala. These may be hybrids or part of the range of natural variation of G. monspessulana - this issue needs to be investigated. (Possibly both species and hybrids should be on NPPA).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Yes. colonises disturbed areas, forest margins, scrub associations, and waterways.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject 22 and 14.5

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Genus sold in nurseries. I have seen this species for sale in garden centres.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

—

NZ Nursery register 2004/05 genus level only

—

NZ Nursery Register 1997/98 genus level only

48

NZ Nursery register 1991/92 genus level only

35

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Attractive plant, with yellow flowers.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Has the potential to considerably expand its range and abundance.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

spraying and handweeding.

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

—

NPPA YES/NO

No

Notifiable organism

No
Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

ARC Surveillance plant.

Any known impact on human health?
No known harm

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Already well established but this species has the potential to become much more widespread and common. Therefore, its cultivation potential should be reduced by it being included on the NPPA.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Perhaps too well established?

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Includes a broad range of morphological variations that may represent hybrids with genista stenopetallia. Requires further work

**Gunnera manicata**

Common names

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Probably not, but too difficult to distinguish from G.tinctoria

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
Probably similar to G.tinctoria, i.e., widespread on moist colluviums

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Has potential to smother native species in the same way as G.tinctoria

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Insufficient information

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Widely sold by nurseries, even if under incorrect names.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

7

NZ Nursery register 2004/05 genus level only

63

NZ Nursery Register 1997/98 genus level only

54

NZ Nursery register 1991/92 genus level only

19

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

It may not have yet naturalised but there is difficulty distinguishing it. Potential distribution may be widespread if it is like G.tinctoria

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

No specific data, but if it is like G.tinctoria it will be relatively easy to control with appropriate sprays. Its location on inaccessible habitats makes this problematical however.

National eradication i.e. DOC, MAF

No

RPMS YES/NO refer to master document

—

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

The leaf stalks are covered in stout prickles that can cause mechanical injury. Handling plant may also cause skin irritation or allergic reaction

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

The difficulty of distinguishing this species from G.tinctoria is reason alone to ban it, to avoid confusion and mislabeling

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Only that this species and G.tinctoria are popular

Include in NPPA?

No
If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Difficulties with ID. Can be ID’d by a ‘specialist’. Incorrect labelling. Refer to Steering Group. TAG comment - not naturalised, not recorded as weed, very difficult to ID at size sold, implementation problem, steering group decision but note TAG c

**Gunnera tinctoria**

Common names
*Chilean rhubarb*

Synonyms
*Nil*

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
*yes*

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
*Yes, widespread in western Taranaki and Wanganui, scattered elsewhere in N.Is., and scattered in South Island, particularly on the West Coast*

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
*n/a*

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
*Smothers native communities, including threatened species. Completely transforms the landscape. Ranges from sea level to the montane zone*

WRA result and score, for example "reject (18)". NOTE - “reject” means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
*reject (10)*

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
*Relatively low score reflects absence of noxious features and fact of being only an environmental weed*

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Very widely sold

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
*24*

NZ Nursery register 2004/05 genus level only
*63*

NZ Nursery Register 1997/98 genus level only
*54*

NZ Nursery register 1991/92 genus level only
*19*
Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Often seed at scholl fairs and the like.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Has a very wide range from Stewart Island to Northland. Limited mainly by suitable habitat of moist colluviums

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Adult plants and seedlings are relatively easy to control with appropriate sprays. Its location on inaccessible habitats makes this problematical however.

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

DoC weed-led

Any known impact on human health?

Leaves and stems are covered in rubbery prickles that can cause mechanical injury.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Natural dispersal appears to be rather slow except where suitable habitat is continuous, such as taranaki cliffs. Therefore human dispersal to find new loci are critical

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Popular garden plant.

Include in NPPA?

YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil

Gymnocoronis spilanthoides

Common names

Senegal tea, temple plant, costata

Synonyms

Nil
Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, scattered garden sites in North and northern South Island.

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, naturalised on Papakura Stream and Wairoa River (Auckland Region)

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (e.g., conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Invasive in fertile wetlands, flowing and still waters, impacting biodiversity and promoting flooding.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
15 (8 - P&C) (Reject) AWRAM 57

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. (Discussed in section 3.2.1 of the evaluation criteria report. Widely sold as an aquarium plant (as costata) and an ornamental pond plant, prior to gazettal as a noxious plant (1991).

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Few known occurrences. Could be problematic in most nutrient-rich water bodies in lowland New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Difficult to control, both through lack of effective methods and its aquatic habitat.

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes
Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
This plant would be desirable if available for sale and distribution. An attractive fast growing ornamental pond plant with scented white flowers attractive to butterflies, also suitable for aquarium culture as a submerged plant. Highly invasive promoting flooding.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None, less invasive marginal plants available

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Hedera helix subsp. helix and cultivars

Common names
English ivy

Synonyms
Hedera helix f.arborescens, H.helix f. minima, H.helix var. conglomerata, H.helix var. crenata, H.helix var.minima, H.helix var. taurica, H.petarum var. taurica, H.taurica. Possibly H.hibernica

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
yes (Fl.NZ vol IV). Spread by seed (bird dispersed) and vegetative (either dumping of garden waste or deliberate planting)

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals).
Grows as a ground cover and self-clinging vine on trees etc. As groundcover inhibits seedling recruitment and competes with native groundcover species, as a vine on trees can damage trees eg by making them more vulnerable to being blown over or losing branches due to extra weight
WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject (19)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. (Discussed in section 3.2.1 of the evaluation criteria report. Numerous listings at species and genus level (uncertain how much is subsp helix and how much canariensis because they are very difficult to tell apart, but no other species is widely cultivated).

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
15

NZ Nursery register 2004/05 genus level only
61

NZ Nursery Register 1997/98 genus level only
49

NZ Nursery register 1991/92 genus level only
46

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Listed in NZ published and distributed gardening books such as Nicholls (1995) Bryant 1994. Ivy cultivars (uncertain which subspecies) are common in urban amenity plantings eg traffic islands.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Widespread and common species. Likley to be present in all regions as widely cultivated and sold and has been naturalised since 1873. Hasn't reached every park or reserve that could be affected though

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Can be controlled with herbicides although generally quite hard to kill and frequent repeat treatments required. Manual control is difficult because fragments resprout and also many people get skin rashes from contact with the sap so care has to be taken with control and disposal.

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
In 4 RPMSs (mainly surveillance etc aiming at prevent distribution rather than eradication). Controlled in some DOC reserves on a site-led basis (eg Carluke Reserve, Marlborough Sounds).

Any known impact on human health?
Clipping or just handling the plant may result in a skin rash and even blistering and inflammation. Sap is toxic and contact dermatitis is often reported, which are frequently serious. The medical literature even describes cases of death
by suffocation due to contact with this plant. Ingestion may cause rash, vomiting or diarrhea, which can be serious in children.

**Reasons for inclusion in NPPA.** A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Widely sold. Relatively serious invasive weed which can spread by bird-dispersed seed, but human dispersal probably more important, especially for longer distance dispersal.

**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Dumping of garden waste may more significant than sale (although deliberate planting is often the source of dumped material). Well established weed already, so less to gain from banning than a less widely distributed species. Likely to be objections from industry as this is a popular species.

**Include in NPPA?**
No - needs more information. Will be considered for next review round of Accord

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Only one subspecies is proposed. The two subspecies (subsp. helix and canariensis) are very difficult to reliably distinguish and this is likely to create significant problems with enforcement. This needs discussion but I would recommend either including the whole species, or not including ivy at all.

**Notes from TAG meeting**
require more information around subspecies/sterile cultivars. RA group to investigate

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**Hedychium flavescens**

**Common names**
Yellow ginger

**Synonyms**
Nil

**Is the plant species present in NZ?** (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

yes

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

Widespread in warmer areas of New Zealand, especially Northland, Auckland, Coromandel, and Taranaki Localized in Nelson-Marlborough coastal areas of South Island

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Smother native vegetation and prevents regeneration, especially in forested areas

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject (14)

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Lower score than H. gardnerianum because does not disperse by seed.
Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Previously widely grown as an ornamental

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

—

NZ Nursery register 2004/05 genus level only
8

NZ Nursery Register 1997/98 genus level only
3

NZ Nursery register 1991/92 genus level only
—

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Strong appeal as an ornamental

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Grading? Widespread, common, Nth Island, Sth Island, Regions? Habitats? Potential to greatly expand within its present northern range and also to new areas further south

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Can be readily controlled with injected herbicide but labor intensive

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Because does not spread by seed, human dispersal is critical for establishment of new loci.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Popular garden plant, although public awareness of the issue is growing

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil
Notes from TAG meeting
Nil

**Hedychium gardnerianum**

**Common names**
Kahili ginger

**Synonyms**
Nil

**Is the plant species present in NZ?** (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Widespread in warmer areas of New Zealand, especially Northland, Auckland, Coromandel. Localized in northern coastal areas of South Island, especially on the West Coast as far down as Haast.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)
Smother native vegetation and prevents regeneration, especially in forested areas

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject (15)

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report. Previously widely grown as an ornamental

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only
8

NZ Nursery Register 1997/98 genus level only
3

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Strong appeal as an ornamental

**Known vs potential distribution in NZ (abundance in New Zealand)** (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Potential to greatly expand within its present northern range and also to new areas further south, i.e. most recently become a problem in Bay of Plenty

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Can be readily controlled with injected herbicide but labor intensive

National eradication i.e. DOC, MAF
---

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

DoC weed-led

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Human dispersal an important part of its range expansion, e.g., on the West coast, has spread from garden plantings into forest behind in just the last decade. Listing important part of preventing further new loci.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Popular garden plant, although public awareness of the issue is growing

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

**Heracleum mantegazzianum**

Common names
Giant hogweed, Cartwheel flower, Wild parsnip, Wild rhubarb

Synonyms
Nil

Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, already established in some places. Common weed in UK.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Very serious, especially along river and stream banks. Sitter for fenced-off riparian conservation sites. "It forms a dense canopy outcompeting native riparian species and results in an increase in soil erosion along the stream banks where it occurs. The plant exudes a clear watery sap which sensitizes the skin to ultraviolet radiation. This can result in severe burns to the affected areas resulting in severe blistering and painful dermatitis." - US website.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
AIP wra score 15

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Underestimates threat, which is to riparian areas. In UK and elsewhere it has formed huge dense stands along river banks. It's also a serious threat to human health.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
- 
NZ Nursery register 2004/05 genus level only
- 
NZ Nursery Register 1997/98 genus level only
- 
NZ Nursery register 1991/92 genus level only
- 
Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Use encouraged in a gardening column in the Listener 3 or 4 years ago.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?:: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Very limited distribution now, but could probably become widely distributed along river and stream banks, especially as more of these are likely to be fenced off from grazing stock in the future.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Above ground parts easy to knock down, but persistent rootstocks can be hard to kill. Glyphosate does the job apparently.

National eradication i.e. DOC, MAF
-

RPMS YES/NO refer to master document
-

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
Heracleum mantegazzianum exudes a clear watery sap from all parts of the plant, particularly from the stem, which contains glucoside phototoxins that react with ultraviolet light (from sunlight) (Gunby 1980; USDA 2003). This reaction can result in serious skin burns and lead to severe blistering and painful dermatitis. According to Northall (2003) “phytotoxicity is characterised by the development of erythema, oedema and burn-like lesions within 24 hours and possibly large, fluid filled blisters within 48” (Fig. 1). These blisters can develop into purplish or blackened scars, and the affected areas may remain hypersensitive to UV light for many years (Gunby 1980).

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Serious weed overseas, replacing native veg along river and stream banks. Very limited distribution in NZ. Sometimes promoted as a foliage plant and curiosity here. Serious human health potential.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Not yet serious here and may never be.

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Hieracium argillaceum group

Common names

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p327, Vol IV

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Fully naturalised. S.: Canterbury (Mt Torlesse and Lake Pukaki), C. Otago.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)
WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

More info needed (14)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

- NZ Nursery register 2004/05 genus level only
- NZ Nursery Register 1997/98 genus level only
- NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Widely spread in Sl from Canty to C. Otago. 7 map references. Not known from Ni. Roadsides, rocky places, waste land, in scrub, grassland and forest.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

- National eradication i.e. DOC, MAF
- RPMS YES/NO refer to master document
- NPPA YES/NO
  No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

NZB - prohibited plant species

Any known impact on human health?

No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

ditto
**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

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Hieracium aurantiacum

Common names
orange hawkweed

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p328, Vol IV

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Fully naturalised. N.: Manawatu (Feilding); S.: Nelson, Canterbury, Westland (Otira), Otago, Southland; St.: Halfmoon Bay.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
More info needed (19)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
—

NZ Nursery register 2004/05 genus level only
—

NZ Nursery Register 1997/98 genus level only
—
NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widely spread, common, Nth Island, Sth Island, Regions? Habitats?

Widely spread in SI and is known from Manawatu in NI. 19 map refs in SI, one in NI. Waste land, grassland, scrub, tussock grassland, roadsides, lawns, gardens, pastures.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

—

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

—

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

NZB - prohibited plant species

Any known impact on human health?

No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

ditto

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none

Include in NPPA?

YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil

Hieracium caespitosum

Common names
field hawkweed

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p328, Vol IV

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Fully naturalised. S.: Marlborough, Canterbury, Otago (Old Man Range).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (21)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
–

NZ Nursery register 2004/05 genus level only
–

NZ Nursery Register 1997/98 genus level only
–

NZ Nursery register 1991/92 genus level only
–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Widely spread in SI. 21 map references plotted in SI. Grassland, scrub, tracksides, riverbanks, forest margins, roadsides, pasture.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
–

National eradication i.e. DOC, MAF
–

RPMS YES/NO refer to master document
–

NPPA YES/NO
Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
NZB - prohibited plant species

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
ditto

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Hieracium lepidulum

Common names
tussock hawkweed

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p329, Vol IV

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Fully naturalised. N.: Taranaki (Mt Egmont); S.: Nelson, Marlborough, Canterbury, Otago.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals).

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (20)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

—

NZ Nursery register 2004/05 genus level only

—

NZ Nursery Register 1997/98 genus level only

—

NZ Nursery register 1991/92 genus level only

—

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Widely spread in SI. >35 map refs plotted in SI and 1 (Taranaki) in the NI. Grassland, roadsides, riverbanks, riverbeds and gold tailings, beech forest, scrub, pine forests.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

—

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

—

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

NZB - prohibited plant species

Any known impact on human health?

No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

ditto

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none

Include in NPPA?

YES - high priority
Hieracium murorum

Common names

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p329, Vol IV

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Fully naturalised. N.: southern Ruahine Range (Mt Takapari); S.: Canterbury (Hanmer Forest Park), Otago (Dunedin).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals).

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (15)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
–

NZ Nursery register 2004/05 genus level only
–

NZ Nursery Register 1997/98 genus level only
–

NZ Nursery register 1991/92 genus level only
–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Exotic forest, streamside cliffs, roadsides. One map ref plotted (Dunedin).
Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

—

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

—

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

NZB - prohibited plant species

Any known impact on human health?

No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Ditto

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None

Include in NPPA?

YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil

Hieracium pilosella

Common names

mouse-ear hawkweed

Synonyms

Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

Yes, p330, Vol IV

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/evidence)

If no to previous question, what potential does the species have to establish self-sustaining populations in NZ? (i.e. overseas range, e.g., species is currently established in similar climates to NZ e.g., SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (e.g., conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Reject (24)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

—

NZ Nursery register 2004/05 genus level only

—

NZ Nursery Register 1997/98 genus level only

—

NZ Nursery register 1991/92 genus level only

—

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e., garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Grading: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Widely spread throughout eastern SI and central NI - many map refs plotted. Tussock grasslands, lawns, waste land, river terraces, roadsides, rock outcrops, pasture.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

—

National eradication i.e., DOC, MAF

—

RPMS YES/NO refer to master document

—

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc., can be included if available.

NZB - prohibited plant species

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
ditto

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Hieracium pollichiae

Common names
spotted hawkweed

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p331, Vol IV

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
?

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (19)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
–

NZ Nursery register 2004/05 genus level only
–
NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

n/a

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

—

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

—

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

NZB - prohibited plant species

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
ditto

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil

Hieracium praealtum

Common names
king devil

Synonyms

Nil

Is the plant species present in NZ?  (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

Yes, p331, Vol IV

Has the plant species formed self-sustaining populations in New Zealand?  (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

Fully naturalised.  N.: Volcanic Plateau (between Tokoroa and Taupo); S.: Nelson (Glenhope), Marlborough (Mt Richmond), Canterbury, Westland, Otago.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ?  (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts?  (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

WRA result and score, for example "reject (18)".  NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ.  "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Reject (22)

Comments on WRA score  (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ.  Discussed in section 3.2.1 of the evaluation criteria report.

Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

–

NZ Nursery register 2004/05 genus level only

–

NZ Nursery Register 1997/98 genus level only

–

NZ Nursery register 1991/92 genus level only

–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ  (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand)  (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?:  Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Widely spread throughout SI and central NI - many map refs plotted.  Grassland, scrub, stony sites, waste land, roadsides, pasture, occasionally in wet sites.

Ease of control of the plant as a species  (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

–

National eradication i.e. DOC, MAF

–
RPMS YES/NO refer to master document

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
NZB - prohibited plant species

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
ditto

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Hieracium sabaudum

Common names

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p332, Vol IV

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Fully naturalised. S.: Otago (known from only 2 localities - Wanaka and Queenstown).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (17)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

-

NZ Nursery register 2004/05 genus level only

-

NZ Nursery Register 1997/98 genus level only

-

NZ Nursery register 1991/92 genus level only

-

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Restricted current distribution in SI only. Garden weed, waste land.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

-

National eradication i.e. DOC, MAF

-

RPMS YES/NO refer to master document

-

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

NZB - prohibited plant species

Any known impact on human health?

No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

ditto

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none
Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Hieracium spp. (all)

Common names
hawkweed

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
?

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Economic: Pastoral production loss, particularly in higher altitude grazing lands in SI foothills and high country.
Environmental: Replace native herbs and grasses within tussock grasslands.
Social: Not known.
Health: Not known.
Cultural: Not known.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
1

NZ Nursery register 2004/05 genus level only
2

NZ Nursery Register 1997/98 genus level only
3

NZ Nursery register 1991/92 genus level only
2

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
42 suppliers of various Hieracium species in RHS PF, but only H. murorum occurs and was last listed in 2000.

**Known vs potential distribution in NZ (abundance in New Zealand)** (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
*Potential unknown.*

**Ease of control of the plant as a species** (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
While susceptible to herbicides, Hieracium spp are not economic to control with herbicides in pastoral agricultural systems.

National eradication i.e. DOC, MAF

–

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
No known harm.

**Reasons for inclusion in NPPA.** A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
WRA = 14-24 (Reject in all cases except H aurantiacum). Many of the species may not have reached their potential distributions in NZ and some are potentially ornamental and offered for sale (e.g. H. aurantiacum). All species are currently prohibited species in NZ. There are no known economically viable control methods for pastoral populations of these species.

**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
*Whole genus has weed characteristics.*

---

**Hieracium Xstoloniflorum (aurantiacum x pilosella hybrid)**

Common names

Synonyms
Nil
Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p332, Vol IV

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
**Fully naturalised.** N.: Taranaki (Mt Egmont), Wellington City; S.: Marlborough (Pelorous Sound), Canterbury, Westland (Otira), Otago (Oamaru, Queenstown).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals).

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (24)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
—

NZ Nursery register 2004/05 genus level only
—

NZ Nursery Register 1997/98 genus level only
—

NZ Nursery register 1991/92 genus level only
—

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Grading? Widespread, common, Nth Island, Sth Island, Regions? Habitats?
**Widely distributed.** No dist. map. Gardens, waste land, roadsides, grassland, forest and scrub.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
—

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
—

NPPA YES/NO
No
Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
NZB - prohibited plant species

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
ditto

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Homalanthus populifolius

Common names
Queensland poplar, bleeding heart tree, poplar leaved omalanthus

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, North Island, including some offshore islands. has considerably expanded its range (now naturalised in Wellington) in the North Island since its distribution was documented in Flora IV.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Yes. Somewhat shade tolerant and therefore can occur in many different "forest" types.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject 18

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Has been sold in nurseries in the past.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document

YES

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Any known impact on human health?

There is no info harm to humans associate with this species, but a few other species in the genus are known to be irritant and/or poisonous, many of which are said to be used as fish poison.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Becoming more widespread and abundant. Bad weed overseas, and should be on NPPA to restrict its distribution in NZ.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None.

Include in NPPA?

YES - high priority
If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Increasing rate of naturalisation noted around Auckland (e.g. Waitakere Ranges and foothills) - and included in the ARCs RPMS as a Research Organism.

Notes from TAG meeting
Nil

\textbf{Homeria collina}

**Common names**

\textit{Cape tulip}

**Synonyms**

Nil

**Is the plant species present in NZ?** (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

Yes, Wooley's Bay, Portland Island, French Pass

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

Yes, already has.

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Poisonous to stock, could become more widespread, grows and survives in pasture.

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

\textit{PAW wra score 6 'more information', aip wra score 18 'reject', DOC score 19}.

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Surprised paw score so low

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report.

Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

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NZ Nursery register 2004/05 genus level only

---

NZ Nursery Register 1997/98 genus level only

---

NZ Nursery register 1991/92 genus level only

---

**Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ** (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Formerly widely planted in gardens but no more
Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Could probably become more widely distributed

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in environments the plant occurs or could occur in?)
Easy to kill top growth, but hard to kill corms.

National eradication i.e. DOC, MAF
yes

RPMS YES/NO refer to master document
–

NPPA YES/NO
Yes

Notifiable organism
notifiable

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Very occasionally still found in gardens

Any known impact on human health?
All parts of H. collina plants are poisonous to livestock and humans even when they are dead and dry. Symptoms that include gastroenteritis, thirst, paralysis, blindness and heart and kidney failure.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Long time noxious plant, very limited distribution with room to spread, toxic to stock. Federal weed in US and declared weed in most of Australia.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
No effect on environment, little effect on agriculture, may not be as toxic as generally thought, unlikely to be a serious problem

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Houttuynia cordata

Common names
Chameleon plant

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, scattered garden localities in both islands.

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Not reported as naturalised

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
Native to east Asian islands, hardy to -15C, also sub-tropical climates, shade tolerant, typically in wet habitats.

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Could pose a serious threat to short-stature wetland (< 1m) vegetation and prevent regeneration.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
9 (Reject)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Imported under an incorrect name, subsequently distributed before all nursery stock could be destroyed.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
--
NZ Nursery register 2004/05 genus level only
--
NZ Nursery Register 1997/98 genus level only
--
NZ Nursery register 1991/92 genus level only
--

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
A colourful plant suitable for damp shady areas in gardens, also has many herbal properties with traditional use in asian medicine.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Not naturalised in New Zealand. Could naturalise in any wet areas, even in upland areas.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Probably difficult to control due to rhizomatous growth habit

National eradication i.e. DOC, MAF
--

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

Nil

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

This plant would be desirable if available for sale and distribution. Potentially a problem weed of wet areas.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Potentially a useful herbal remedy (reported anti-HIV properties).

Include in NPPA?

YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil

Hydrilla verticillata

Common names

Hydrilla

Synonyms

Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

Yes, restricted to 4 Hawkes Bay lakes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

Yes, submerged species invasive at all sites

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Extremely invasive, disrupts hydro-electric power generation, drainage, irrigation and recreational activities. Displaces other vegetation from much of submerged range (to ~9 m).

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

21 (20 P&C) (Reject) AWRAM (74)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil
Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Not known to be sold in New Zealand. Banned from sale in 1982 (Noxious Plant Act 1978).

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Commonly referred to in international aquarium literature as an oxygenator plant for ponds/aquaria.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats? Could be problematic in most nutrient-rich water bodies in New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Difficult to control (worse than all other submerged spp. in New Zealand), both through lack of effective methods and its aquatic habitat.

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

No known harm to human health. However, human well-being may be indirectly affected as where this plant occurs, it causes substantial economic hardships, interferes with various water uses, and adversely impacts freshwater habitats.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Only spread by human activities, either deliberate or accidental (e.g. contaminated nets, boats and drainage machinery). NPPA inclusion reduces long-distance spread.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None, less invasive submerged plants available

Include in NPPA?

YES - high priority
Hydrocleys nymphoides

Common names
Water poppy

Synonyms
Hydrocleis nymphoides

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, scattered northern North Island localities

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, invasive throughout New Zealand range

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Invasive in shallow water bodies, including flowing water. Smothers other plants and disrupts irrigation/drainage.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
8 (Reject) AWRAM (45)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Previously propagated and sold, most occurrences are in ornamental ponds.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Commonly offered for sale overseas.
Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)  
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?  
Few known occurrences. Could be problematic in most nutrient-rich water bodies in lowland New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)  
Difficult to control, herbicides used require RC consent.

National eradication i.e. DOC, MAF  
—

RPMS YES/NO refer to master document  
Yes

NPPA YES/NO  
Yes

Notifiable organism  
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.  
Nil

Any known impact on human health?  
No known harm, but this plant may impact on human well-being by blocking access to water and degrading water quality.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)  
Only spread by deliberate human planting and subsequent movement by water. NPPA inclusion would prevent spread to new catchments.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.  
None, less invasive waterlily-type plants available

Include in NPPA?  
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.  
Nil

Notes from TAG meeting  
Nil

Hypericum androsaemum

Common names  
tutsan, sweet amber

Synonyms  
Nil

Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)  
Yes
Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, North Island and South Island. Flora IV. Often very abundant.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Yes, already has - rapid growth, colonising ability, tolerance of partial shade means it is well established in some conservation and natural ecosystem areas.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject 18

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
1

NZ Nursery register 2004/05 genus level only
53

NZ Nursery Register 1997/98 genus level only
61

NZ Nursery register 1991/92 genus level only
58

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Could be confused for other species of Hypericum.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Already well established in higher rainfall areas. Could become more abundant in these areas and also could become more common in specific wetter habitats in drier easter South and Notrh Islands.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
spray and hand weeding.

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
No

Notifiable organism
No
Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?
A few species in the genus are known to cause major toxicity. Ingestion of the plants by animals can lead to primary photosensitisation from absorption of the plant pigment hypericin, producing a condition known as hypericism (Kingsbury 1964, Morton 1971). At least four species have been implicated, but photosensitivity from ingestion of the plants has not been observed in humans, H. androsaemum is supposedly not as toxic as other Hypericum spp, but its berries are said to be poisonous and this species may also cause contact dermatitis.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Well established and should not be deliberately spread elsewhere if possible.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None.

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Ipomoea indica

Common names
Blue morning glory

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
YES

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
YES - Flora IV: Nth Is - lower parts from N Auckland to Wellington area. Sth Is, northern areas (Forest & scrub margins, around gardens and plantations). UO Declaration (DoC) - well established in Northland and Auckland and parts of the remainder of the NI and northern SI. NB Pre-1996 not known to set seed. 1996- plant found in BoP producing large amounts of seed and with seedlings nearby. Therefore - spread to more remote locations via seed dispersal more of a threat. 28 voucher specimens of naturalised material in Auckland Herbarium - oldest record 1964 (AK 101463).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals).
YES - CONSERVATION VALUES: Very broad environmental tolerances - but not tolerant of frost, the main limiting factor of establishment. Aggressive perennial vine that can form dense carpets across the ground and up supporting
vegetation - smothering, and weight of the vines can cause canopy collapse. Invades forest margins and then spreads into intact forest.

**WRA result and score, for example "reject (18)"**. NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Reject (18) NB Unsure re palatability, toxicity, and potential for allelopathy. Also have assumed not self-compatible.

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Very fast growing aggressive vine recognised as an invasive weed here and overseas (e.g. Australia, Hawaii). Now known to produce seed in NZ - which will allow greater spread into more remote areas. NB: Other species in the genus also recognised as an environmental weed, e.g. I. cairica and I. hederifolia in Australia, I. aquatica on Federal Noxious Weed List in America

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Was sold in the garden industry. Popular garden plant in the past, with attractive blue flowers.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

---

NZ Nursery register 2004/05 genus level only

11

NZ Nursery Register 1997/98 genus level only

7

NZ Nursery register 1991/92 genus level only

---

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

UO Declaration (DoC) & ARC factsheet: garden dumping occurred because of its rampant nature in cultivation.

**Known vs potential distribution in NZ (abundance in New Zealand)** (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Widespread in parts of the NI and northern parts of the SI. Seed set still thought to be a minor part of its spread. Potential become much more widely naturalised.

**Ease of control of the plant as a species** (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

CONTROL DIFFICULT - whole plant must be controlled or removed as regrows from even small stem fragments.

Physical Control (Small infestations can be cut and the roots dug up - ensuring all plant material is removed); Chemical Control (cut the vines, leaving vines to die, and apply glyphosate-based or 2,4-D plus dicamba herbicide to the cut stems; in open areas, where damage to underlying plants is not a concern, overall spray of the same herbicides can be applied). Biological Control: None available.

**National eradication i.e. DOC, MAF**

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RPMS YES/NO refer to master document

---

**NPPA YES/NO**

No

**Notifiable organism**

No

**Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.**
NZ: DoC weed-led. Was a National Surveillance Plant Pest and currently included on the NPPA list. Overseas: Pest plant in Hawaii and Australia.

Any known impact on human health?
It is said to be poisonous to humans, but no details are available. The seeds of some Ipomoea spp. have powerful hallucinogenic drugs.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
WRA score high Reject(18). Highly invasive vine with serious environmental impacts. NPPA status should be retained.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Not currently sold so no nursery industry implications.

Notes from TAG meeting
Nil

Iris pseudacorus

Common names
Yellow flag, yellow flag iris

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, scattered throughout, locally common (e.g. lower Waikato River, Avon River)

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/evidence).
Yes, invasive throughout New Zealand range

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals).
Invasive in wetlands (including salt marsh) and water body margins, displacing other species. Invades wet pasture, toxic to livestock.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
21 (Reject) AWRAM (52)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Widely sold as an ornamental pond plant, with several varieties listed in Gaddum despite it's current NPPA status

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

11

NZ Nursery register 2004/05 genus level only

48

NZ Nursery Register 1997/98 genus level only

48

NZ Nursery register 1991/92 genus level only

51

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Scattered distribution, only abundant in lower Waikato and Avon River catchments. Could be problematic in many water bodies, wetlands and estuarine areas throughout New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Relatively easy to control, but regrowth from seed and rhizomes.

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

DoC weed-led - Northland, West Coast

Any known impact on human health?

This species can cause contact dermatitis and allergies in some people, via contact with sap or seeds in particular. Many plants in this genus are poisonous if ingested, with roots and leaves toxic to animals, including humans. This species in particular has poisoned cattle and swine and may cause similar symptoms in humans if the rhizomes are ingested.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

A popular garden plant mostly spread by deliberate human planting and subsequent movement by water. NPPA inclusion would prevent spread to new catchments.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None, other less invasive aquatic irises are available

Include in NPPA?

YES - high priority
If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

**Jasminum humile**

**Common names**
+ Italian jasmine, yellow jasmine, Italian yellow jasmine, yellow bush jasmine

**Synonyms**
Nil

**Is the plant species present in NZ?** (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes (Fl.NZ vol IV). Spread by seed (bird dispersed). Limited if any vegetative spread.

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
N/A

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Forms dense thickets that exclude native species eg in forest gaps and open limestone areas eg on the cliff at Grove Scenic Reserve, Takaka

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (12)

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report. Two listings for this species in Gaddum, genus widely distributed but most Nursery Register references not for this species. Listed as available on internet from NZ nurseries eg http://www.bmn.co.nz, http://www.plantlife.co.nz

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
2

NZ Nursery register 2004/05 genus level only
62

NZ Nursery Register 1997/98 genus level only
65

NZ Nursery register 1991/92 genus level only
71

**Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ** (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
I have never personally seen this species for sale or cultivated in a garden. Sometimes confused with Jasminum mesnyi which is commonly cultivated.

**Known vs potential distribution in NZ (abundance in New Zealand)** (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Currently has a very limited distribution (Hokitika, Takaka, Waikato and Shannon - Fl NZ vol IV), but these cover a range on environments suggesting that this species is likely to naturalise elsewhere in NZ in future.

**Ease of control of the plant as a species** (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Not a lot of control undertaken as it is quite restricted in its distribution, reportedly killed by metsulfuron, but tends to grow in highly inaccessible areas like cliffs which makes control difficult.

**National eradication i.e. DOC, MAF**
—

**RPMS YES/NO** refer to master document
—

**NPPA YES/NO**
No

**Notifiable organism**
No

**Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.**
Limited control at some reserves. On a number of surveillance lists for DOC conservancies where it is believed to be absent.

**Any known impact on human health?**
Jasminum spp. may cause contact dermatitis in some people.

**Reasons for inclusion in NPPA.** A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Invasive species that is relatively restricted in its distribution but could spread to many other areas, spread by birds but long distance spread is by people. Not spread much by dumping as it doesn't grow particularly well from fragments, so deliberate sale and planting is primary human pathway.

**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Not much active control of this species so lower priority than some other species. May be some industry objections (although not a particularly popular plant).

**Include in NPPA?**
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

**Jasminum polyanthum**

**Common names**
Jasmine, white jasmine
Synonyms

Nil

Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)  

Yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

Yes (Fl.NZ vol IV). Spread is primarily vegetative as fruit seldom produced.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

N/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (e.g. conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Forms extensive masses of layering vines, smothering native vegetation both as a groundcover and climbing up tall trees.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Reject (6)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Low score considering invasiveness, mostly due to the fact that it doesn’t have any means of dispersing without people

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.


Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

12

NZ Nursery register 2004/05 genus level only

62

NZ Nursery Register 1997/98 genus level only

65

NZ Nursery register 1991/92 genus level only

71

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Popular ornamental and easy to propagate. Frequently sold.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Widespread and very common in cultivation. Invasive as far south as Nelson at least. May not become a problem in cooler areas (SI East Coast and inland) but grows well in Christchurch gardens. Although widespread not in many of the reserves that it could invade due to its limited dispersal.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Uncertain. More difficult than some other vines as it doesn’t form a particularly thick trunk so stump treatment less use. Cut stems regrow easily making physical control largely ineffective.

National eradication i.e. DOC, MAF
Kennedia rubicunda

Common names

Synonyms

Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

Yes. Listed as a garden escape in Flora IV. Understood to be naturalised in Northland but no information supplied. Grows naturally in poor sandstone country but does well in high fertility soil. Tolerates dry conditions. Damaged by heavy frosts

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

Unknown

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)
Yes, but exact nature of these unknown since its distribution and habitats are not known.

**WRA result and score, for example "reject (18)".** NOTE: "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

*reject 9*

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

*low score reflects a general lack of information about this species*

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report.

*Genus probably, species possibly.*

**Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level**

1

**NZ Nursery register 2004/05 genus level only**

2

**NZ Nursery Register 1997/98 genus level only**

5

**NZ Nursery register 1991/92 genus level only**

10

**Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ** [i.e. garage sale, overseas, personal observations]. Include comments on appeal as a cultivated plant

*Nil*

**Known vs potential distribution in NZ (abundance in New Zealand)** (Discussed in section 3.2.2 of the evaluation criteria report.)

*Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?*

*unknown*

**Ease of control of the plant as a species** (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

*Nil*

**National eradication i.e. DOC, MAF**

*Nil*

**RPMS YES/NO refer to master document**

*Nil*

**NPPA YES/NO**

*No*

**Notifiable organism**

*No*

**Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.**

*DoC weed-led*

**Any known impact on human health?**

*No known harm.*

**Reasons for inclusion in NPPA.** A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Not known how serious a threat this is.

Include in NPPA?
No - needs more information. Will be considered for next review round of Accord

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Insufficient information available at the time of assessment.

Notes from TAG meeting
Need more info from proposer

Lagarosiphon major

Common names
Lagarosiphon, Oxygen weed

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, widespread in North Island and lowland South Island

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, submerged species invasive at all sites

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Extremely invasive, disrupts hydro-electric power generation, drainage, irrigation and recreational activities. Displaces other vegetation from much of submerged range (to ~6 m).

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
18 (23 P&C) (Reject) AWRAM (60)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Was sold in New Zealand until 1982 (Noxious Plant Act 1978). Possibly still spread by hobbyists.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only
NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Commonly referred to in international aquarium literature as an oxygenator plant for ponds/aquaria.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Widespread in many North Island areas, rare or absent in most of South Island. Could be problematic in most water bodies in New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Difficult to control, both through lack of effective methods and its aquatic habitat.

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
DoC weed-led - eradication attempt from Lake Waikaremoana, management in Lake Wanaka

Any known impact on human health?
No direct harm to human health known. However, it indirectly affects human health, as for instance, L.major caused a power outage in 1968 when it blocked the intake screens at Aratiatia hydro station. This plant is also detrimental to recreation, such as Hamilton Lake and Lake Rotorua.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Only spread by human activities, either deliberate or accidental (e.g. contaminated nets, boats and drainage machinery). NPPA inclusion reduces long-distance spread.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None, less invasive submerged plants available

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil
Lantana camara

Common names
Lantana

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, Northland, Auckland, BOP

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, only in warmer districts

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)
Prickly, smelly, only slightly invasive. Much more damaging in warmer environments like Fiji.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
DC wra score 26, Mul wra score 33, P & C wra score 33, P & R wra score 32, DOC score 28.

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Pretty high. Probably Australian scores. Var in NZ non toxic, less invasive, less troublesome

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
—

NZ Nursery register 2004/05 genus level only
—

NZ Nursery Register 1997/98 genus level only
—

NZ Nursery register 1991/92 genus level only
—

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Found on overseas websites

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Could probably expand its distribution and prevalence in NZ.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Controlling individual plants not too hard, but Australians seem to have problems with large thickets.
National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
Highly toxic and can be LETHAL. Ingestions of L. camara, especially in large amounts, are expected to cause serious effects to major body organs. Wolfson & Solomons 1964 described acute poisoning of children who ingested the green fruit of L. camara. Unfortunately, it seems that it is common for children to be affected by eating its small blue-black berries. Leaves can also cause contact dermatitis, and stout recurved prickles cause mechanical injury. The literature records L. camara poisoning in numerous animals such as cattle, sheep, buffaloes, goats, rats, guinea pigs and kangaroos. Acute poisoning by ingestion in animals, takes the form of “pink-nose” with reddening of the muzzle and conjunctivitis, and severe gastroenteritis with death in as short a time as 3-5 days (Hurst 1942). In chronic poisoning, signs of photosensitisation appear if the animal is exposed to sunlight. Poisoning of cats and dogs are also recorded due to ingestion of immature berries. In NZ, Black & Carter 1985 recorded Lantana poisoning of cattle and sheep.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
NZ forms not toxic, not much of a problem, not very invasive.

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
NZ forms non toxic, not much of a problem, not very invasive.

Notes from TAG meeting
Include on NPPA at species level.

Lantana camara var aculeata

Common names
Lantana

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes, Northland, Auckland, BOP

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, only in warmer districts

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals. prickly, smelly, only slightly invasive. Much more damaging in warmer environments like Fiji.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

DC 26, Mul 33, P & C 33, P & R 32, DOC score 28.

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

pretty high. Probably overseas scores. Var in NZ non toxic, less invasive, less troublesome

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

- NZ Nursery register 2004/05 genus level only
  -
- NZ Nursery Register 1997/98 genus level only
  -
- NZ Nursery register 1991/92 genus level only
  -

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Found on overseas websites

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats? Could probably expand its distribution and prevalence in NZ.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Controlling individual plants not too hard, but Australians seem to have problems with large thickets. Lots of work overseas on biological control.

National eradication i.e. DOC, MAF

- RPMS YES/NO refer to master document
  Yes

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Any known impact on human health?

Highly toxic and can be LETHAL. Ingestions of L. camara, especially in large amounts, are expected to cause serious effects to major body organs. Wolfson & Solomons 1964 described acute poisoning of children who ingested the green fruit of L. camara. Unfortunately, it seems that it is common for children to be affected by eating its small blue-black berries. Leaves can also cause contact dermatitis, and stout recurved prickles cause mechanical injury. The literature records L. camara poisoning in numerous animals such as cattle, sheep, buffaloes, goats, rats, guinea pigs and kangaroos. Acute poisoning by ingestion in animals, takes the form of “pink-nose” with reddening of the muzzle and conjunctivitis, and severe gastroenteritis with death in as short a time as 3-5 days (Hurst 1942). In chronic poisoning, signs of photosensitisation appear if the animal is exposed to sunlight. Poisoning of cats and dogs are also recorded due to ingestion of immature berries. In NZ, Black & Carter 1985 recorded Lantana poisoning of cattle and sheep.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Australian references don’t usually differentiate this form. Precautionary principle says yes.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

NZ forms not toxic, not much of a problem, not very invasive.

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

NZ forms non toxic, not much of a problem, not very invasive.

Notes from TAG meeting
Nil

Leycesteria formosa

Common names
Himalayan honeysuckle

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

Yes, very widespread in wetter regions of both islands, especially in regeneration forest sites. Less common in the east

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Forms dense stands which compete with early native colonists such as tutu. However it is replaced fairly rapidly in succession by taller native species. Also a weed of forestry, covering early plantings.

WRA result and score, for example "reject (18)". NOTE: "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

186
reject (14)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Little evidence of current purposeful spread but historically was a horticultural species

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

--

NZ Nursery register 2004/05 genus level only

--

NZ Nursery Register 1997/98 genus level only

--

NZ Nursery register 1991/92 genus level only

--

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Grading: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Very widespread and total range probably mostly occupied, leaving only "infilling" opportunities at a more local scale.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Readily controlled by sprays.

National eradication i.e. DOC, MAF

No

RPMS YES/NO refer to master document

--

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

To control further spread

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

The species is so widespread and with such good dispersal by birds (and rats) there is little likelihood of banning from sale having any influence on its further spread
Include in NPPA?
No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Following discussions, decided there was little benefit to include on NPPA

**Ligustrum lucidum**

**Common names**
*tree privet*

**Synonyms**
*Nil*

**Is the plant species present in NZ?** *(if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)*
*yes*

**Has the plant species formed self-sustaining populations in New Zealand?** *(Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).*
*Yes, common down to mid North Island but only scattered further south to Nelson-Marlborough*

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** *(i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)*
*n/a*

**Does the plant have the potential to cause adverse impacts?** *(Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)*
*Unlike many woody weeds, this species replaced native species in the forest sub canopy and canopy and therefore can have very long-term impacts on native biodiversity. Also reputed to be allergenic to humans*

**WRA result and score, for example "reject (18)".** *NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.*
*reject (20)*

**Comments on WRA score** *(Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)*
*High score reflects its invasiveness, persistence, and range of impacts.*

**Objective evidence it has been or is deliberately distributed in NZ.** *(Discussed in section 3.2.1 of the evaluation criteria report.)*
*Widely planted as a hedge, but less so now that is currently banned from sale.*

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

—

**NZ Nursery register 2004/05 genus level only**
*28*

**NZ Nursery Register 1997/98 genus level only**
*12*

**NZ Nursery register 1991/92 genus level only**
*31*
Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Current wide distribution indicate potential for spread into many other areas of northern North island, and possibly further south

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Can be killed by chemicals but labor intensive. Critically, it is very cryptic in native forest and difficult to detect before it seeds.

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
DoC weed-led

Any known impact on human health?
All Ligustrum spp. have poisonous black, blue-black or dark purplish berries, which might be eaten by children, leading to vomiting and diarrhoea. Note however, that all plant parts are toxic. Plants in this genus also cause respiratory irritation when in bloom, and contact dermatitis is also known to occur.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
To control further spread into native vegetation including valuable off-shore islands. Note that as a "mast" seeding species it is attractive to starlings which fly long distances to roosting sites.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
No good reason not to control it as plenty of other options available.

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Lilium formosanum

Common names
Formosa lily; Trumpet lily; St Joseph's lily, Taiwan lily
Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes. North Auckland and Bay of Plenty - Flora IV. Now known to have spread extensively and to have colonised a wide range of coastal habitats in northern New Zealand (see accompanying proposal from ARC for inclusion in NPPA).

If no to previous question, what potential does the species have to establish self-sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals. Yes, very significant impacts already happening.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject 23

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Yes sold in nursery trade.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
9

NZ Nursery register 2004/05 genus level only
25

NZ Nursery Register 1997/98 genus level only
30

NZ Nursery register 1991/92 genus level only
24

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Likely to be passed from gardener to gardener.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats? spreading rapidly and has the potential to become very widespread and invasive.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
spray and handweeding.

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
—
NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
ARC weed control programme.

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Spreading rapidly and posing a major impact on coastal and conservation land.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None.

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Lonicera japonica

Common names
Japanese honeysuckle

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, very widespread throughout the North Island, northern South Island, and the West Coast

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Smothers native vegetation, from very early secondary successions through to low forest. Particularly damaging in margins of wetlands.
WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject (17)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Still widely sold

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

7

NZ Nursery register 2004/05 genus level only

—

NZ Nursery Register 1997/98 genus level only

79

NZ Nursery register 1991/92 genus level only

38

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ [i.e. garage sale, overseas, personal observations]. Include comments on appeal as a cultivated plant

Still widely cultivated as a trellis plant because of quick growth and sent.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Very widespread and total range probably mostly occupied, leaving only "infilling" opportunities at a more local scale.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Can be controlled with chemicals, but because of massive root system of established plants, follow up spraying is critical.

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

DoC weed-led

Any known impact on human health?

It can cause contact dermatitis (Webster 1993). There is suggestion that its berries are toxic, but information on this plant is considered incomplete. However, ingestion of small amounts of its berries would not be expected to cause problems.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Although it produces seed, seedlings are in fact not common. This suggest humans are important for its spread so that despite its widespread distribution, banning from sale may still contribute something to reduced rate of further spread
Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

A popular species still for gardeners. The widespread distribution does suggest banning from sale may not have a great effect.

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Ludwigia peploides subsp. montevidensis

Common names
Primrose willow, floating primrose willow, water primrose

Synonyms
Jussiaea montevidensis, Ludwigia adscendens var. montevidensis, Jussiaea repens var. montevidensis

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, abundant in Waikato and West Auckland, sparse in Northland and Manawatu

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, can form floating mats throughout New Zealand range

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Displaces other vegetation in shallow, nutrient-rich water bodies

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
10 (Reject) AWRAM (57)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Possibly sold prior to NPPA status, but not commonly seen in cultivation.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
-

NZ Nursery register 2004/05 genus level only
3

NZ Nursery Register 1997/98 genus level only
NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Rarely promoted as an ornamental pond plant.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Grading? Widespread, common, Nth Island, Sth Island, Regions? Habitats? Limited distribution only common in lower Waikato. Distribution limited by lack of dispersal ability, could become much more widespread especially in lowland areas.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Difficult to control, both through lack of effective methods and its aquatic habitat.

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
No known direct harm. Human well-being can be indirectly affected, as this plant may form very thick beds making boat traffic for instance, impossible. Irrigation and drainage can also be disrupted. Death of fish may also occur in large number due to oxygen depletion.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Only spread by human activities, either deliberate or accidental (e.g. drainage machinery). NPPA inclusion reduces long-distance spread.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None, less invasive marginal plants available

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil
**Ludwigia peruviana**

**Common names**
Water primrose

**Synonyms**
Nil

**Is the plant species present in NZ?** (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
No

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
No

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
Established in NSW (Sydney), listed as tropical/sub-tropical

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Invasive and could be problematic in Northland/Auckland

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
6 (10 P&C, 5 DC) (Reject) AWRAM (65)

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report.
Not known from New Zealand, but was distributed as a pond plant overseas

**Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level**
–

**NZ Nursery register 2004/05 genus level only**
3

**NZ Nursery Register 1997/98 genus level only**
2

**NZ Nursery register 1991/92 genus level only**
1

**Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ** (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

**Known vs potential distribution in NZ (abundance in New Zealand)** (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Not known from New Zealand. Possible weed of nutrient rich wetlands and shallow water bodies in northern North island

**Ease of control of the plant as a species** (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Difficult to control, both through lack of effective methods and its aquatic habitat.
National eradication i.e. DOC, MAF
No

RPMS YES/NO refer to master document
—

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
No known direct harm. Human well-being can be indirectly affected, as this plant may form very thick beds making boat traffic for instance, impossible. Irrigation and drainage can also be disrupted. Death of fish may also occur in large number due to oxygen depletion.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Not in New Zealand, retain UO status

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None, less invasive marginal plants available

Include in NPPA?
No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Lythrum salicaria

Common names
Purple loosestrife

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, locally abundant in Horowhenua and Canterbury, scattered elsewhere, often in gardens.

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, invasive in drains and fertile wetlands.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a
Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Displaces other marginal and wetland vegetation, impedes access to water bodies and affects irrigation/drainage.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
19 (7 DC) (Reject) AWRAM (54)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Widely distributed, several cultivars available. Hybrids with L. virgatum occur.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
21

NZ Nursery register 2004/05 genus level only
8

NZ Nursery Register 1997/98 genus level only
22

NZ Nursery register 1991/92 genus level only
10

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Common garden plant.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Limited distribution only widespread in Horowhenua and Christchurch areas. Could be problematic on margins of most nutrient rich water bodies and wetlands (swamps) in New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Relatively easy to kill plants, but seeds long-lived (several years) and some methods not always acceptable in aquatic situations.

National eradication i.e. DOC, MAF
–

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
DoC/CCG/ECan weed-led - Canterbury DoC/HRC weed-led - Horowhenua

Any known impact on human health?
No known direct harm. Human well-being can be indirectly affected, as this plant may form very thick beds making boat traffic for instance, impossible. Irrigation and drainage can also be disrupted. Death of fish may also occur in large number due to oxygen depletion.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Mostly spread by human activities with subsequent local spread, primarily by water movement. NPPA inclusion reduces long-distance spread.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None, less invasive marginal plants available

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Some interesting genetics in this species. Flower forms are self-incompatable, gardeners tell me they have had it for years without it seeding - this is correct if only one flower form is present but if more than one is present - ie it suffers from alle effects which are likely to be overcome if this species was sold.

Notes from TAG meeting
Nil

**Macfadyena unguis-cati**

Common names
Cat’s claw creeper, cat’s claw vine, cat’s claw ivy, yellow trumpet vine

Synonyms
Doxanthus unguis-cati

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

yes (Fl.NZ vol IV) but only reported wild site was Gisborne in 1945.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Invasive overseas, especially SE Queensland and NWS where it smothers native vegetation including tall trees, and has led to canopy collapse (Eg Wingham Bush in Australia)

WRA result and score, for example "reject (18)". NOTE - “reject” means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject (14)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ [i.e. garage sale, overseas, personal observations]. Include comments on appeal as a cultivated plant

I've never personally seen this species for sale so it is probably quite uncommon

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Overseas this species weedy from the tropics (eg Niue) to warm temperate (New South Wales). Likely to be invasive in Northland, Auckland, Coromandel, less information on whether it may affect other NI and South Island lowland areas.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Very difficult to control due to the production of numerous small tubers underground. Neither herbicide nor mechanical control particularly effective. Stump treatment can be used but extremely labour intensive - requires painting every individual stem with herbicide, on one tree in Winghan Bush, NSW, had 586 stems growing on it.

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

not currently controlled anywhere as uncommon in cultivation and seldom naturalised.

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Highly invasive species overseas and of limited distribution here, so an opportunity to control this species before it gets beyond control. Since it is only sparingly naturalised, human dispersal is currently the primary means of spread.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Isn't causing problems in NZ yet, and has been in NZ for some years. Uncertainty over how bad it would be here and how many areas would be affected. Sold so likely to be some objections from industry.

Include in NPPA?
YES - medium priority
If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Melaleuca quinquenervia

Common names
melaleuca, swamp paperbark tree, cajeput, niaouli

Synonyms
Melaleuca cajuputi

Is the plant species present in NZ?  (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, not reported to be naturalised

Has the plant species formed self-sustaining populations in New Zealand?  (Discussed in section 2.1 of the evaluation criteria report. State where/evidence).
No

If no to previous question, what potential does the species have to establish self-sustaining populations in NZ?  (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
Widely naturalised in South Florida, northern limit corresponds with frost-free areas.

Does the plant have the potential to cause adverse impacts?  (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)
Displaces all other vegetation, increases fire-risk, disrupts wetland ecological processes. Impedes access.

WRA result and score, for example "reject (18)".  NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ.  "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
10 (15 CD) (Reject)

Comments on WRA score  (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ.  (Discussed in section 3.2.1 of the evaluation criteria report. In Gaddum, and available from several nurseries on web, also used in district planting schemes.)
Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level 2
NZ Nursery register 2004/05 genus level only
27
NZ Nursery Register 1997/98 genus level only
30
NZ Nursery register 1991/92 genus level only
30

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil
Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Not known to be naturalised in New Zealand. Potentially could invade frost-free wetlands and heathlands, tolerant of very poor soils, salinity, drought and flooding.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Difficult to control without encouraging recolonisation.

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

—

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

All parts of the plant can cause contact dermatitis.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Potential threat to suitable habitats in coastal northern New Zealand.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Promoted as a species tolerant of difficult soils (salinity, drought prone etc.). Plant produces essential oils.

Include in NPPA?

No - needs more information. Will be considered for next review round of Accord

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Possibly look for regeneration/escape from cultivated sites.

Notes from TAG meeting


Menyanthes trifoliata

Common names

Bogbean

Synonyms

Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

Yes, eradicated from known field sites but maintained in cultivation (NIWA secure facilities).
Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, escaped from garden pond in Darfield, Canterbury.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Formed dense mat over the garden pond site. Could invade peatland waterbodies and displace native species.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
5 (Evaluate)                                AWRAM (45)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Presumably introduced as an ornamental pond plant.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
–
NZ Nursery register 2004/05 genus level only
–
NZ Nursery Register 1997/98 genus level only
–
NZ Nursery register 1991/92 genus level only
–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Commonly recommended as an ornamental pond plant overseas.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?:   Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Not known from New Zealand. Potentially could invade shallow peaty waterbodies anywhere within New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Unknown, New Zealand plants were physically removed. Viable seed have been produced in cultivation. These appear to have long viability.

National eradication i.e. DOC, MAF
eradicated

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No
Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

*Nil*

Any known impact on human health?
*No known harm.*

**Reasons for inclusion in NPPA.** A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

*Erected from New Zealand field sites, retain UO status*

**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

*None, less invasive marginal plants available*

**Include in NPPA?**
*YES - high priority*

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
*If eliminated from all potential propagule sources then same status as sp. not recorded from New Zealand.*

**Notes from TAG meeting**
*Nil*

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**Miscanthus nepalensis**

**Common names**
*Himalayan fairy grass*

**Synonyms**
*Nil*

**Is the plant species present in NZ?** (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
*Yes*

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
*Yes (Fl. NZ vol V). Northern NZ.*

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
*n/a*

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
*Primarily colonises open areas such as cliffs and riverbeds and can dominate some sites for 20-30 years.*

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
*reject (14)*

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
*Nil*

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report.
*no records of this species being sold, another species of Miscanthus (M.sinensis) is popular*
Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only
38

NZ Nursery Register 1997/98 genus level only
14

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ [i.e. garage sale, overseas, personal observations]. Include comments on appeal as a cultivated plant

Never seen this for sale although probably has some appeal as similar to M.sinensis only smaller. Possibly for sale under an incorrect label as there are sometimes difficulties with the labelling of grasses.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Mostly reported form northern NZ but often inland. I have seen it wild in the Marlborough Sounds. Probably has much greater potential distribution. Not yet really common anywhere.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Uncertain, most grasses can be controlled with herbicides such as haloxyfop but no specific info on this species

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Doc weed-led in Northland.

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Limited information but appears invasive in one region (Bay of Plenty) and spreading in northland and elsewhere. Currently restricted in distribution. Being actively controlled in Northland. While this species is able to naturally disperse it is unlikely to reach new regions unless distributed by people.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
No evidence that it is in the nursery trade at present.

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Priority low because of lack or evidence that it is in the nursery trade. However grasses are increasing in popularity and I'm uncertain why this one isn't available, so I would recommend caution on this.

Notes from TAG meeting
Nil

Myoporum insulare (plus hybrids)

Common names
Tasmanian ngaio

Synonyms
Nil

Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes. North and South islands in coastal areas (Flora IV).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Yes. Is replacing M. laetum in some areas and is hybridising with M. laetum. Spreading and colonising on coastal/sanddunes habitats.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject 20

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Yes, sold in the nursery trade.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
—

NZ Nursery register 2004/05 genus level only
92

NZ Nursery Register 1997/98 genus level only
82

NZ Nursery register 1991/92 genus level only
60

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil
Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Planted widely and extensively and therefore has the potential to become very widespread from these plantings.
Should be on NPPA so its spread through plantings is not allowed.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
spray and handweeding.

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
—

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
M. insulare is considered to be very poisonous to humans, and to other animals, and Jerrett & Chinnock (1983) reported outbreaks of photosensitisation and deaths in cattle due to ingestion of this plant.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Replacing the indigenous M. laetum and hybridising with that species. Need to limit spread from planting by banning the species.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none.

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Myrica faya

Common names
Fire tree, Candle-berry myrtle

Synonyms
Morella faya

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes (specimens in Allan herbarium)
Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

none reported

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands) Established and invasive in Hawaii, most islands, particularly upland areas. Native to Macaronesia (Madeira, Canary Islands, other Macaronesian species grow well throughout NZ eg Echium candicans).

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Highly invasive in Hawaii where it supresses regeneration (eg on old lava flows), changes the nutrient regime (N-fixer) and facilitates the establishment of other weeds. Forms dense canopy excluding other species, possibly allelopathic. (info from UO declaration)

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject (12)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

No evidence for sale (currently banned from sale)

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

–

NZ Nursery register 2004/05 genus level only

–

NZ Nursery Register 1997/98 genus level only

–

NZ Nursery register 1991/92 genus level only

–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant


Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Few records of this species in NZ suggesting that it is very restricted at present. Limited information on potential distribution but likely to grow in areas where it doesn't currently occur.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

uncertain, but because it changes nutrient regimes, damage can be difficult to reverse even if plants are killed.

National eradication i.e. DOC, MAF

–

RPMS YES/NO refer to master document

–
NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Species currently not naturalised and very restricted in NZ, serious invasive weed overseas in an area with similar environments (NZ has many weeds in common with Hawaii). Preventative approach, more likely to be effective.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Uncertain whether it would be sold if this was permitted. Not certain that this specie is still present in NZ as herbarium specimens were from 1950s and 60s.

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
If this species is considered to be present then it should be on the NPPA, uncertainty over whether it is still present is the main reason against including it

Notes from TAG meeting
Determine whether it is present in NZ. Still has UO status.

Myricaria germanica

Common names
false tamarisk

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, but confined to 3 braided rivers in the eastern South Island

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Smothers small native plants in braided riverbeds
WRA result and score, for example "reject (18)". NOTE: “reject” means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject (6)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

At the low end of reject because no history of weediness elsewhere and no noxious features

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. No evidence, and origin in N.Z. unknown

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

- NZ Nursery register 2004/05 genus level only
- NZ Nursery Register 1997/98 genus level only
- NZ Nursery register 1991/92 genus level only
- Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
  Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Could grow in all the eastern South Island braided rivers and possibly in other regions

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Unknown

National eradication i.e. DOC, MAF

- RPMS YES/NO refer to master document
- NPPA YES/NO
  No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

DoC weed-led

Any known impact on human health?

No known harm

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

The species currently has a limited distribution and spread to further catchments would be largely dependant on human activities, including being purposefully grown. So this possibility should be eliminated.
Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Only that it is not known to be grown on purpose at this time

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Myriophyllum aquaticum

Common names
Parrot’s feather, thread of life, Brazilian watermilfoil

Synonyms
Enydia aquatica, Myriophyllum brasiliense, Myriophyllum proserpinacoides

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, locally abundant in North Island, scattered in northern South Island.

Has the plant species formed self-sustaining populations in New Zealand?
Yes, invasive throughout New Zealand range

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts?
Invasive in fertile wetlands, flowing and still waters, impacting biodiversity and promoting flooding.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
17(17 P&C) (Reject)                 AWRAM (56)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Was sold in New Zealand until inclusion on national surveillance plant pest list 1995?). Possibly still spread by hobbyist gardeners.

Gaddum “The Plant Finder” (trade version 2001) - listing to species and cultivar level
–

NZ Nursery register 2004/05 genus level only
–

NZ Nursery Register 1997/98 genus level only
2
NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Widespread in many North Island areas, absent from most of South Island. Could be problematic in most nutrient-rich water bodies in lowland New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Difficult to control, both through lack of effective methods and its aquatic habitat.

National eradication i.e. DOC, MAF

Yes

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

DoC weed-led - BOP, Westland

Any known impact on human health?

No known direct harm to human health, but may indirectly affect human well-being. Populations of this plant may be quite dense, sometimes as floating mats that have been uprooted, often choking waterways and impeding navigation and recreational activities.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Only spread by human activities, either deliberate or accidental (e.g. contaminated drainage machinery). NPPA inclusion reduces long-distance spread.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None, less invasive marginal plants available

Include in NPPA?

YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil

Myriophyllum spicatum
Common names

Eurasian watermilfoil

Synonyms

Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

No

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

No

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

Widely naturalised and invasive in temperate North America, native to Europe, Asia and North Africa. Could invade many New Zealand water bodies.

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)

Extremely invasive, potential to disrupt hydro-electric power generation, drainage, irrigation and recreational activities and displace other vegetation from much of submerged range (to ~10 m).

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

20 (Reject) AWRAM (69)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. (Discussed in section 3.2.1 of the evaluation criteria report. Not known from New Zealand, but is commonly distributed as a pond plant overseas)

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Not known from New Zealand. Could be problematic in most water bodies in New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Difficult to control, both through lack of effective methods and its aquatic habitat.

National eradication i.e. DOC, MAF
No

RPMS YES/NO refer to master document

—

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?
No known direct harm to human health, but may indirectly affect human well-being. M. spicatum impacts power generation and irrigation by clogging dam trash racks and intake pipes. Stagnant water created by M. spicatum mats provides good breeding grounds for mosquitoes. Mats of this plant also interfere with recreational activities such as swimming, boating, fishing and water skiing.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Not in New Zealand, retain UO status

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None, less invasive submerged plants available

Include in NPPA?

No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil

Najas guadalupensis

Common names

Southern naiad, southern waternymph

Synonyms

Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

No

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

No

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

Native to all states of USA, South and Central America. Could invade many New Zealand water bodies.
Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (e.g. conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Invasive species, capable of colonising recently disturbed sites (e.g. weed control for other species) and displacing native species.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

14 (Reject) AWRAM (54)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. (Discussed in section 3.2.1 of the evaluation criteria report.)

Was reported as present in New Zealand aquaria but no evidence to date. The commonest Najas sp. in the overseas trade.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Not known from New Zealand. Could be problematic in many water bodies in New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Difficult to control, both through lack of effective methods and its aquatic habitat.

National eradication i.e. DOC, MAF
No

RPMS YES/NO refer to master document

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
No known direct harm to human health, but may indirectly affect human well-being. Najas guadalupensis can form dense colonies in shallow water and hinder swimming, fishing, boating, and other forms of water contact recreation. It also impedes water flow in drainage and irrigation canals.

**Reasons for inclusion in NPPA.** A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

*Not in New Zealand, retain UO status*

**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

*None, less invasive submerged plants available*

**Include in NPPA?**

*No*

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

*Nil*

**Notes from TAG meeting**

*Nil*

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**Najas marina**

**Common names**

Holly leaved naiad, holly leaved water nymph, spiny naiad

**Synonyms**

*Nil*

**Is the plant species present in NZ?** (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

*No*

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence)

*No*

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

Native to temperate and tropical America, Europe, Asia, Africa and Australia. Could invade many New Zealand water bodies, especially slightly saline sites.

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Invasive species, capable of colonising recently disturbed sites (e.g. weed control for other species) and displacing native species, especially slightly saline sites, currently not impacted by alien submerged weeds.

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

15 (Reject) AWRAM (57)

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

*Nil*

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report. Was reported as present in New Zealand aquaria but no evidence to date. Sold in the overseas trade.
Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Not known from New Zealand. Could be problematic in most brackish water bodies in New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Difficult to control, both through lack of effective methods and its aquatic habitat.

National eradication i.e. DOC, MAF

No

RPMS YES/NO refer to master document

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

The internodes of the stem usually have conspicuous, brownish, prickly teeth which can cause mechanical injury, sometimes followed by secondary infection. It may also directly affect human well-being, as it may hinder swimming, fishing and boating.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Not in New Zealand, retain UO status

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None, less invasive submerged plants available

Include in NPPA?

No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting
Nassella - ALL species

Common names

Synonyms
Nil

Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p79, Vol V

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
?

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (e.g. conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Economic: Potential for large pastoral production losses, particularly in drought-prone pastures, due to low palatability.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
—

NZ Nursery register 2004/05 genus level only
—

NZ Nursery Register 1997/98 genus level only
—

NZ Nursery register 1991/92 genus level only
—

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
20 suppliers in RHS PF. 3 of N. cernua, 1 each of N. lepida and N. pulchra and 15 of N. trichotoma

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
n/a

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
Nassella spp. produce distinctive sharp seeds that causes injury to stock and downgrades wool, skins and hides. These seeds can damage pelts, ruin sheep fleeces, blind livestock, and can penetrate the skin and hives and move through to the underlying muscle and cause abscesses. The same threat is posed to humans, which could suffer mechanical injury and subsequent secondary infection.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
WRA = 15-24 (Reject in all cases). None of the species has spread to fully occupy its potential range in NZ and one (N. tenellissima) has high ornamental value in Europe with potential for being sold in NZ. Banning sale nationally of all Nassella spp will support current RPMSs that include these species.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Nassella neesiana

Common names
Chilean needle grass

Synonyms
Stipa neesiana

Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p80, Vol V

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
ditto

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (16)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
—

NZ Nursery register 2004/05 genus level only
—

NZ Nursery Register 1997/98 genus level only
—

NZ Nursery register 1991/92 genus level only
—

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Roadsides and pastures. Potential unknown.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
—

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
—

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
Nassella spp. produce distinctive sharp seeds that causes injury to stock and downgrades wool, skins and hides. These seeds can damage pelts, ruin sheep fleeces, blind livestock, and can penetrate the skin and hives and move through to the underlying muscle and cause abscesses. The same threat is posed to humans, which could suffer mechanical injury and subsequent secondary infection.

**Reasons for inclusion in NPPA.** A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

ditto

**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none

Include in NPPA?

**YES - high priority**

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

**Notes from TAG meeting**

Nil

**Nassella tenuissima**

**Common names**

*Mexican feather grass*

**Synonyms**

*Stipa tenuissima*

**Is the plant species present in NZ?** (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

Yes, p81, Vol V

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

*Fully naturalised.* **N.: Auckland and Hamilton cities.**

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

ditto

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

*Reject (24)*

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report.

Nil

**Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level**
NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
No suppliers in RHS PF (but 104 suppliers of Stipa tenuissima) Potential unknown.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
A garden escape; cultivated sporadically in both Islands.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
Nassella spp. produce distinctive sharp seeds that causes injury to stock and downgrades wool, skins and hides. These seeds can damage pelts, ruin sheep fleeces, blind livestock, and can penetrate the skin and hives and move through to the underlying muscle and cause abscesses. The same threat is posed to humans, which could suffer mechanical injury and subsequent secondary infection.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
ditto

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
**Nassella trichotoma**

**Common names**
nassella tussock

**Synonyms**
Nil

**Is the plant species present in NZ?** (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p82, Vol V

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Fully naturalised. *N.*: scattered small infestations from Kaitaia to Coromandel Peninsula, and on east coast to Hastings; *S.*: east coast from Marlborough to Central Otago.

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

*ditto*

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (15-16)

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report.
Nil

**Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level**

—

**NZ Nursery register 2004/05 genus level only**

—

**NZ Nursery Register 1997/98 genus level only**

—

**NZ Nursery register 1991/92 genus level only**

—

**Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ** (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

**Known vs potential distribution in NZ (abundance in New Zealand)** (Discussed in section 3.2.2 of the evaluation criteria report.)

Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

- National eradication i.e. DOC, MAF
- RPMS YES/NO refer to master document
- NPPA YES/NO
  No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
Nassella spp. produce distinctive sharp seeds that causes injury to stock and downgrades wool, skins and hides. These seeds can damage pelts, ruin sheep fleeces, blind livestock, and can penetrate the skin and hives and move through to the underlying muscle and cause abscesses. The same threat is posed to humans, which could suffer mechanical injury and subsequent secondary infection.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
ditto

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Nephrolepis cordifolia

Common names
Tuber ladder fern

Synonyms
Nil

Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes
Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

Yes. North Island, more common in north and less so in southern part of North Island (Flora IV).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Yes. Establishes from garden plant escapes into a variety of habitats such as banks, among rocks, and along tracks. Often establishes in already disturbed habitats.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject 21

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Yes, although banned in Auckland occasionally still sold in the nursery trade.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

1

NZ Nursery register 2004/05 genus level only

18

NZ Nursery Register 1997/98 genus level only

24

NZ Nursery register 1991/92 genus level only

33

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Will continue to establish naturalised populations from cultivated plants, therefore need to restrict is distribution from nurseries.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

spraying and handweeding.

National eradication i.e. DOC, MAF

–

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Impact on native and naturalised ecosystems. (May be difficult to control??)

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None.

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

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**Nuphar lutea**

Common names
Yellow water lily, spatterdock, cow lily, brandybottle

Synonyms
Nuphar luteum, Nymphaea lutea

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, restricted to one Hawkes Bay lake and adjacent dam, two cultivated Nuphar sites, but the species is possibly different

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, invasive in Horseshoe Lake, with viable seed set.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
At the one field site its species displaced all other aquatic species from the shoreline to 2 m deep.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
12 (Reject) AWRAM (43)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. The taxonomy of Nuphar is complex, with either one species or several recognised (N. American plants belonging to 8 spp. none of which are N. lutea (um)). Some plants are/were offered for sale.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

—

NZ Nursery register 2004/05 genus level only

—

NZ Nursery Register 1997/98 genus level only

—

NZ Nursery register 1991/92 genus level only

—

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Few known occurrences. Could be problematic in most nutrient-rich water bodies in lowland New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Difficult to control, both lack of effective methods and its aquatic habitat.

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nearby eradicated at field site (HBRC)

Any known impact on human health?

No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Only spread by deliberate human planting and subsequent movement by water. NPPA inclusion would prevent spread to new catchments.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None, less invasive waterlilly-type plants available

Include in NPPA?

YES - high priority
If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting
Another entity that needs looking into for future

Nymphaea mexicana

Common names
Mexican waterlily, banana waterlily

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, scattered North Island localities

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, invasive throughout New Zealand range

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Invasive in shallow water bodies, including slow flowing water. Smothers other plants and could disrupt irrigation/drainage/ recreational activities.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
14 (Reject) AWRAM (47)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Waterlilies (genus Nymphaea) have been hybridised for over 100 years with a complex mixture present in New Zealand. Yellow flowered species with vertical rhizomes and long spreading stolons are very invasive and are the prodigy of (or reverted to) N. mexicana.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
1

NZ Nursery register 2004/05 genus level only
–

NZ Nursery Register 1997/98 genus level only
–

NZ Nursery register 1991/92 genus level only
–
Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Few known occurrences. Could be problematic in marginal areas (< 2m) of most water bodies in New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Difficult to control, both through lack of effective methods and its aquatic habitat. Seeds occasionally produced which may have long viability.

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Weed-led control in Waitakere Wetland (WCC/ARC) and Forest Lake (HCC)

Any known impact on human health?

No known direct harm to human health, but may indirectly affect human well-being as it can block waterways.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Only spread by deliberate human planting and subsequent movement by water. NPPA inclusion would prevent spread to new catchments.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Probable confusion with other yellow flowered Nymphaea cvs which aren’t as invasive (but probably have N. mexicana in their parentage).

Include in NPPA?

YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Identification training requirements

Nymphoides geminata

Common names

Marshwort, Entire marshwort

Synonyms

Nil
Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, scattered North and South Island localities

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, invasive throughout New Zealand range

If no to previous question, what potential does the species have to establish self-sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals).
Invasive in shallow water bodies, including slow flowing water. Smothers other plants and could disrupt irrigation/drainage/ recreational activities.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
9 (18 PAW) (Reject) AWRAM (46)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. (Discussed in section 3.2.1 of the evaluation criteria report. Was sold up to 1980's but gazetted as a Class B noxious plant in 1988, banning sale.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
—
NZ Nursery register 2004/05 genus level only
—
NZ Nursery Register 1997/98 genus level only
—
NZ Nursery register 1991/92 genus level only
—
Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Most sites now eradicated. Could be problematic in marginal areas (< 2m) of most water bodies in New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Difficult to control, both through lack of effective methods and its aquatic habitat.

National eradication i.e. DOC, MAF
—
RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Eradicated from most (possibly all) field sites.

Any known impact on human health?
No known direct harm to human health, but may indirectly affect human well-being as it can impede drainage, block waterways and degrade water quality.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Only spread by deliberate human planting and subsequent movement by water. NPPA inclusion would prevent spread to new catchments.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None, less invasive waterlily-type plants available

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Nymphoides peltata

Common names
Fringed water lily

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, one field site in Auckland now eradicated, but maintained in cultivation (NIWA secure facilities).

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, invasive at the one known field site.

If no to previous question, what potential does the species have to establish self-sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Invasive in shallow water bodies, including slow flowing water. Smothers other plants and could disrupt irrigation/drainage/ recreational activities.
WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

19 (17 PAW) (Reject) AWRAM (58)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Was sold up to 1980's but gazetted as a Class B noxious plant in 1988, banning sale.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

--

NZ Nursery register 2004/05 genus level only

--

NZ Nursery Register 1997/98 genus level only

--

NZ Nursery register 1991/92 genus level only

--

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Not known from New Zealand. Could be problematic in marginal areas (< 2m) of most water bodies in New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Difficult to control, both through lack of effective methods and its aquatic habitat. Seeds produced which have long viability.

National eradication i.e. DOC, MAF

--

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Eradicated from one known field site.

Any known impact on human health?

No known direct harm to human health, but may indirectly affect human well-being as it can impede drainage, block waterways and degrade water quality.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Initially spread by deliberate human planting. However seed are adapted for spread by ducks so important to prevent initial spread. NPPA inclusion would prevent this.
**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None, less invasive waterlily-type plants available

**Include in NPPA?**

*YES* - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

*Nil*

**Notes from TAG meeting**

*Nil*

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**Ochna serrulata**

**Common names**

*mickey mouse plant*

**Synonyms**

*Nil*

**Is the plant species present in NZ?** (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

*Yes*

**Has the plant species formed self-sustaining populations in New Zealand?** *(Discussed in section 2.1 of the evaluation criteria report. State where/ evidence)*

Yes. Prefers semi shade of the understorey of forests where it forms a dense monoculture that prevents regeneration of native species. It tolerates wet soil but also withstands droughts. *(NZ Plant Conservation Network website.)*

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** *(i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)*

*n/a*

**Does the plant have the potential to cause adverse impacts?** *(Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)*

Yes, it can compete with native plants in forested habitats.

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

*reject 20*

**Comments on WRA score** *(Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)*

*Nil*

**Objective evidence it has been or is deliberately distributed in NZ.** *(Discussed in section 3.2.1 of the evaluation criteria report.)*

*Nil*

**Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level**

*1*

**NZ Nursery register 2004/05 genus level only**

*—*

**NZ Nursery Register 1997/98 genus level only**

*—*
NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Spreading rapidly since the first collections were made in the mid-1990's. Spreading from cultivated plants and already established naturalised populations.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

—

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

—

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Could have a major impact on native forsts.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None.

Include in NPPA?

YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil

Osmunda regalis

Common names

Royal fern
Synonyms
Nil

Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, recorded as naturalised in 1890, spreading in Waikato/BOP and scattered elsewhere in North Island

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, invasive in many sites

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Its dense growth habit is a threat to indigenous species including endangered biota and habitat quality

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
5 (Evaluate)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Was sold but should have been banned after added to NPPA.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
2

NZ Nursery register 2004/05 genus level only
–

NZ Nursery Register 1997/98 genus level only
–

NZ Nursery register 1991/92 genus level only
–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Grading?: Widely spread, common, Nth Island, Sth Island, Regions? Habitats?
Locally abundant in Waikato/BOP, sparse or absent elsewhere. Could be a major weed of peatlands throughout New Zealand, especially after disturbance events such as fire.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Control currently being evaluated. Re-invasion of treated areas from spores is likely.

National eradication i.e. DOC, MAF
–

RPMS YES/NO refer to master document
Yes
NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
DoC weed-led on Great Barrier Island and Northland.

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Some spread by human activities with subsequent spread, primarily by wind dispersed spores (viable for one week) occurring where the plant is well naturalised. NPPA inclusion reduces long-distance spread to regions not yet invaded (e.g. South Island).

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None, native ferns (tree ferns etc.) provide good substitute plants. Present in New Zealand as a naturalised plant for over 100 years, present in Waikato at least since 1950's.

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Panicum maximum

Common names
Guinea grass, green panic, buffalo grass

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p560, Vol V

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Fully naturalised.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Shade tolerant and could threaten forestry.
WRA result and score, for example "reject (18)". NOTE: "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

\[\text{Panicum maximum var. jacq Reject (6); var trichoglume Reject (16)}\]

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

\[\text{Nil}\]

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

\[\text{Nil}\]

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

- NZ Nursery register 2004/05 genus level only
- NZ Nursery Register 1997/98 genus level only
- NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ [i.e. garage sale, overseas, personal observations]. Include comments on appeal as a cultivated plant

\[\text{No suppliers in RHS PF, but 27 of other species of Panicum, Potential unknown.}\]

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

\[\text{n/a}\]

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

- National eradication i.e. DOC, MAF
- RPMS YES/NO refer to master document
- NPPA YES/NO

\[\text{No}\]

Notifiable organism

\[\text{No}\]

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

\[\text{Nil}\]

Any known impact on human health?

\[\text{No known harm.}\]

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

\[\text{WRA = 6-16 (Reject). Currently very limited in distribution in NZ, spreading slowly in Auckland about 100 m in seven years despite being a prolific seeder and being dispersed by birds and wind. No ornamental value evident, although other species in the genus are sold in Europe.}\]
**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none

**Include in NPPA?**
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting
Nil

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**Passiflora caerulea**

**Common names**
blue passionflower

**Synonyms**
Nil

**Is the plant species present in NZ?** (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

yes

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

Yes, scattered throughout and forming populations in some localities. Flora IV and herbarium records.

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Yes. Vigorous and rampant vine that smothers vegetation it climbs on, including native forest and naturalised plant communities.

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject 22

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report.

Nil

**Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level**

–

**NZ Nursery register 2004/05 genus level only**

47

**NZ Nursery Register 1997/98 genus level only**

26
NZ Nursery register 1991/92 genus level only

31

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Occurs throughout NZ and is likely to continue to spread.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

—

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

—

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

Toxic if eaten, and may cause skin irritation.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Continues to be a major conservation and ecological weed and should be on NPPA to limit its spread.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None

Include in NPPA?

YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil

Passiflora edulus

Common names

edible passionfruit

Synonyms

238
Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

**Yes**

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

**Yes.** scattered throughout, but apparently not forming large populations (Flora IV and herbarium records).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

**N/a**

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

**Yes.** Vigorous and rampant vine that smothers vegetation it climbs on, including native forest and naturalised plant communities.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

**Reject 22**

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

**Nil**

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

**Nil**

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

22

NZ Nursery register 2004/05 genus level only

47

NZ Nursery Register 1997/98 genus level only

26

NZ Nursery register 1991/92 genus level only

31

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

**Nil**

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

*Limited spread and abundance at present, although it does occur from Kermadec Islands south to Taranaki and Gisborne.*

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

**—**

National eradication i.e. DOC, MAF

**No**

RPMS YES/NO refer to master document

**—**
NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
Edible fruit, no known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group. Usually only a few plants (sometimes only 1) at each site and does not appear to be as much on a threat as the other species.

Include in NPPA?
No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Widely but locally established as only a few plants, not forming large naturalised populations

Notes from TAG meeting
Nil

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**Passiflora mixta**

Common names
Northern banana passionfruit

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/evidence).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)
Yes. Vigorous and rampant vine that smothers vegetation it climbs on, including native forest and naturalised plant communities.
WRA result and score, for example "reject (18)". NOTE: “reject” means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject 20

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

—

NZ Nursery register 2004/05 genus level only

47

NZ Nursery Register 1997/98 genus level only

26

NZ Nursery register 1991/92 genus level only

31

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Not common and does not appear to be actively spreading.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

—

National eradication i.e. DOC, MAF

No

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

Edible fruit, no known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Limited distribution and does not appear to be as much on a threat as the other species.
Include in NPPA?
No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Mistaken ID. Majority of plants now called P. tarminiana

**Passiflora tarminiana**

Common names
Northern banana passionfruit

Synonyms
Most of Passiflora mixta in Fl NZ vol IV

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes. Throughout NZ, particularly the North Island (Heenan & Sykes 2003, NZJB 41, p. 217-221).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Yes. Vigorous and rampant vine that smothers vegetation it climbs on, including native forest and naturalised plant communities.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject 21

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
--

NZ Nursery register 2004/05 genus level only
47

NZ Nursery Register 1997/98 genus level only
26

NZ Nursery register 1991/92 genus level only
31
Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

**Known vs potential distribution in NZ (abundance in New Zealand)** (Discussed in section 3.2.2 of the evaluation criteria report.)

Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

*Occurs throughout NZ and is likely to continue to spread.*

**Ease of control of the plant as a species** (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

--

National eradication i.e. DOC, MAF

--

RPMS YES/NO refer to master document

--

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

*DoC weed-led*

**Any known impact on human health?**

*Edible fruit, no known harm.*

**Reasons for inclusion in NPPA.** A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

*Continues to be a major conservation and ecological weed and should be on NPPA to limit its spread.*

**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none

**Include in NPPA?**

YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil

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**Passiflora tripartita (all subspecies)**

**Common names**

*Banana passionfruit*

**Synonyms**

*Passiflora mollissima*

**Is the plant species present in NZ?** (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).  
Yes. Throughout NZ, particularly the South Island (Heenan & Sykes 2003, NZJB 41, p. 217-221).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)  
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.  
Yes. Vigorous and rampant vine that smothers vegetation it climbs on, including native forest and naturalised plant communities.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.  
reject 21

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)  
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.  
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level  
--

NZ Nursery register 2004/05 genus level only  
47

NZ Nursery Register 1997/98 genus level only  
26

NZ Nursery register 1991/92 genus level only  
31

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant  
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)  
Gragnings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats? Occurs throughout NZ and is likely to continue to spread.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)  
--

National eradication i.e. DOC, MAF  
--

RPMS YES/NO refer to master document  
Yes

NPPA YES/NO  
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
DoC weed-led

Any known impact on human health?
Edible fruit, no known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Continues to be a major conservation and ecological weed and should be on NPPA to limit its spread.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Pennisetum alopecuroides

Common names
Chinese Pennisetum

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p573, Vol V

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
ditto

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (15)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil
Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only
8

NZ Nursery Register 1997/98 genus level only
25

NZ Nursery register 1991/92 genus level only
5

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

181 suppliers in RHS PF. Potential unknown.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Tracks, creek beds, coastal sand, wet low lying ground near swamps.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Well controlled by glyphosate.

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
ditto

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none

Include in NPPA?

YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil
Notes from TAG meeting
Nil

**Pennisetum latifolium**

**Common names**
Uruguay pennisetum

**Synonyms**
Nil

**Is the plant species present in NZ?** (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p575, Vol V

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
N.: North Auckland (south of Kerikeri), Auckland City, scattered in South Auckland, one record from Wanganui.

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (22)

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
 Nil

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report.
Nil

**Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level**
—

NZ Nursery register 2004/05 genus level only
8

NZ Nursery Register 1997/98 genus level only
25

NZ Nursery register 1991/92 genus level only
5

**Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ** (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
No suppliers in RHS PF. Potential unknown.

**Known vs potential distribution in NZ (abundance in New Zealand)** (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Garden escape; waste land, roadsides, pasture, damp places.
Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Well controlled by glyphosate.

National eradication i.e. DOC, MAF

–

RPMS YES/NO refer to master document

–

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

ditto

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none

Include in NPPA?

YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil

Pennisetum macrourum

Common names

African feather grass

Synonyms

Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

Yes, p576, Vol V

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence)

Fully naturalised. N.: scattered throughout; S.: near Westport and to the east from Marlborough to North and Central Otago.
If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)

dito. And was used in ornamental plantings 30-50 years ago and has often escaped and spread vigorously.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Reject (24)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

—

NZ Nursery register 2004/05 genus level only

8

NZ Nursery Register 1997/98 genus level only

25

NZ Nursery register 1991/92 genus level only

5

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

26 suppliers in RHS PF. Potential unknown.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Roadsides, grassy areas, lowland and hill country pasture, creek edges, swampy soil, sandy soil.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Well controlled by glyphosate.

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
ditto

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Pennisetum purpureum

Common names
Elephant grass

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p577, Vol V

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (10)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
1

NZ Nursery register 2004/05 genus level only
8
NZ Nursery Register 1997/98 genus level only
25

NZ Nursery register 1991/92 genus level only
5

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant last listed in RHS PF in 1999 Potential unknown.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.) Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Escape from cultivation; on roadsides.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Well controlled by glyphosate.

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
—

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
The mature leaves are described as razor sharp capable of causing mechanical injury (FAO 2005).

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
ditto

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Pennisetum setaceum

Common names
Fountain grass

Synonyms
Nil

Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p578, Vol V

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Fully naturalised. N.: North Auckland (Kaitaia, Warkworth), Auckland City, South Auckland (Pokeno, Thames, Hamilton), Wanganui; S.: Nelson (Richmond).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Formerly grown in gardens under the name Pennisetum ruppelli Steud., a synonym of P. setaceum.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (18)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
3

NZ Nursery register 2004/05 genus level only
8

NZ Nursery Register 1997/98 genus level only
25

NZ Nursery register 1991/92 genus level only
5

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
38 suppliers in RHS PF. Potential unknown.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Waste land, occasional near ornamental plantings.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Well controlled by glyphosate.

National eradication i.e. DOC, MAF
—
RPMS YES/NO refer to master document

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
ditto

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

**Pennisetum spp. (excluding P. clandestinum and P. glaucum)**

Common names
(excluding kikuyu grass and pearl millet)

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
?

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

**Economic:** Unpalatable, reduced pasture production, impaired drainage. **Environmental:** Replace native herbs and grasses within native grassland, dunes and wetlands. **Social:** Not known. **Health:** Not known. **Cultural:** Not known.
WRA result and score, for example "reject (18)". NOTE - “reject” means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

6

NZ Nursery register 2004/05 genus level only

8

NZ Nursery Register 1997/98 genus level only

25

NZ Nursery register 1991/92 genus level only

5

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ [i.e. garage sale, overseas, personal observations]. Include comments on appeal as a cultivated plant

Most of the species are highly ornamental with potential for sale in nursery trade.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

n/a

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Well controlled by glyphosate.

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

No known harm for most plants in the genus, exception being the sharp leaves of P. purpureum.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

WRA = 10-24 (Reject). All species appear to be very limited in their current distributions and given the high ornamental value of some of them, sales are likely to continue in the NZ nursery trade, potentially adding to the spread of these species
**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

*None*

**Include in NPPA?**

YES - **high priority**

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

*Nil*

**Notes from TAG meeting**

*Exclude P. clandestinum & P. glaucum*

---

**Pennisetum villosum**

**Common names**

*Feathertop*

**Synonyms**

*Nil*

**Is the plant species present in NZ?** *(if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)*

Yes, *p578, Vol V*

**Has the plant species formed self-sustaining populations in New Zealand?** *(Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).*

*Fully naturalised. N.: scattered throughout, except Wellington Province; S.: Marlborough (Blenheim, Tuamarna, lower Clarence Valley), Canterbury (Christchurch), Fiordland (Te Anau).*

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** *(i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)*

*n/a*

**Does the plant have the potential to cause adverse impacts?** *(Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)*

*Garden escape often known in horticulture as P. longistylum, not persisting vigorously*

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

*Reject (20)*

**Comments on WRA score** *(Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)*

*Nil*

**Objective evidence it has been or is deliberately distributed in NZ.** *(Discussed in section 3.2.1 of the evaluation criteria report.)*

*Nil*

**Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level**

*–*

**NZ Nursery register 2004/05 genus level only**

*8*

**NZ Nursery Register 1997/98 genus level only**

*25*
NZ Nursery register 1991/92 genus level only
5

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
36 suppliers in RHS PF. Potential unknown.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Roadsides, pasture, coastal waste land, shingle banks, gravel bars, grassy street berms, lawns.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Well controlled by glyphosate.

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
—

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
No known harm

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
ditto

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Phragmites australis

Common names
Phragmites

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, but only in Hawke's bay at present

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Yes, has potential to block waterways, including saline systems, and have severe impacts on native biodiversity

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject (15)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Was planted in Christchurch Botanical garden and has been promulgated as a sewerage treatment plant.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
–
NZ Nursery register 2004/05 genus level only
–
NZ Nursery Register 1997/98 genus level only
–
NZ Nursery register 1991/92 genus level only
–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
One individual as been trying to have the species used in sewerage treatment plants at several localities in N.Z.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Very limited distribution but the species known wide range overseas suggests the capacity to be widespread in New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Very difficult indeed to kill with herbicides and all other methods impartial.

National eradication i.e. DOC, MAF
–

RPMS YES/NO refer to master document
–
**NPPA YES/NO**
Yes

**Notifiable organism**
No

**Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.**
Nil

Any known impact on human health?
No known harm

**Reasons for inclusion in NPPA.** A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Prevent its use as an ornamental or as a sewerage treatment plant so as to minimize impacts on water ways and biodiversity.

**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Has potential as a sewerage plant, but plenty of other species available.

**Include in NPPA?**
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

**Notes from TAG meeting**
Nil

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**Pinus contorta**

**Common names**
Lodgepole pine

**Synonyms**
Nil

**Is the plant species present in NZ?** (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
yes, widespread in Central North Island and South island high country.

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)
Totally smothers the landscape of shorter native species in the montane and low alpine zones. Imposes visual pollution on natural landscapes. Impedes training of troops in tussock land
WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject (10)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Although it is "reject", the low score belies its potential impacts

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Widely planted as a forestry tree. Also planted in mountain "revegitation" areas.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

2

NZ Nursery register 2004/05 genus level only

67

NZ Nursery Register 1997/98 genus level only

81

NZ Nursery register 1991/92 genus level only

57

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Has potential to cover all the bare areas in New Zealand mountains, especially in areas of intermediate rainfall

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Intensive sheep grazing controls seedlings. Heavy doses of chemicals from helicopters will kill adult trees, with follow up. Seedlings can be pulled but adults require cutting and preferably direct poisoning as well.

National eradication i.e. DOC, MAF

Yes

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Controlled by volunteer groups on Mt Ruapehu and by New Zealand army in central North Island.

Any known impact on human health?

Pinus contorta may cause contact dermatitis, allergic bronchial asthma or rhinitis in some individuals

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Need to prevent plantations of the species being grown in the high-country
Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the
TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be
addressed by the steering group.

A valuable timber tree, but there are plenty of alternatives.

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

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**Pistia stratiotes**

**Common names**

Water lettuce

**Synonyms**

Nil

**Is the plant species present in NZ?** (If no, species will not be included in NPPA, however it can be recommended for UO status if
technically justified)

Yes, eradicated from known field sites, but maintained in cultivation (NIWA secure facilities).

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation
criteria report. State where/ evidence).

Yes, two field populations known.

**If no to previous question, what potential does the species have to establish self-sustaining populations in NZ?** (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

Unlikely to grow outside of Northland and thermally heated waters.

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief
comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise
information provided with species proposals.

Extremely invasive in tropical/subtropical conditions. In New Zealand this plant has the potential to completely displace
other vegetation, impacting on water quality, drainage and recreational activities in suitable sites.

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the
importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this
species if it was not present in NZ.

15 (20 P&C) (Reject)                AWRAM (42)

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for
the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report.

Despite being banned from sale and distribution since 1979 this plant may still be distributed by hobbyists, new sites
rarely reported.

**Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level**

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**NZ Nursery register 2004/05 genus level only**

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**NZ Nursery Register 1997/98 genus level only**
Pittosporum undulatum

Common names
Australian cheesewood, Victorian box, mock orange, sweet pittosporum, New Zealand daphne, Victorian laurel, orange pittosporum, wild coffee, Australiese kasuur, soet pittosporum

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes. Rapidly becoming far more common in northern New Zealand since it was first recorded near Kaitaia (Flora IV). See Heenan et al. (2002, NZJB 40 p. 159-160) for an updated distribution.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Yes. This species could be a major environmental disaster if it becomes widely established in forests. A very bad weed in other overseas countries. See information from ARC accompanying application to go on NPPA.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject 26

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Sold by garden centres.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
3

NZ Nursery register 2004/05 genus level only
256

NZ Nursery Register 1997/98 genus level only
210

NZ Nursery register 1991/92 genus level only
41

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Has the potential to be very common and abundant in lowland parts of New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
difficult once established since it produces abundant seed

National eradication i.e. DOC, MAF
RPMS YES/NO refer to master document

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
Chemicals known as saponins are found in this plant. These are toxic to humans but are poorly absorbed by the body, therefore causing few problems.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Potentially a very aggressive invasive species that could become well established in native forest ecosystems.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

**Plectranthus ciliatus**

Common names
Plectranthus, Blue spur flower

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
YES

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
YES - Flora IV: Nth Is - locally abundant, Sth Is - around Karamea (Shady areas in and around forest margins, plantations, hedges). UO Declaration (DoC): Naturalised range continues to expand. 25 voucher specimens of naturalised material in Auckland Herbarium - oldest record 1950 (AK 36203).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a
Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (e.g., conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)

**YES - CONSERVATION VALUES:** creeping, mat forming herb that produces long vigorous runners that spread rapidly to form dense clumps/mats in the forest understorey. These mats suppress regeneration and all other ground cover and regenerating species - similar impacts as Tradescantia (UO Declaration, DoC). It favours damp shaded habitats, especially disturbed forest, shrublands, stream sides and river systems, fernlands and wetlands. Can be drought tolerant as water is stored in the stems, and able to withstand and regrow after frost. Rooting freely from nodes along the stem - new plants can establish from small fragments.

**WRA result and score, for example "reject (18)".** NOTE - “reject” means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Reject (21) NB Not sure about palatability or toxicity of species, self compatibility or whether a persistent seed bank is formed.

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Other species in the genus also known to be invasive, e.g. P. ecklonii, P. grandis in NZ, P. amboinicus in Virgin Islands (PIER database). Quite a lot of information on impacts etc in NZ.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Locally common throughout the NI and in northern/warmer parts of the SI. Hasn't been allowed to be formally sold for over 10 years - with garden dumping the main cause of more recent human-mediated spread. Significant potential become much more widely naturalised.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Physical Control (hand pull or rake and dispose of plants; cover with weed mat and leave for 3-6 months); Chemical Control (Spray whole plant with either Escort or Glyphosate and penetrant, or Grazon; weed wipe plant with either of these herbicides). Biological Control: None available.

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document

NPPA YES/NO

No
Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
NZ: DoC weed-led control being undertaken, e.g. sites in the Bay of Plenty, Rotorua area, and Nelson/Marlborough. Was a National Surveillance Plant Pest and included on the current NPPA list.

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
WRA score Reject (21). Well recognised as an environmental weed. NPPA status should be retained.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Not currently sold so no nursery industry implications.

Notes from TAG meeting
Nil

**Polygala myrtifolia**

Common names
Sweet pea shrub, sweet pea bush, myrtle-leaf milkwort

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
YES

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
YES: Flora IV: Nth Is - common from Auckland City northwards, also est. in Tauranga, New Plymouth, Napier, and on W coast of N Wellington, Sth Is, Nelson City (mostly in coastal habitats, occasionally in scrubland). 51 voucher specimens of naturalised material in Auckland Herbarium - oldest record 1949 (AK26224).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals).
YES - CONSERVATION VALUES: ability to invade and alter the ecology of coastal areas and forest margins on the mainland and on offshore islands. Alters ecological pathways. Establishes on coastal cliffs/bluffs and shrublands inhibiting the regeneration of native species in these areas (GW). Drought tolerant.
WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Reject (22) NB Unsure re palatability and toxicity.

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Quite abit of information available re impacts, habitats invaded, ecology etc from NZ and Australia. Viable seed for at least 3 years. http://www.environment.sa.gov.au/coasts/pdfs/no34.pdf

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Was sold in the garden industry. Cultivar 'grandiflora' still available.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

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NZ Nursery register 2004/05 genus level only

--

NZ Nursery Register 1997/98 genus level only

--

NZ Nursery register 1991/92 genus level only

--

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

NZ: Because cv 'grandiflora' still sold, species could wrongly be thought of as OK and distributed by gardeners.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Frost-free northern, coastal and island sites - in the NI and warmer SI regions. Could potentially establish over a far greater area than current distribution.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Physical Control (for small infestations, hand pulling of seedlings/saplings, larger infestations can be cut with a scrub cutter and regrowth treated with a herbicide); Chemical Control (cut and paint stumps, or spray whole plants/cut over areas - range of herbicides effective, e.g. glyphosate, metsulfuron etc). Biological Control: None currently available - but investigations in OZ for potential agents.

National eradication i.e. DOC, MAF

--

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

NZ: ARC and Landcare/beachcare groups in the Auckland Region undertaking site-led control of this plant. Was a National Surveillance Plant Pest. Overseas: Also recognised as an environmental weed in Australia, e.g. Victoria - where it is becoming an increasing environmental problem. In OZ - biocontrols are being investigated.

Any known impact on human health?

No known harm.
Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report).

WRA score high Reject (22). Was on the "National Surveillance Pest Plant list and still included as a pest plant in a number of RPMS (e.g. Northland, Auckland, Waikato). Significant environmental weed in a number of habitats, particularly coastal areas. Recommend NPPA status.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Because of its inclusion in the National Surveillance Pest Plant list (NSPPL) - is not widely sold (most material offered for sale is 'grandiflora' cv). P. myrtifolia 'grandiflora' said to be a sterile cv - was not included on the NSPPL and exempt in RPMS where P. myrtifolia listed as a pest plant. NB At the least should be an Unwanted Organism.

Notes from TAG meeting
Exclude Polygala grandifolia

Polygonum perfoliatum

Common names
Devil's tail teardrop, mile-a-minute, thunder god's vine

Synonyms
Persicaria perfoliata, Ampelogennum perfoliatum

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Possibly no, one garden site in Auckland targeted for eradication

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Possibly, regrowth from seed after initial plant was removed. The plant is an annual.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
Well established as a naturalised plant in northeastern USA and Canada. Native to Asia (including India, China, Japan, Malaysia).

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals).
Capable of smothering indigenous shrubs and untillled nursery and horticultural crops.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
6 (Reject)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Probably not deliberately introduced to New Zealand.
Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only
14

NZ Nursery Register 1997/98 genus level only
23

NZ Nursery register 1991/92 genus level only
20

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

*Introduced to North America as an ornamental plant, no longer traded.*

**Known vs potential distribution in NZ (abundance in New Zealand)** (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

*Not known from New Zealand. Could be a problem in disturbed areas over much of New Zealand.*

**Ease of control of the plant as a species** (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

*Vines are relatively easy to control. Regrowth from seed needs follow-ups.*

National eradication i.e. DOC, MAF

*No*

RPMS YES/NO refer to master document

*—*

**NPPA YES/NO**

*Yes*

Notifiable organism

*No*

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

*Nil*

Any known impact on human health?

*Leaves of Polygonum spp. are described as being irritant.*

**Reasons for inclusion in NPPA.** A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

*Eradiated from New Zealand field sites, retain UO status.*

**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

*None*

Include in NPPA?

*No*

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

*Rretain UO status.*

**Notes from TAG meeting**

*Nil*
**Potamogeton perfoliatus**

Common names
Clasped pondweed

Synonyms
Nil

Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, three sites found (one pond, two commercial outlets) all eradicated, but but maintained in cultivation (NIWA secure facilities).

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, expanded to completely fill the pond site (Near Queenstown).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
Almost cosmopolitan in distribution in temperate regions (including North America, Europe and Australia).

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
A weed in Europe and Australia, smothering other submerged vegetation and obstructing human activities. Potentially able to hybridise with indigenous pondweeds.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
12 (Reject) AWRAM (55)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
After discovery in the pond site, plants were traced back to two commercial outlets (Queenstown and Christchurch).

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
—

NZ Nursery register 2004/05 genus level only
—

NZ Nursery Register 1997/98 genus level only
—

NZ Nursery register 1991/92 genus level only
—

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Widely traded as an aquarium plant internationally.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Not known from New Zealand. Could be problematic in most water bodies in New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Difficult to control, both through lack of effective methods and its aquatic habitat.

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
—

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Eradi cated from New Zealand field sites, retain UO status

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None, less invasive submerged plants available

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
If eliminated from all potential propagule sources then same status as sp. not recorded from New Zealand.

Notes from TAG meeting
Nil

Prunus serotina

Common names
Rum cherry

Synonyms
Black cherry, wild cherry, wild black cherry, chockecherry

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
yes but only one record in Fl NZ vol IV, reported wild in last 2 years in central North Island (EW proposal)

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
Also widely naturalised (and considered invasive) in Europe, especially Germany
Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

In Europe reported to replace native canopy species in plantation forests. Dense stands of seedlings reported in NZ from more open areas although considered unlikely to invade dense lowland forest. Reported to be poisonous to livestock but uncertain how much poisoning actually occurs.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject (15)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Uncertain

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level not listed

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Listed in some NZ-distributed gardening books eg Bryant 1999. Used for furniture making overseas.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Very restricted in the wild but probably widespread in cultivation (although not necessarily common). Wide native range and naturalised range overseas suggests it could grow in many more areas than it currently does.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Uncertain, but Prunus species are frequently somewhat troublesome, resprouting after stump treatment for example and often needing retreating.

National eradication i.e. DOC, MAF

--

RPMS YES/NO refer to master document

No

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Uncertain, may be some control in Tongariro/ Taupo Conservancy where this species was identified as a concern last year.
Any known impact on human health?
Ingestion of leaves, seeds or bark of *P. serotina* lead to the production of hydrocyanic acid in the digestive tract. There have been claims of children dying after ingesting an excessive number of seeds, found in the berries. Cyanide poisoning interferes with respiration and blood circulation; death is often swift. Cattle (and horses) are frequently poisoned by eating wilted *P. serotina* leaves.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Newly naturalising species, recognised invasive overseas, can spread by birds but spread to new areas likely to be primarily by deliberate human dispersal (not likely to spread from dumped garden rubbish etc).

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

May be some objections if sold although doesn't appear to be a popular species.

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
I have no direct experience of this species, only know what I have read about it.

Notes from TAG meeting
Nil

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**Pyracantha angustifolia**

**Common names**
*Firethorn, orange firethorn, yellow firethorn*

**Synonyms**
 Nil

**Is the plant species present in NZ?** (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, Northland, central North Island, and Nelson

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Competes with native shrubs in regeneration and especially on harsh sites such as road cuttings

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject (14)

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report.
Commonly seen in gardens. Was widely planted in Turing township by MOW during Tongariro power scheme.
Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

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NZ Nursery register 2004/05 genus level only
43

NZ Nursery Register 1997/98 genus level only
43

NZ Nursery register 1991/92 genus level only
40

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Bright berries still make it an attractive plant for gardeners

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Has a wide climatic range in N.Z., but never very abundant except where it has been planted in mass, at Turangi. Now spreading up the Tongariro river from these plantings. And dispersing downwards in flood waters because the seeds float.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Little information, but can be killed by cutting and poisoning.

National eradication i.e. DOC, MAF

---

RPMS YES/NO refer to master document

---

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

Very thorny plant that causes mechanical injury.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Like many bird-dispersed Rosaceous, this is slow to spread and its current distribution is nowhere near its potential because it is still planted, this should be stopped.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Planted, but plenty of substitutes.

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil
Notes from TAG meeting

Nil

Reynoutria japonica

Common names
Asiatic knotweed, German sausage, Japanese knotweed, Mexican bamboo

Synonyms
Polygonum cuspidatum, Polygonum reynoutria, Fallopia japonica

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, scattered in North Island south of Auckland and north and mid South island. Locally abundant in Westland.

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, invasive throughout New Zealand range

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Aggressive coloniser of disturbed areas, rough pasture and riparian zones.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
16 (Reject)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. (Discussed in section 3.2.1 of the evaluation criteria report.
Variety ‘Compacta’ widely grown in New Zealand, listed in Gaddum

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
1

NZ Nursery register 2004/05 genus level only
—

NZ Nursery Register 1997/98 genus level only
—

NZ Nursery register 1991/92 genus level only
—

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Possibly listed under botanical synonyms

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Scattered distribution, only common in Westland. Distribution limited by lack of dispersal ability, could become much more widespread especially in high rainfall areas.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Difficult to control due to large underground biomass.

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
This plant may cause contact dermatitis.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Mainly spread by human activities, var ‘Compacta’ still offered for sale, but limited ornamental appeal. Hybridisation between this and other Reynoutria or Fallopia species could result in seed production with further threats to spread.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
If the varieties offered for sale are likely to lead to hybridisation and seed set then upgrade to A

Notes from TAG meeting
Nil

Reynoutria japonica x sachalinensis

Common names

Synonyms
Fallopia japonica x sachalinensis, Fallopia x bohemica

Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, reported by A. Conolly (Leicester University), possibly widespread and confused with the two parent species.

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

There is every indication that this hybrid is more vigorous and persistent than either of its parents, and since it is often male-fertile it is often able to backcross with either of its parents.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

16 (Reject)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. (Discussed in section 3.2.1 of the evaluation criteria report.

Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Possibly confused with either parent species

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Scattered distribution, only common in Westland. Distribution limited by lack of dispersal ability, could become much more widespread especially in high rainfall areas.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Difficult to control due to large underground biomass.

National eradication i.e. DOC, MAF

Yes

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

No

Notifiable organism

No
Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Mainly spread by human activities, but limited ornamental appeal. Potential seed production should either parent be present

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Reynoutria sachalinensis

Common names
Giant knotweed

Synonyms
Fallopia sachalinensis, Polygonum sachalinense

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, scattered in North Island from Waihi south and north and mid South island. Locally abundant in Westland.

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, invasive throughout New Zealand range

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Aggressive coloniser of disturbed areas, rough pasture and riparian zones.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
16 (Reject)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil
Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Previously propagated and sold

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

—

NZ Nursery register 2004/05 genus level only

—

NZ Nursery Register 1997/98 genus level only

—

NZ Nursery register 1991/92 genus level only

—

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Possibly listed under botanical synonyms

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Scattered distribution, only common in Westland. Distribution limited by lack of dispersal ability, could become much more widespread especially in high rainfall areas.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Difficult to control due to large underground biomass.

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Mainly spread by human activities, with most sites adjacent to habitations, but limited ornamental appeal.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None

Include in NPPA?

YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Rhamnus alaternus

Common names
Evergreen buckthorn

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Widely scattered from Northland to Otego. Abundant on Rangitoto Island

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Forms dense thickets that prevent native species from establishing, e.g., on young soils on Rangitoto Island

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (14)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Commonly planted as a cultivar, argenteovariegata

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
2

NZ Nursery register 2004/05 genus level only
—

NZ Nursery Register 1997/98 genus level only
—

NZ Nursery register 1991/92 genus level only
—

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Has much potential to spread to new sites within its present wide range, particularly in drier coastal areas.
Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Require labor intensive cutting and poisoning

National eradication i.e. DOC, MAF

–

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
Sap of Rhamnus spp. are described as being irritant to humans.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Although it produces seed, seedlings are in fact not common. This suggest humans are important for its spread so that despite its scattered and widespread distribution, banning from sale may still contribute something to reduced rate of further spread

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
No good reason to to, as plenty of substitutes available

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Rhododendron ponticum

Common names
Rhododendron, wild rhododendron, pontic rhododendron, pontian rhododendron

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

280
Yes. South Island (West Coast) and North Island (Bay of Plenty and central North Island). Flora IV and notes with application for NPPA status.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Yes can form dense thickets in native forest.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject 23

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Yes, sold in garden nurseries.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
4

NZ Nursery register 2004/05 genus level only
108

NZ Nursery Register 1997/98 genus level only
94

NZ Nursery register 1991/92 genus level only
71

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Already established locally in some aeras (westland) and now occurring in other areas (central North Island).

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
spray

National eradication i.e. DOC, MAF
–

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
DoC weed-led

Any known impact on human health?
All parts of Rhododendron plants are poisonous to humans (and other animals) and ingestion of such plants, especially in large amounts, are expected to cause serious effects to major body organs. It can be FATAL, and it also causes nausea and vomiting, depression, difficult breathing, prostration and coma. Rhododendron can also cause contact dermatitis.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Continuing to spread and in the past has been widely cultivated. Should be restricted in cultivation so as to restrict its naturalisation.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Very difficult to control once established - allelopathic effects persist in soil long after control, and long-lived seed back

Notes from TAG meeting
Is it reasonably distinguishable from other Rhododendron?

Ricinus communis

Common names
Castor oil plant, Castor bean plant, Palma Christi, Maple weed

Synonyms
Nil

Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, HB, BOP, Auckland northwards, occasionally elsewhere.

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, only in warmer districts

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Very toxic to stock (esp horses) and humans.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
P & C wra score 6 'reject' (probably Australian), AIP wra score 5 (more information), DOC score 22.

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Low scoring, not much of a problem except for its toxicity
Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

–

NZ Nursery register 2004/05 genus level only

–

NZ Nursery Register 1997/98 genus level only

–

NZ Nursery register 1991/92 genus level only

–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Used overseas as basis for chemical and energy industries. Has been commercially grown in Texas. Important crop in India, Brazil, and China.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Could probably expand its distribution and prevalence in NZ. In Australia a problem along waterways an in waste places, where it can form dense thickets.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Individual plants easy to control by physical removal or herbicide

National eradication i.e. DOC, MAF

No

RPMS YES/NO refer to master document

–

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

The seeds (and to a much lesser extent the leaves) contain ricin, a protein, which is highly toxic in small quantities. Humans as well as cattle, dogs, goats, horses, poultry, rabbits, sheep, and swine have been poisoned after ingesting the seeds. The seed coat must be damaged to allow water to penetrate the seed interior, thus releasing the water-soluble toxin ricin. Most reported cases of animal poisoning have occurred in countries where the seed is used as food and, if improperly treated, has caused illness and death. Humans who ingested the seeds became ill and died. Two seeds can cause serious poisoning, and eight seeds is most likely fatal due to blood cells agglutinating (clumping together), fluid forming in the lungs, and liver and kidney failure. The toxin has been used for both suicide and assassination. Two to four chewed seeds can cause death in children (Cooper and Johnson 1984, Griffiths et al. 1987). Severe conjunctivitis, acute dermatitis and eczema, and attacks of bronchial asthma are amongst the ailments caused by R. communis.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Deadly poisonous seeds and leaves, but not touched by stock. Children (and one adult) have been sublethally poisoned in NZ.
Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Unpalatable to stock, not an environmental or production problem, not especially invasive. Why bother? Advertise its toxicity to kids, otherwise leave it alone.

Include in NPPA?
No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Unpalatable to stock, not an environmental or production problem, not especially invasive. Why bother? Advertise its toxicity to kids, otherwise leave it alone.

Notes from TAG meeting
Nil

Sagittaria montevidensis

Common names
Arrowhead, sagittaria, Californian arrowhead

Synonyms
Sagittaria andina, Sagittaria multinervia, Sagittaria pugioniformis var. montevidensis

Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, scattered garden sites in the North Island.

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, naturalised in Otara and Wairoa River (Auckland Region)

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
A major rice weed in California and New South Wales, also in irrigation drains and permanent nutrient rich wetlands.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

19 (25 P&C) (Reject) AWRAM (42)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Widely sold as an ornamental pond plant until 1996, when it was banned from sale under the Biosecurity Act (1993).

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only
NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Few known occurrences. Could be problematic on the margins of most nutrient-rich water bodies and wetlands in lowland New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Plants are relatively easy to control, but regrowth from seed is a major problem. Some control methods are not always acceptable in aquatic situations.

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

—

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

ARC weed-led control of all known sites

Any known impact on human health?

No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Only spread by deliberate human planting and subsequent movement by water. NPPA inclusion would prevent spread to new catchments.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None, less invasive marginal plants available

Include in NPPA?

YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil
Sagittaria platyphylla

Common names
Sagittaria, delta arrowhead

Synonyms
Sagittaria graminea var. platyphylla

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, scattered garden sites in North and northern South Island.

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, naturalised on North Shore (Auckland Region)

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
A major irrigation weed in Victoria, also in irrigation drains and permanent nutrient rich wetlands.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
24 (26 P&C, 5 DC) (Reject) AWRAM (52)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Widely sold as an ornamental pond plant until 1991, when it was banned from sale under the Noxious Plant Act (1978).

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
–
NZ Nursery register 2004/05 genus level only
1
NZ Nursery Register 1997/98 genus level only
–
NZ Nursery register 1991/92 genus level only
–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, 1st Island, 2nd Island, Regions? Habitats?
Few known occurrences. Could be problematic on the margins of most nutrient-rich water bodies and wetlands in lowland New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

286
Plants are relatively easy to control, but regrowth from seed and tubers is a major problem. Some control methods are not always acceptable in aquatic situations.

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Field site possibly eradicated (ARC) but many pond sites remain.

Any known impact on human health?
No known direct harm to human health, but may indirectly affect human well-being as S. platyphylla forms extensive infestations in shallow waterways, where it can seriously restrict water flow, increase sedimentation, and aggravate flooding.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Only spread by deliberate human planting and subsequent movement by water. NPPA inclusion would prevent spread to new catchments.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None, less invasive marginal plants available

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Sagittaria sagittifolia

Common names
Arrowhead

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, scattered garden sites in North and South Island.

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, naturalised on Coromandel Peninsula (Waikato Region)
If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands) 
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Banned from sale in USA and Australia, potentially as weedy as the other Sagittaria spp., possibly more cold tolerant, being native to Northern Europe.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

14 (Reject) AWRAM (53)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

1

NZ Nursery register 2004/05 genus level only

1

NZ Nursery Register 1997/98 genus level only

–

NZ Nursery register 1991/92 genus level only

–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Few known occurrences. Could be problematic on the margins of most nutrient-rich water bodies and wetlands in New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Plants are relatively easy to control, but regrowth from tubers is a major problem. Some control methods are not always acceptable in aquatic situations.

National eradication i.e. DOC, MAF

–

RPMS YES/NO refer to master document

–

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
**EW weed-led control of field site, Ecan control of one pond site.**

**Any known impact on human health?**
No known direct harm to human health, but may indirectly affect human well-being as S. sagittifolia is a general nuisance in the crops’ irrigation systems, drains and waterways of more than 50 countries (The Nature Conservancy 2005).

**Reasons for inclusion in NPPA.** A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Only spread by deliberate human planting and subsequent movement by water. NPPA inclusion would prevent spread to new catchments.

**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None, less invasive marginal plants available

**Include in NPPA?**
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

**Notes from TAG meeting**
Nil

**Salix cinerea**

**Common names**
Grey willow, pussy willow, grey sallow

**Synonyms**
Salix atrocinerea

**Is the plant species present in NZ?** (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, naturalised throughout New Zealand, abundant in many areas.

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, seed set and establishment from seed, invasive in many wetland types.

If no to previous question, what potential does the species have to establish self-sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Currently the greatest threat to wetlands in New Zealand, due to tall stature, tolerance of a range of soils and flooding. Major changes to wetland processes in invaded sites.

**WRA result and score, for example "reject (18)".** NOTE - “reject” means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
14 (Reject)

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil
Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Sold in nurseries throughout New Zealand, and is known to be cultivated in gardens in cooler districts of the South Island (DoC CTO).

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only
78

NZ Nursery Register 1997/98 genus level only
68

NZ Nursery register 1991/92 genus level only
63

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Locally abundant, absent from some areas. Could be problematic in most fen and swamp wetlands in New Zealand, completely altering their ecology.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Difficult to control, both through lack of effective methods preventing re-colonisation and possible contamination of aquatic habitats.

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
DoC, RC and DC weed-led (various)

Any known impact on human health?
Generally considered to be non-toxic.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Most spread by wind dispersed seed, but significant areas of New Zealand either free of this plant, or with limited populations. NPPA inclusion would prevent spread to new regions.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Bark has medicinal properties (salicylic acid), but less invasive Salix spp. are available.

Include in NPPA?
YES - medium priority
If answering D or E, please note the reason for the uncertainty here. Any other comments here.  
Nil

Notes from TAG meeting  
Nil

**Salix fragilis**

**Common names**  
Crack willow

**Synonyms**  
Nil

**Is the plant species present in NZ?** (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)  
Yes, naturalised throughout New Zealand, abundant in most areas.

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).  
Yes, spread within catchments by stem fragmentation.

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)  
n/a

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.  
Extremely invasive on waterway, lake and pond margins, displacing riparian vegetation and often obstructing access to and navigability of flowing water bodies.

**WRA result and score, for example “reject (18)”.** NOTE - “reject” means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.  
16 (Reject)

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)  
Nil

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report.  
Not commercially propagated, but could be collected and planted for erosion control/bank stabilisation (ARC application).

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level  
—

**NZ Nursery register 2004/05 genus level only**  
78

**NZ Nursery Register 1997/98 genus level only**  
68

**NZ Nursery register 1991/92 genus level only**  
63

**Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ** (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Major weed in many freshwater systems. Few catchments not impacted.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Difficult to control, both through lack of effective methods preventing re-colonisation and possible contamination of aquatic habitats.

National eradication i.e. DOC, MAF
–

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
DoC, RC and DC weed-led (various)

Any known impact on human health?
Generally considered to be non-toxic.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Only spread by deliberate human planting and subsequent movement by water. NPPA inclusion would prevent spread to new catchments.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Already spread to most available sites in New Zealand

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Salvinia molesta

Common names
Salvinia, Kariba weed

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, formerly widespread in northern North Island, with scattered sites south to Napier and also Tasman District in South Island.

Has the plant species formed self-sustaining populations in New Zealand?  (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, invasive throughout New Zealand range

If no to previous question, what potential does the species have to establish self sustaining populations in NZ?  (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
N/A

Does the plant have the potential to cause adverse impacts?  (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals. 
Extremely invasive. In New Zealand this plant has completely displaced other vegetation, impacting on water quality, drainage and recreational activities.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ. 
14 (17 PAW) (Reject)  AWRA (57)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. 
Was sold in New Zealand until 1982 (Noxious Plant Act 1978). Possibly still spread by hobbyists with several new sites reported annually.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Grading:s:  Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Most sites now eradicated. Could be problematic in most nutrient-rich water bodies in northern North Island and warmer parts of the South Island.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Relatively easy to control plants, but some methods are not always acceptable in aquatic situations.

National eradication i.e. DOC, MAF
Yes

RPMS YES/NO refer to master document

NPPA YES/NO
Yes

Notifiable organism

notifiable

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?
The plant itself poses no direct harm to human health, but indirectly affects human well-being. *S. molesta* may completely cover slow-moving or standing waterbodies, and this plant may be a catalyst of habitat alteration and shallow open water-bodies may be converted into marshes. Heavy infestations of *S. molesta* have the potential to ruin industries that depend on clean water-bodies. *Salvinia* may infest cultivated rice fields, irrigation channels or inlets to electricity generating stations, affecting the economy. If an irrigation channel is used frequently the water current may be sufficient to reduce the infestation. *Salvinia* mats block access to water bodies, hindering boat use. Both local fisheries and commercial fisheries may be affected by the restricted access to fishing spots, the decreased fish densities, and the difficulty of using long lines and nets. Local economies that rely on water transport face an even greater threat from *salvinia*; livelihoods and even the sustainability of the whole village could be ruined. Near the Sepik River, Papau New Guinea, entire villages had to be abandoned because they were entirely dependent on water transport. The lakes and lagoons beside the villages were choked with *salvinia* and water hyacinth (*E. crassipes*) and the villagers could no longer travel to trade, fish or harvest staple foods. Villagers were also isolated from health care centres, schools and markets. In Asia and Africa *salvinia* has caused a decline in the tourism, hunting, and fishing sectors (Howard and Harley 1989; Swearingen et al. 2002; McFarland et al. 2003).

*Salvinia* may increase the level and spread of some human diseases, as to the dense vegetative mats and the development of stagnant shallow water provide an ideal breeding ground for disease-carrying species of snails and mosquitoes. Finally, by blocking drainage channels and dams, *salvinia* may increase flood water levels, amplifying the amount of damage caused by floods (McFarland et al. 2003; Howard and Harley 1998).

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Mostly if not exclusively spread by deliberate human introduction. Long running national eradication programme, with almost all sites extirpated.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None

Include in NPPA?

YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil

Salvinia spp.

Common names

Synonyms

Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

No, all New Zealand material seen was *Salvinia molesta*. 
Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

No

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

The larger species (Salvinia auriculata, S.biloba and S. herzogii - all part of the same species complex) potentially have similar impacts to S. molesta

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

14 (Reject) AWRAM (48)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Not known from New Zealand, but commonly distributed as pond plants overseas

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

–

NZ Nursery register 2004/05 genus level only

–

NZ Nursery Register 1997/98 genus level only

–

NZ Nursery register 1991/92 genus level only

–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

S. auriculata offered for sale on Trademe, in process of procuring sample.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Not known from New Zealand. Could be problematic in most nutrient-rich water bodies in northern North Island and warmer parts of the South Island.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Relatively easy to control plants, but some methods are not always acceptable in aquatic situations.

National eradication i.e. DOC, MAF

No

RPMS YES/NO refer to master document

–

NPPA YES/NO

No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?
See impact for Salvinia molesta.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Not in New Zealand, suggest UO status for all Salvinia spp., except S. molesta remaining NO.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Not in New Zealand

Include in NPPA?
No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
All of the genus recommend for UO as not known in NZ except S. molesta

Schinus terebinthifolius

Common names
Christmas berry, Brazilian pepper tree

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Known as a naturalized species from one site only, in Auckland.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Well known overseas including areas with climate similar to New Zealand as a very bad weed. Establishes in disturbed sites and out-competes and displaces native species.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (18)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
High score assumes climate match with N.Z.
Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

*Widely planted as a hedge/windbreak plant and in streets*

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

9

NZ Nursery register 2004/05 genus level only

29

NZ Nursery Register 1997/98 genus level only

46

NZ Nursery register 1991/92 genus level only

46

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

*Nil*

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Only just beginning to naturalize but could become more common in the far north where climate appears more suitable. Naturalising more widely in Auckland - attracted as specimen/garden tree

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

*Can be controlled by cutting and poisoning, but dense multistemmed thickets difficult to work in.*

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

—

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

*Nil*

Any known impact on human health?

*In some people, sneezing and asthma-like reactions often occur in the proximity of the blooming plant (Morton 1969). Direct contact with the exudate from the trunk causes vesication and severe itching, the lesions resembling second-degree burns. It is also recorded that the resinous exhalation from the tree causes skin eruptions resembling those of measles or scarlet fever. This may be observed in persons resting under the tree, and in persons engaged in felling, trimming, or pruning the branches, especially while the plant is in bloom (Morton 1978). Plant may also cause eye inflammation, and is toxic if ingested.*

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

*Large source of propagates being built up by purposeful plantings. This needs to be curtailed.*

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

*Widely grown popular wind break tree.*
Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

**Schoenoplectus californicus**

**Common names**
*Californian bulrush*

**Synonyms**
*Scirpus californicus*

**Is the plant species present in NZ?** *(if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)*
Yes, naturalised on lower Waikato and Northern Wairoa Rivers, planted elsewhere

**Has the plant species formed self-sustaining populations in New Zealand?** *(Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).*
Yes, forms monocultures at both field sites.

**If no to previous question, what potential does the species have to establish self-sustaining populations in NZ?** *(i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)*
n/a

**Does the plant have the potential to cause adverse impacts?** *(Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)*

Occupies estuarine emergent zone, either previously un vegetated, or displaces indigenous sedge spp.

**WRA result and score, for example "reject (18)".** *(Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)*

9 (Reject) 
AWRAM (42)

**Comments on WRA score** *(Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)*
Nil

**Objective evidence it has been or is deliberately distributed in NZ.** *(Discussed in section 3.2.1 of the evaluation criteria report.)*
Recently spread as a wetland effluent treatment species for constructed wetlands.

**Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level**
—

**NZ Nursery register 2004/05 genus level only**
29

**NZ Nursery Register 1997/98 genus level only**
3

**NZ Nursery register 1991/92 genus level only**
—
Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Limited to two estuarine areas, could be problematic in similar habitats elsewhere in New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Control not attempted, but many methods are not always acceptable in aquatic situations.

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
—

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Only spread by deliberate human planting as a wetland treatment species and subsequent movement by water. NPPA inclusion would prevent spread to new catchments.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Native sedges provide similar nutrient removal capacity and are less invasive.

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Selaginella kraussiana

Common names
Selaginella, African club moss

Synonyms
Nil
Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

Yes, common on DOC sites especially in wetter western areas in both islands

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

Yes, and it has also naturalised in Britain, Ireland, parts of USA and Australia

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Not certain. Forms dense but thin ground cover even under dense shade. May reduce establishment of native species.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

DOC weed score 23, my wra score 18 (reject)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

OK

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
–

NZ Nursery register 2004/05 genus level only
–

NZ Nursery Register 1997/98 genus level only
–

NZ Nursery register 1991/92 genus level only
–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Promoted on websites as 'easy to grow'

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Could expand range and prevalence in NZ

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Apparently hard to achieve long term control without using soil residual herbicides

National eradication i.e. DOC, MAF
–

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes
Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Doc weed-led

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Ground cover plant of some concern in natural areas, where it may interfere with native regeneration. Could spread further. Common pot plant in past.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
May not be too serious a weed, pretty little plant

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Senecio angulatus

Common names
Cape Ivy, Climbing groundsel

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
yes (Fl, NZ vol IV)

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Forms dense infestations on open/ disturbed areas, particularly coastal

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject (14)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Uncertain about the level of seed production

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Genus sold but no info for this species. Google search listed no NZ websites referring to this species as anything other than a weed.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

—

NZ Nursery register 2004/05 genus level only

81

NZ Nursery Register 1997/98 genus level only

65

NZ Nursery register 1991/92 genus level only

72

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Seeds for sale on internet from overseas [http://www.interseeds.com/cart/plants.htm]. May have been sold for "soil conservation" in the past, doesn't have obvious appeal as a horticultural plant

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings: Widespread, common, Nth Island, Sth Island, Regions? Habitats? Widespread and locally common species throughout the NI and top half of South Is.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Uncertain - I don't have much knowledge on control of this species and nothing much provided.

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

yes

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

In 6 RPMSs, one total control but primarily aimed at surveillance/limiting spread or control in specific areas

Any known impact on human health?

Ingestion of Senecio spp., especially in large amounts, seem to be expected to cause serious effects to major body organs. Members of the genus typically contain pyrrolizidine alkaloids, many of which can cause irreversible liver damage and also lung tumours when ingested (Smith & Culvenor 1981).

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report).

Weedy species, controlled by councils.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
No evidence for sale and doesn't have obvious appeal as garden plant. Uncertain what difference banning this species would make as it is already well established in the wild and no info that it is being deliberately planted.

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
I can't see much reason to ban this, although a number of councils are concerned enough to include it in RPMSs.

Notes from TAG meeting
Nil

**Senecio mikanioides**

Common names
German ivy

Synonyms
Delairea odirata

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
yes (Fl,NZ vol IV)

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Smothering vine, mainly invading open areas and forest margins in coastal areas.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject (13)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Again unsure about level of seed production

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Genus sold but no info for this species. Google search listed no NZ websites refering to this species as anything other than a weed.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
-

NZ Nursery register 2004/05 genus level only
81

NZ Nursery Register 1997/98 genus level only
65
NZ Nursery register 1991/92 genus level only

72

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ [i.e. garage sale, overseas, personal observations]. Include comments on appeal as a cultivated plant


Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Widespread and locally common species throughout the NI and top half of South Is.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Uncertain - I don’t have much knowledge on control of this species and nothing much provided.

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

yes

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

In 7 RPMSs, one or two controlling to low levels but primarily aimed at surveillance/limiting spread

Any known impact on human health?

Ingestion of Senecio spp., especially in large amounts, seem to be expected to cause serious effects to major body organs. Members of the genus typically contain pyrrolizidine alkaloids, many of which can cause irreversible liver damage and also lung tumours when ingested (Smith & Culvenor 1981).

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Weed species, controlled by councils

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Widespread and naturalised since 1870 (FL NZ vol IV). No evidence for sale and uncertain what difference banning this species would make as it is already well established in the wild and no info that it is being deliberately planted.

Include in NPPA?

No - needs more information. Will be considered for next review round of Accord

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

More information required on distribution

Solanum carolinense
Common names
Horse nettle

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p1242, Vol IV

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Fully naturalised. N.: Tauranga, Te Puke, and Rotoehu State Forest (Bay of Plenty), Wairoa (Poverty Bay), Waiterimu and Pirongia (Waikato).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
No proposal submitted. The perennial, suckering roots of horse nettle immediately distinguish it from any other prickly Solanum spp. in N.Z. This weed could become very troublesome if it became properly naturalised, but it has fortunately remained very rare (Vol IV NZ FLORA).

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (26)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
–

NZ Nursery register 2004/05 genus level only
57

NZ Nursery Register 1997/98 genus level only
–

NZ Nursery register 1991/92 genus level only
35

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
No suppliers in RHS PF. Potential unknown.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Widely established in central Nl. Absent for S1. Pasture, waste ground.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Unknown to GWB
National eradication i.e. DOC, MAF
No

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
Species of Solanum should be treated with great caution since they all contain poisonous compounds to some extent, particularly in any green parts. All parts are toxic (i.e. vines, leaves, roots and berries) and can be LETHAL. Handling plant may cause contact dermatitis or allergic reaction. Plant has spines, which cause mechanical injury and can have an irritant effect.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
WRA = 26 (Reject), very limited current distribution, but low ornamental value.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Argument against inclusion - wouldn't be deliberately spread. Very serious weed and should maintain UO status. All sites are under control

Solanum marginatum

Common names
White-edged nightshade

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p1246, Vol IV

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Fully naturalised. N.: widespread, sometimes common; S.: locally common in Nelson, occasional in coastal areas as far S. as Banks Peninsula and Otago Harbour.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

*No proposal submitted.* White-edged nightshade soon became fully naturalised after escaping from cultivation and its propensity to form dense prickly thickets in pastures makes it a most undesirable sp. Attempts have been made to eradicate it and it is less common now than in the first half of this century. It is a very distinctive sp. easily identified by the prickly lvs with prominent chalky white undersurfaces and margins. It is still occasionally grown as an ornamental.

**WRA result and score, for example "reject (18)".** NOTE - “reject” means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

*Reject (16)*

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

*Nil*

**Objective evidence it has been or is deliberately distributed in NZ.** (Discussed in section 3.2.1 of the evaluation criteria report.

*Nil*

**Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level** —

NZ Nursery register 2004/05 genus level only

*57*

NZ Nursery Register 1997/98 genus level only

—

NZ Nursery register 1991/92 genus level only

*35*

**Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ** (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant


**Known vs potential distribution in NZ (abundance in New Zealand)** (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Depleted pastures, poor rough country, forest margins, plantations, gullies, roadsides, waste places, scrub.

**Ease of control of the plant as a species** (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Unknown to GWB

**National eradication i.e. DOC, MAF** —

RPMS YES/NO refer to master document

*Yes*

**NPPA YES/NO**

*Yes*

**Notifiable organism**

*No*

**Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.**

*Nil*
Any known impact on human health?
Species of Solanum should be treated with great caution since they all contain poisonous compounds to some extent, particularly in any green parts. All parts are toxic (i.e. vines, leaves, roots and berries) and can be LETHAL.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
WRA = 16 (Reject), very limited current distribution, but low ornamental value. While no proposal has been submitted, it a particularly undesirable plant with potential to infest pastures.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Solanum mauritianum

Common names
Wild tobacco tree, Tobacco nightshade, Woolly Nightshade, Tobacco weed, Kerosene plant, Flannel plant

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p1246, Vol IV

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Fully naturalised. N.: locally common to abundant in N. Auckland and Auckland, scattered further S. as far as Manawatu; S.: Nelson City, several localities in N.W. Nelson.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Economic: Woolly nightshade soon escaped from cultivation and is now sufficiently common to cause concern in some North Id hill country pastures because it often forms dense stands beneath which little can grow. Reduces pasture production and possibly poisons stock. Environmental: Invades native forest margins and open areas and slows native regeneration due to allelopathy. Health: Toxic to humans if berries eaten or dust inhaled. The sp. is rarely if ever planted now. It is immediately recognisable by its hairy frs, the large and conspicuous auricles on the vegetative shoots, the large entire woolly lvs and by being the only nightshade in N.Z. which forms a small tree. Woolly nightshade has been previously known as S. auriculatum in N.Z.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (13)
Comments on WRA score  (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

—

NZ Nursery register 2004/05 genus level only
57

NZ Nursery Register 1997/98 genus level only
—

NZ Nursery register 1991/92 genus level only
35

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Distributed from MW Nelson to Auckland. Locally common. 4 map refs plotted. Around plantations, forest margins, scrub, waste places and similar open situations around settlements.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Well controlled by several herbicides

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
Species of Solanum should be treated with great caution since they all contain poisonous compounds to some extent, particularly in any green parts. All parts are toxic (i.e. vines, leaves, roots and berries) and can be LETHAL. S. mauritianum is known to cause dermatitis. When clearing or knocking the plant, dust is created which will irritate the skin, eyes, nose and throat (Bull & Burrill 2002).

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
WRA = 13 (Reject). Widely spread in NI, but apparently not currently sold but does occur and is being retained in home gardens in the Auckland region. Banning sale will help support the existing RPMS(s) for this weed.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Include in NPPA?
YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
More of a nuisance species in urban areas (smell when brushed, persistent seedbank, can get very large) - in natural areas have seen regeneration beneath then - older trees eventually degenerate

Notes from TAG meeting
Nil

Sorghum halepense

Common names
Johnson grass

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, p610, Vol IV

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Fully naturalised. N.: recorded from Whangarei, Auckland City, South Auckland, Gisborne (Muriwai), Hawke's Bay (Napier, Hastings), Taranaki (Hawera), Wellington (Wanganui, Bulls, Feilding); S.: recorded from Nelson (Motueka, Nelson City), Marlborough (Oaro, south of Kaikoura), Canterbury (Leithfield, Kaiapoi). Crops (especially maize), cultivated ground, waste ground, footpaths, railway lines.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals).
No proposal submitted. Economic: Invades cultivated soils in warm temperate climates forming dense thickets through a dense rhizome system, potentially a threat to pastoral and arable farming in the warmer parts of NZ.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (25)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
—

NZ Nursery register 2004/05 genus level only
—

NZ Nursery Register 1997/98 genus level only
NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

1 supplier in RHS PF.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats? n/a

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Probably susceptible to glyphosate, but rhizomatous grasses like this are notoriously difficult to control once established.

National eradication i.e. DOC, MAF

yes

RPMS YES/NO refer to master document

NPPA YES/NO

Yes

Notifiable organism

notifiable

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

Stress (caused by drought, frost, herbicides) or mechanical damage (eg. trampling by stock) can cause the plant to produce hydrocyanic acid, particularly in the young leaves and stems of secondary growth. This can prove toxic to grazing livestock (Findlay 1975). Horses are subject to inflammation of the bladder from any Sorghum spp (Food & Agriculture Organisation of the United Nations. Obviously toxic to humans, but likelihood of ingestion is low.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

WRA = 25 (Reject). Some ornamental value- sold in Europe. Current investations in NZ are a result of unintentional human assisted transport of this species seeds.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none

Include in NPPA?

No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Argument against inclusion - wouldn't be deliberately spread. Very serious weed and should maintain UO status. All sites are under control.
Sparganium erectum

Common names
Bur reed

 Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
No

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
No

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
Native to Europe, temperate South West Asia and North America. Naturalised in Victoria and Queensland.

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Banned from sale in USA. Invasive species, capable of colonising water body margins and displacing native species.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
9 (Reject) AWRAM (44)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
 Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Not known from New Zealand, but distributed as a pond plant overseas

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
—
NZ Nursery register 2004/05 genus level only
—
NZ Nursery Register 1997/98 genus level only
—
NZ Nursery register 1991/92 genus level only
—

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Grading? Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Not known from New Zealand. Could be problematic in most water bodies in New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Difficult to control, both through lack of effective methods and its aquatic habitat.
National eradication i.e. DOC, MAF
No

RPMS YES/NO refer to master document
—

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Not in New Zealand, retain UO status

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None, less invasive emergent plants available

Include in NPPA?
No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

**Stratiotes aloides**

Common names
*Water soldier*

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
No

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
No

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
Native to Europe and Central Asia

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)
Banned from sale in USA and Australia. Invasive in shallow water bodies, including slow flowing water. Smothers other plants and could disrupt irrigation/drainage/ recreational activities.

**WRA result and score, for example "reject (18)"**. NOTE - “reject” means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

9 (Reject) AWRAM (53)

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only).

Nil

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report. *Not known from New Zealand, but commonly distributed as a pond plant overseas*

Gaddum ”The Plant Finder“ (trade version 2001) - listing to species and cultivar level

- NZ Nursery register 2004/05 genus level only
- NZ Nursery Register 1997/98 genus level only
- NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ [i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

**Known vs potential distribution in NZ (abundance in New Zealand)** (Discussed in section 3.2.2 of the evaluation criteria report.)

Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

*Not known from New Zealand. Could be problematic in most water bodies in New Zealand.*

**Ease of control of the plant as a species** (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Difficult to control, both through lack of effective methods and its aquatic habitat.

**National eradication i.e. DOC, MAF**

No

**RPMS YES/NO refer to master document**

- NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

*Leaves are edged with recurving prickles and can cause mechanical injury.*

**Reasons for inclusion in NPPA.** A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

*Not in New Zealand, retain UO status*
Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None, less invasive floating-leaved/submerged plants available

Include in NPPA?
No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Thunbergia grandiflora

Common names
Sky flower, blue trumpet vine, blue sky flower, Bengal clock vine, clock vine, mulata, sky vine

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
YES

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
NB: Not known to have naturalised in NZ. No naturalised collections in the Auckland Museum Herbarium

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
High Potential to establish naturalised populations in warm northern NZ - as evidenced from its invasiveness in other countries including Australia, tropical Sth America, he Seychelles, and Hawaii and mainland US (e.g. Florida).

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
POTENTIAL YES - CONSERVATION VALUES: Probably only in warmer northern NZ in frost free sites. Vigorous growing vine that climbs and smothers/blankets native vegetation - able to pull down host trees with the weight of the vines. ECONOMIC: In Queensland Thunbergia infestations form impenetrable colonies in pastures and headlands of canefields.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (20) NB Unsure re palatability and toxicity.

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Existing WRA Score (18). Has been sold in NZ though not yet known to be naturalised. Lots of information about its invasiveness and impacts overseas (e.g. Hawaii, Queensand). NB: Other species in the genus also recognised as an environmental weed, e.g. T. laurifolia in Australia, T. fragrans on a number of Pacific Islands.

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Sold in the garden industry. Popular for its showy pale-blue flowers, and its ability to grow over trellises, fences, buildings etc.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Overseas: Garden dumping has resulted in spread in other countries where this species has naturalised - able to regenerate from stem and root fragments and tubers. Also spread, in Queensland via movement of root pieces and tubers by earthworking equipment, and by flood waters.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Not known to have naturalised - but present as a garden plant in warm northern regions of the NI. Significant potential for this species to become a major weed in frost-free locations.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

CONTROL DIFFICULT - because of masses of tubers, root and stem fragments that can regenerate into new plants. Physical Control (cut vines at ground level to kill aerial growth, only small plants can be dug out as established plants have extensive root systems); Chemical Control (Spray whole plant or cut and apply herbicide to stems, 'Arsenal' is used in Australia with good effect, reports of glyphosate also being effective - ongoing monitoring and follow-up needed). Biological Control: None available.

National eradication i.e. DOC, MAF

Yes

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

NZ: DoC weed-led. It was left out of the ARCs Plant me Instead publications because of concerns over potential weediness. Overseas: A Declared Plant in Queensland - requiring landowners to undertake control. Invades wet forests and coastal river systems. Sparingly naturalised on Maui, Hawaii. Also naturalised in Florida and Singapore.

Any known impact on human health?

No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

WRA score Reject (20). Likely to be a major problem only in warmest northern NZ if it was to become naturalised. Inclusion on the NPPA will raise its profile as a potential environmental weed - and prevent further deliberate propagation & spread.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none
Include in NPPA?
No - needs more information. Will be considered for next review round of Accord

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Implications for nursery industry - amnesty period may be required. NB At least this species should be an Unwanted Organism.

Notes from TAG meeting
Not enough information

Toxicodendron succedaneum

Common names
rhus, Wax tree

Synonyms
Rhus succedaneum

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
none reported

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
Naturalised around the Sydney area, spreading into bushland (reproducing by seed and suckers). Ability to naturalise in NZ uncertain but warm temperate in requirements so may also naturalise here.

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Human health impacts, causes severe dermatitis on contact and smoke poisonous if burned. Ecological impacts uncertain because it isn't naturalised here and only to a limited extent in Australia. Google searches suggest this is a common cause of plant poisoning in NZ

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
Reject (8)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Limited information as it isn't naturalised and nor is there much info from Australia on naturalisation

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Listed in Gaddum (under a synonym)

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
3 listings under Rhus succedanea

NZ Nursery register 2004/05 genus level only
—

NZ Nursery Register 1997/98 genus level only
—
NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Listed in some NZ-distributed gardening books eg Bryant 1994.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Primarily cultivated in the northern half of the North Island (I think, no info supplied).

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Reported that glyphosate is used in Australia, or for manual control remove as much root as possible (Parsons and Cuthbertson). Can be difficult to remove because skin contact with the sap causes dermatitis and cannot be burned as smoke is oblic.

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

—

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

not reported

Any known impact on human health?

The exotic ornamental tree Toxicodendron succedaneum ((L.) Kuntze.) (Anacardiaceae) has been included in list of species to be evaluated for inclusion in the National Plant Pest Accord (NPPA). At this stage, this plant does not appear to be a conservation issue in New Zealand. However, T. succedaneum is of significance to public health, which is the focus of this report.

Toxicodendron succedaneum is native to Eastern Asia, and it is a relatively small deciduous tree that usually grows to approximately 8 m (Monaghan & McGaugh 2002). It has attractive autumn foliage (Monaghan & McGaugh 2002), which makes it sought after as an ornamental tree. However, T. succedaneum is as allergenic as poison ivy (T. radicans), but it seems to be less of a clinical problem than the latter since it grows as a tree rather than a creeper (Marius Rademaker, pers. comm. 2005). Signs and symptoms can occur following skin and eye contact, ingestion, or inhalation of the smoke of burning Toxicodendron plants (TOXINZ 2005), as these contain a compound known as urushiol that are extremely potent sensitizers (Rademaker & Duffill 1995a). Severe allergic contact dermatitis is perhaps the most common symptom observed. All parts of the plant including leaves, fruit and bark can cause contact dermatitis, with the sap being the most troublesome.

Symptoms appear 12 hours to 7 days after contact with the plant, and papules, bullae, and marked oedematous reactions can occur, including periorbital swelling if the face is involved (Rietschel & Fowler 1995). Exuding fluid from blisters forms new blisters that can quickly spread across the skin, and the intense swelling that develops can spread to other parts of the body (TOXINZ 2005). Facial oedema with marked peri-orbital swelling are particularly common in children (Rademaker 1999). Systemic effects include
generalised oedema, pharyngeal or laryngeal oedema, oliguria, weakness, malaise and fever (TOXINZ 2005).

Ingestion of Toxicodendron plant material leads to symptoms that occur mostly within one day (Park et al 2000). Chewing or ingestion of the leaves are likely to result in inflammation of the oral mucous membranes, and may cause severe gastroenteritis, with nausea, vomiting, diarrhoea, abdominal pain and proctitis (inflammation of the rectal mucosa) (Rietschel & Fowler 1995). Other systemic symptoms may include fever, chills, headache, and fatigue (TOXINZ 2005), and in very serious cases, hypotensive shock may occur (Park et al 2000). Ingestion of Toxicodendron plant material can also lead to systemic contact dermatitis, with symptoms as those resulting from direct skin contact (Park et al 2000).

Unfortunately, the severity of the reaction often results in mistaken diagnosis (Rademaker 1999). Aggravating the threat posed by Toxicodendron spp. is the fact that dermatitis can occur following contact with dead plant tissue, as it seems that urushiols may remain active within plant tissue for over a year following plant death. In addition, contact with smoke from burning parts of such plants is as dangerous as when Toxicodendron species are burnt, the toxin (urushiols) is present in particulate form, carried in the dust and ash in the smoke. Therefore inhalation of these particles can result in a toxic response, and mucous membranes, including those of the alimentary tract, can be affected (TOXINZ 2005). The particles may also settle on the skin causing contact dermatitis, and may lead to severe symptoms as a result of eye contact (TOXINZ 2005). Repeated exposure to the plants’ toxins also increases the severity of the symptoms (TOXINZ 2005).

It should be pointed out that the removal of Toxicodendron is not straightforward, and needs to be done with care, and as much of the skin area should be adequately covered. It seems that it is necessary to use heavy duty vinyl gloves, as rubber gloves are not very protective since the catechols in urushiol are soluble in most, if not all, varieties (Rietschel & Fowler 1995). Furthermore, contact dermatitis can still be developed by contacting tools, pets or clothing that have been in direct contact with urushiols in the last few months.

According to Dr. Marius Rademaker (Health Waikato), T. succedaneum is without doubt the most allergenic plant species in New Zealand causing contact dermatitis, and one that certainly causes public harm (pers. comm. 2005). In 1993 alone, there were at least 20 cases of allergic contact dermatitis due to T. succedaneum recorded in the Waikato Hospital (Rademaker & Duffill 1995b). There were at least 92 cases of contact dermatitis due to T. succedaneum in the Waikato region between 1982 and 1994 (Rademaker & Duffill 1995a). At least 55 cases involved youngsters (0-20 years) that were affected during outside play, most of which involved lesions to the face (Rademaker 1999). Almost all cases involving those 21 or older in contrast, occurred while gardening (Rademaker 1999).

Toxicodendron succedaneum is not yet considered a noxious weed in New Zealand, but it is classified as such in South Australia (DWLBC 2004) and New South Wales (Monaghan & McGaugh 2002) for instance, where all specimens of this plant must be destroyed. In Sydney for example, T. succedaneum is considered to be a serious weed problem where birds spread the seeds in their droppings, and many thousands of seedlings were flourishing in home gardens, in public areas and in urban bushland (Monaghan & McGaugh 2002). Toxicodendron succedaneum can also be spread by movement of garden soil containing seed, which remains viable for many years (Monaghan & McGaugh 2002).

The potential environmental impact of T. succedaneum in New Zealand is still uncertain, where there seems to be no naturalized population of this plant. In Australia, T. succedaneum was sold for many years as a garden plant, but since its declaration as a noxious weed it can no longer be offered for sale (Monaghan & McGaugh 2002). In addition, public education has assisted in leading to a considerable reduction in the number of trees in New South Wales, for instance (Monaghan & McGaugh 2002). Dr. Marius Rademaker is personally against banning such plants due to their aesthetic value, favouring instead public education (pers. comm. 2005).
In Japan and some Australian states this plant *T. succedaneum* has been withdrawn from garden centres, unlike New Zealand where it seems to remain in many such facilities (Rademaker & Duffill 1995a,b). Nonetheless, some local authorities are already taking action, and the Hamilton City Council for example, no longer plants *T. succedaneum* and has removed many such trees from public places or other areas on medical request (Rademaker & Duffill 1995b).

**Reasons for inclusion in NPPA.** A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

A particularly unpleasant poisonous plant as skin contact and burning plant material can cause poisoning (as opposed to ingestion).

**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Lots of plants are poisonous. Questions over whether we want to start banning plants just for toxicity.

**Include in NPPA?**

YES - medium priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Issues over whether we want to ban plants for their toxicity. Think this is a slightly different case from *Heracleum* which is a known invasive as well as being toxic.

**Notes from TAG meeting**

Would only be included for health reasons not due to invasiveness. Refer to Steering Group for decision

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**Tradescantia fluminensis**

**Common names**

*Wandering Jew*

**Synonyms**

*Nil*

**Is the plant species present in NZ?** (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

*yes*

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/evidence).

*Widely distributed in N.Z.*

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

*n/a*

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.)

*Well documented evidence that it prevents regeneration of most native seedlings*

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

*Reject (14)*

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report. Formally widely grown as a pot plant, and colored forms still are.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

- NZ Nursery register 2004/05 genus level only
  25

- NZ Nursery Register 1997/98 genus level only
  29

- NZ Nursery register 1991/92 genus level only
  32

**Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ** (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

**Known vs potential distribution in NZ (abundance in New Zealand)** (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Very widely distributed in lowland zone on both islands. Future distribution will by "infilling"

**Ease of control of the plant as a species** (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Can be controlled by chemicals but not easily and the most effective chemical ahs side effects another plants. Nearly impossible to eradicate by hand because soft small fragments regenerating

**National eradication i.e. DOC, MAF**

- RPMS YES/NO refer to master document
  Yes

- NPPA YES/NO
  Yes

**Notifiable organism**

No

**Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.**

Nil

**Any known impact on human health?**

No known harm.

**Reasons for inclusion in NPPA.** A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

As it has no seeds, needs to be carried to new localities and despite present widespread distribution, humans still have the potential to cause further spread

**Reasons against inclusion in NPPA.** Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None

**Include in NPPA?**

YES - medium priority
If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting
Nil

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**Trapa natans**

**Common names**
Water chestnut

**Synonyms**
Nil

**Is the plant species present in NZ?** (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
No

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/evidence).
No

If no to previous question, what potential does the species have to establish self-sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
Native to subtropical and temperate Europe, Asia and Africa, naturalised in northeastern USA and Canada.

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Problematic in North America and parts of native range. Invasive in shallow water bodies, including slow flowing water. Smothers other plants and could disrupt irrigation/drainage/recreational activities.

**WRA result and score, for example “reject (18)”.** NOTE - “reject” means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. “Accept” means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

15 (Reject) AWRAM (52)

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report.
Not known from New Zealand, but commonly distributed as a pond plant and food plant (edible fruit) overseas

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

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NZ Nursery register 2004/05 genus level only

--

NZ Nursery Register 1997/98 genus level only

--

NZ Nursery register 1991/92 genus level only

--

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil
Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Not known from New Zealand. Could be problematic in most water bodies in New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Difficult to control, both through lack of effective methods and its aquatic habitat.

National eradication i.e. DOC, MAF
No

RPMS YES/NO refer to master document
—

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
Uncontrolled, it creates nearly impenetrable mats across wide areas of water. Mature nuts of T. natans have very stout and sharp spines that cause significant mechanical injury. They are consequently therefore a hazard to swimmers, and since these also often drift to shore are a painful hazard to bare feet. Therefore apart from causing injury, this plant pose a threat to human well-being by disrupting recreational activities.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Not in New Zealand, retain UO status

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None, less invasive floating-leaved plants available

Include in NPPA?
No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Trapa spp.

Common names
Floating water chestnut

Synonyms
Trapa bispinosa, Trapa bicornis

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

Nil
No

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

No

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

Several other species native to and cultivated for food in Asia.

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Could have similar impacts to Trapa natans.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

15  (Reject) AWRAM (52)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Not known from New Zealand, but commonly distributed as pond plants and food plants (edible fruit) overseas

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

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NZ Nursery register 2004/05 genus level only

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NZ Nursery Register 1997/98 genus level only

---

NZ Nursery register 1991/92 genus level only

---

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Not known from New Zealand. Could be problematic in most water bodies in warm parts of New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Difficult to control, both through lack of effective methods and its aquatic habitat.

National eradication i.e. DOC, MAF

No

RPMS YES/NO refer to master document

---

NPPA YES/NO

No

Notifiable organism

No
Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
Impact could be similar to that caused by Trapa natans.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Not in New Zealand, retain UO status

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None, less invasive floating-leaved plants available

Include in NPPA?
No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

**Tropaeolum speciosum**

Common names
Chilean flame creeper

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
yes (Fl.NZ vol IV). Spreads by seed (bird-dispersed fruit) and some vegetative spread via roots

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Smothering vine invades light gaps and forest edges, inhibits regeneration and competes with native plants.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
reject (14)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Currently banned from sale. Other members of the genus sold

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

—

NZ Nursery register 2004/05 genus level only
? (nothing was entered but I know the genus is sold eg see Gaddum)

NZ Nursery Register 1997/98 genus level only
?

NZ Nursery register 1991/92 genus level only
?

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ [i.e. garage sale, overseas, personal observations]. Include comments on appeal as a cultivated plant

Listed in some NZ-distributed gardening books eg Bryant 1994. Has been sold in the past although probably not widely. Very showy when in flower.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Widespread (in most regions) but only common in limited areas. More likely to invade cooler areas (eg currently invasive in Soutland, inland Canterbury and central NI)

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

repeatedly regrows after herbicide control, even hexazinone (velpar). Keeps regrowing from roots following spraying or physical control

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

DoC weed-led species in 4 conservancies and in 4 RPMSs (2 surveillance, one total control, 1 prevent introduction).

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Difficult to control once established at a site, currently restricted in distribution, under active control by government agencies.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Probably lower impact than some other vine weeds.

Include in NPPA?
YES - high priority
If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil

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**Tussilago farfara**

**Common names**

*Coltsfoot*

**Synonyms**

*Nil*

**Is the plant species present in NZ?** (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

*Yes, but of extremely limited distribution*

**Has the plant species formed self-sustaining populations in New Zealand?** (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

*Yes, but no-one quite knows where the source is*

**If no to previous question, what potential does the species have to establish self sustaining populations in NZ?** (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

*Grows well in UK and in north eastern USA*

**Does the plant have the potential to cause adverse impacts?** (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

*Yes, in disturbed areas can form dense stands from rhizomes. Regarded as invasive in the USA. Grows in some crops and affects their production. Unlikely to be much of an environmental problem.*

**WRA result and score, for example "reject (18)".** NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

*DOC weed score 26, my wra score 8 (reject)*

**Comments on WRA score** (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

*OK*

**Objective evidence it has been or is deliberately distributed in NZ.** Discussed in section 3.2.1 of the evaluation criteria report.

*Nil*

*Gaddum “The Plant Finder” (trade version 2001) - listing to species and cultivar level* —

*NZ Nursery register 2004/05 genus level only* —

*NZ Nursery Register 1997/98 genus level only* —

*NZ Nursery register 1991/92 genus level only* —

**Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ** (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

*Available on websites overseas and used by herbalists as an expectorant and for coughs. I used to eat coltsfoot rock when a boy in UK.*
Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Extremely limited distribution at present and could certainly become more widespread.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Reports vary. Glyphosate may be effective if applied at correct time. DOC database recommends glyphosate or metsulfuron.

National eradication i.e. DOC, MAF
–

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Very limited distribution with potential to spread further and become a problem in agriculture and, possibly, in the environment.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
In NZ possibly since gold rush days (Arthur Healy suggests it may have been introduced by miners), and has never spread. May not become a serious weed.

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Typha domingensis

Common names
Southern cattail, Narrow-leaf cumbungi

Synonyms
Typha angustata

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
No

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
No

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
Widespread in warm temperate to tropical regions.

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Occupies emergent zone, including estuarine areas and could displace indigenous spp.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
15 (Reject) AWRAM (53)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.
Not known from New Zealand, but distributed as a pond plant and for wetland treatment of effluent overseas

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level
NZ Nursery register 2004/05 genus level only
10

NZ Nursery Register 1997/98 genus level only
4

NZ Nursery register 1991/92 genus level only
2

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Not known from New Zealand. Could be problematic in many water bodies/swamps, including estuarine areas in New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Difficult to control, both through lack of effective methods and its aquatic habitat.

National eradication i.e. DOC, MAF
No

RPMS YES/NO refer to master document
–

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Not in New Zealand, retain UO status

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None, less invasive emergent plants available

Include in NPPA?

No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil

**Typha latifolia**

Common names

Great reedmace, cumbungi, common cattail

Synonyms

Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

Yes, one cultivated site in Auckland region, also maintained in cultivation (NIWA secure facilities).

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

Yes, clonal spread from original planting

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Naturalised in Tasmania and Victoria, invades natural wetlands displacing native species and a major drain and irrigation weed.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

17 (16 P&C) (Reject) AWRAM (58)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil
Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Listed in Gaddum distributed as a pond plant and for wetland treatment of effluent overseas

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

2

NZ Nursery register 2004/05 genus level only

10

NZ Nursery Register 1997/98 genus level only

4

NZ Nursery register 1991/92 genus level only

2

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Not naturalised in New Zealand. Could be problematic in most water bodies/swamps in New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Difficult to control, both through lack of effective methods and its aquatic habitat.

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

—

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Not naturalised in New Zealand, could be invasive and possibly hybridise with the native Typha orientalis.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None, less invasive emergent plants available

Include in NPPA?

YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
The narrowed leaved cattail (Typha angustifolia) is listed as available for sale in Gaddum. It has a very similar weed potential to the other two Typha species and if identity is confirmed it should be included in NPPA (A priority)

Notes from TAG meeting
Nil

Utricularia gibba

Common names
bladderwort, humped bladderwort

Synonyms
was initially identified as Utricularia biflora (Flora vol. 4). Other synonyms include Utricularia exoleta, Utricularia bifidocalcar, Utricularia obtusa, Utricularia riccioides, Utricularia tricrenata

Is the plant species present in NZ? (If no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, extensively naturalised in Auckland and Northland.

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, spreading by stem fragmentation and possibly seed. Natural spread between catchments.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Appears to be smothering other submerged vegetation, threatening endangered spp. (e.g. Utricularia australis) and impeding irrigation/drainage.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
24 (Reject) AWRAM (54)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Although not sold in New Zealand it is commonly cultivated and invasive in aquarium situations. Reported as a weed of botanic gardens throughout the world

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

2

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Mostly tropical and subtropical in distribution, but found throughout USA. Could be problematic in most water bodies in warm parts of New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
Difficult to control, both through lack of effective methods and its aquatic habitat.

National eradication i.e. DOC, MAF
—

RPMS YES/NO refer to master document
—

NPPA YES/NO
Yes

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Currently limited areas where it appears to be spreading by natural means. NPPA inclusion reduces long-distance spread.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
None, less invasive floating/submerged plants available

Include in NPPA?
YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

Utricularia livida

Common names

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, established in two sites in Auckland Region
Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

Appears to spread vegetatively, possible the known sites are clonal extension from sites of deliberate introduction.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Native habitat permanently or seasonally wet boggy grassland and in shallow wet soil over rocks. Could impact native short-stature plants in similar habitats.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

3 (Evaluate)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Not listed in Gaddum, but available from some specialist nurseries.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

–

NZ Nursery register 2004/05 genus level only

2

NZ Nursery Register 1997/98 genus level only

–

NZ Nursery register 1991/92 genus level only

–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Easy to grow so probably popular amongst carnivorous plant societies

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Native to southern Africa and Mexico, could establish in suitable habitats in most parts of New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Control with glyphosate and diquat ineffective.

National eradication i.e. DOC, MAF

–

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

No

Notifiable organism

No
Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

DoC weed-led control attempted (Auckland)

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Potential to displace small stature, endangered flora (e.g. Utricularia delicatula) in low nutrient wetland habitats.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Popular, easily cultivated, carnivorous plant

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Less of a threat than Drosera because no seed production, but spread wholly due to deliberate planting.

Notes from TAG meeting
Sufficient information available to include on Accord, but it would be useful to gather further information for the future

Utricularia spp. (except the 3 native species)

Common names
bladderwort

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, Utricularia sandersonii and Utricularia arenaria reported as locally established.

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, local clonal spread and movement of stolons by water.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Native habitat permanently or seasonally wet boggy grassland and in shallow wet soil over rocks. Could impact native short-stature plants in similar habitats.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
3 (Evaluate) for African-type terrestrial spp. only

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil
Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Not listed in Gaddum, but available from some specialist nurseries.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

--

NZ Nursery register 2004/05 genus level only

2

NZ Nursery Register 1997/98 genus level only

--

NZ Nursery register 1991/92 genus level only

--

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Easy to grow so probably popular amongst carnivorous plant societies

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Grading?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Native to southern Africa and could establish in suitable habitats in most parts of New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)
No control attempted.

National eradication i.e. DOC, MAF
No

RPMS YES/NO refer to master document

--

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Potential to displace small stature, endangered flora (e.g. Utricularia delicatula) in low nutrient wetland habitats.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
Popular, easily cultivated, carnivorous plant

Include in NPPA?
No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
There are several subgenera of Utricularia (in addition to the southern African terrestrial species) with different weed threats. It would be difficult to justify banning the whole genus.
Notes from TAG meeting
Do not include genus, but include species sandersonii and arenaria. Same ranking as U. lividia

Vallisneria gigantea

Common names
Eelgrass

Synonyms
Vallisneria 'Lake Pupuke variety' under Noxious Plants Act 1978

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, Lake Pupuke, Auckland

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, common in shallow margins to 7 m deep.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.
Extremely invasive, disrupts recreational activities. Displaces other vegetation from much of submerged range (to ~7 m).

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.
15  (Reject)  AWRAM (51)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Nil

Objective evidence it has been or is deliberately distributed in NZ. (Discussed in section 3.2.1 of the evaluation criteria report. Possibly sold in New Zealand until 1982 (Noxious Plant Act 1978).

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant
A coarse plant, not suitable for most aquaria.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
One site in New Zealand. Could be problematic in most water bodies in New Zealand.
Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Difficult to control, both through lack of effective methods and its aquatic habitat.

National eradication i.e. DOC, MAF

–

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

Yes

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

V. gigantea itself appears to pose no direct harm to human health, but may indirectly affect human well-being as dense infestations can restrict recreational activities and cause flooding.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Only spread by deliberate human planting and subsequent movement by water. NPPA inclusion would prevent spread to new catchments.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None, less invasive submerged plants available

Include in NPPA?

YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil

Vallisneria spiralis? (maybe a hybrid)

Common names

Eelgrass

Synonyms

Vallisneria 'Meola Creek variety' under Noxious Plants Act 1978

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

Yes, Lake Wiritoa (Wanganui), Meola Creek, Masterton and Opawa River (Blenheim). Pond sites from Kerikeri to northern South Island.

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/evidence).
Yes, invasive throughout New Zealand range

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Extremely invasive, disrupts recreational activities, promotes flooding. Displaces other vegetation from much of submerged range (to ~2 m) and forms dense covers in fast-flowing water.

WRA result and score, for example "reject (18)"). NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

15 (Reject) AWRAM (51)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Sold in New Zealand until 1982 (Noxious Plant Act 1978) and since 1993 (not included in current NPPA).

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

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NZ Nursery register 2004/05 genus level only

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NZ Nursery Register 1997/98 genus level only

11

NZ Nursery register 1991/92 genus level only

1

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Commonly used as a background plant in large aquaria, appears to have been deliberately planted and harvested for aquarium use.

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Several sites in New Zealand. Could be problematic in most water bodies in New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Difficult to control, both through lack of effective methods and its aquatic habitat.

National eradication i.e. DOC, MAF

--

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

No

Notifiable organism

No
Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

Similar impact to V. gigantea seems likely.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Only spread by deliberate human planting and subsequent movement by water. NPPA inclusion would prevent spread to new catchments.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

None, less invasive submerged plants available

Include in NPPA?

YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

This assessment refers to the narrow straight leaved plant (Meola Creek variety) currently naturalised and harvested from such sites. It requires genetic characterisation/taxonomic determination (currently the biggest banned plant issue facing aquarists). Twisted leaved species are unlikely to become weeds (higher temperature requirement) and should not be included on NPPA.

Notes from TAG meeting

Highly invasive. Flag Difficulty with naming rather than ID, include the entity discussed. Clarify name, research required.

**Watsonia meriana**

Common names

Synonyms

Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

Yes, common and widespread throughout New Zealand (Flora III).

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Yes, forms dense colonies of plants, particularly in already disturbed habitats.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject 25

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report. Yes, sold in nurseries.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

9

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

8

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Well established, but will continue to spread in to unoccupied habitats.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

—

National eradication i.e. DOC, MAF

—

RPMS YES/NO refer to master document

—

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Nil

Any known impact on human health?

No known harm.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report).

Well established, but being on NPPA will substantially reduce its cultivation and therefore limit the spread of naturalised plants from new sites of cultivation.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none

Include in NPPA?

No - needs more information. Will be considered for next review round of Accord
If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Well established, what would listing on NPPA achieve???

Notes from TAG meeting
More evaluation required

Zantedeschia aethiopica

Common names
Arum lily, White arum lily, ‘Green Goddess’ arum cultivar, Pig lily, St Joseph’s lily, Funeral flower, Lily of the Nile, Death lily

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

yes

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

Yes. Widespread and common throughout NZ - particularly wet sites. Flora IV.

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)

n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Yes. A serious weed of many types of wetter habitats. Can form dense swards that smother other plants.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

reject 13 (and 19)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

13 score taken from WRA list of species. (Reject 19 by P. Heenan).

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Nil

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

19

NZ Nursery register 2004/05 genus level only

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NZ Nursery Register 1997/98 genus level only

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NZ Nursery register 1991/92 genus level only

--

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil
Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Is continuing to spread from populations already naturalised and from garden plants. Cultivars of Z. aethiopica appear to behave differently - "Green Goddess" being a particularly aggressive and abundant naturalised plant.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Spray

National eradication i.e. DOC, MAF
No

RPMS YES/NO refer to master document
Yes

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
Nil

Any known impact on human health?
This plant is described as being highly poisonous as it contains calcium oxylate crystals. Eating this plant will cause severe burning sensation and swelling of lips, tongue, and throat; stomach pain and diarrhea possible.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
An aggressive weed of a variety of wetland habitats that include open wet sites (pasture) and those of semishaded indigenous forest margins.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none

Include in NPPA?
No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
becoming a major weed in wetland areas in the Auckland Region - ARC undertaking control on regional parkland. ‘Green Goddess’ is more salt tolerant and invading estuarine areas in BoP.

Notes from TAG meeting
Exclude from NPPA except for green goddess. More research required for other species.

Zizania latifolia

Common names
Manchurian wild rice, Manchurian ricegrass

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)
Yes, abundant in vicinity of Dargaville, local in other parts of Northland, Auckland, Waikato and Wellington Regions.

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
Yes, invasive throughout New Zealand range

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

Displaces other marginal and wetland vegetation, impedes access to water bodies and affects irrigation/drainage. Grazed when young, but soon becomes unpalatable and excludes palatable species from wet pasture.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

23  (Reject) AWRAM (68)

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Nil

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Not known to be sold, but has been deliberately spread for erosion control in the past.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

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NZ Nursery register 2004/05 genus level only

–

NZ Nursery Register 1997/98 genus level only

–

NZ Nursery register 1991/92 genus level only

–

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Nil

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Several sites in New Zealand. Could be problematic in most water bodies in warm parts of New Zealand.

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

Difficult to control, through lack of effective methods, huge underground biomass and its aquatic habitat.

National eradication i.e. DOC, MAF

No

RPMS YES/NO refer to master document

Yes

NPPA YES/NO

Yes
Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.
NRC, ARC, EW and GW site-led control

Any known impact on human health?
The plant itself poses no direct harm to human health, but indirectly affects human well-being. *Z. latifolia* could seriously affect the use of farmland, and freshwater and estuarine ecosystems. It could a serious problem in important drainage systems, increase the chances of flooding and affect a range of economic and recreational values.

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)
Most spread by accidental human activities (e.g. drainage machinery). NPPA inclusion reduces long-distance spread.

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
*Banishing deliberate propagation, sale and distribution through NPPA unlikely to contribute to management of this species.*

Include in NPPA?
No

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Retain UO status.
Company in Dargaville makes paper products from it (http://www.zizania.co.nz/). *Zizania palustris* was eradicated from one site in NZ

Notes from TAG meeting
*High weed risk, uo status should be retained. Note, controlled everywhere except around Dargaville.*

*Utricularia arenaria.*

Common names

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).
?

If no to previous question, what potential does the species have to establish self sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

WRA result and score, for example "reject (18)". NOTE - “reject” means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)
Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)
Grading? Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/chemical/biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document

NPPA YES/NO
No

Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Any known impact on human health?

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.
none

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil
Utricularia sandersonii

Common names

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/ evidence).

If no to previous question, what potential does the species have to establish self-sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands) n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

NZ Nursery register 2004/05 genus level only

NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.) Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document

NPPA YES/NO
No
Notifiable organism
No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Any known impact on human health?

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

Include in NPPA?
YES - low priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.
Nil

Notes from TAG meeting
Nil

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Zantedeschia green goddess

Common names

Synonyms
Nil

Is the plant species present in NZ? (if no, species will not be included in NPPA, however it can be recommended for UO status if technically justified)

Has the plant species formed self-sustaining populations in New Zealand? (Discussed in section 2.1 of the evaluation criteria report. State where/evidence).

If no to previous question, what potential does the species have to establish self-sustaining populations in NZ? (i.e. overseas range, eg species is currently established in similar climates to NZ eg SE Australia, Hawaii uplands)
n/a

Does the plant have the potential to cause adverse impacts? (Discussed in section 2.2 of the evaluation criteria report. Brief comments on the types of impacts, noting what is affected (eg conservation values, human health). Brief comment on degree of impact. Summarise information provided with species proposals.

WRA result and score, for example "reject (18)". NOTE - "reject" means that the model result is a recommendation to not allow the importation of this species if it was not present in NZ. "Accept" means that the model result is a recommendation to allow the importation of this species if it was not present in NZ.

Comments on WRA score (Discussed in section 3.1 of the evaluation criteria report. Note that there is no system developed specifically for the purpose of evaluating NPPA species. A high ranking as a weed in the WRA system used is indicative only)

Objective evidence it has been or is deliberately distributed in NZ. Discussed in section 3.2.1 of the evaluation criteria report.

Gaddum "The Plant Finder" (trade version 2001) - listing to species and cultivar level

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NZ Nursery register 2004/05 genus level only

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NZ Nursery Register 1997/98 genus level only

NZ Nursery register 1991/92 genus level only

Other supporting information on its deliberate distribution or potential for deliberate distribution in NZ (i.e. garage sale, overseas, personal observations). Include comments on appeal as a cultivated plant

Green Goddess is much more of a concern as it is less widespread, being deliberately spread and possibly more invasive

Known vs potential distribution in NZ (abundance in New Zealand) (Discussed in section 3.2.2 of the evaluation criteria report.)

Gradings?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?

Ease of control of the plant as a species (Discussed in section 3.2.3 of the evaluation criteria report. What physical/ chemical/ biological methods are available for killing the plant? How susceptible is it to control methods? How practical are the control methods in the environments the plant occurs or could occur in?)

National eradication i.e. DOC, MAF

RPMS YES/NO refer to master document

NPPA YES/NO

No

Notifiable organism

No

Other supporting information, for example DOC weed-led, control in parks and reserves etc, can be included if available.

Any known impact on human health?

Reasons for inclusion in NPPA. A summary of how inclusion in the NPPA supports management objectives for the species (see section 3.2 of the evaluation criteria report)

Reasons against inclusion in NPPA. Reasons why this species might be excluded from the NPPA. If there are regulatory impacts the TAG members are aware of then these can be noted here, but TAG members are not required to include these in their decision as these will be addressed by the steering group.

none

Include in NPPA?

YES - high priority

If answering D or E, please note the reason for the uncertainty here. Any other comments here.

Nil

Notes from TAG meeting

Nil