

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

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NZ Nursery Register 1997/98 genus level only

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NZ Nursery register 1991/92 genus level only

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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

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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).

Probably

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

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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
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

—

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

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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
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.

Nil

Notes from TAG meeting

Nil

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 Otago. 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

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

2

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

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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 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).

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.)
Gradings?: 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 bank

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

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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
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.)
Gradients?: Widespread, common, Nth Island, Sth Island, Regions? Habitats?
Could probably expand its distribution and prevalence in NZ. In Australia a problem along waterways and 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).

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

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NZ Nursery register 2004/05 genus level only

1

NZ Nursery Register 1997/98 genus level only

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NZ Nursery register 1991/92 genus level only

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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

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RPMS YES/NO refer to master document

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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.)
Gradients?: 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 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.
Rarely offered for sale, but promoted in Hamilton CC Sustainable Garden.

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.)
Gradients?: 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 atrocineara

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.)

Gradients?: 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) 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 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

68

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 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, Papua 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.)

Gradients?: 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)". 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 (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.)

Gradings?: 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 (FI, 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 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>. A similar species (*S. macroglossus*) listed in some gardening books eg Nicholls 1995 but no info for 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?

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 baning 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.)

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

Widely established in central NI. Absent for SI. 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

last listed in RHS PF in 2000. 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?

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

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?

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.

none

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 investigations 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.)

Gradients?: 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.)
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?

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, the 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, Queensland). 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 the 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 toxic.

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 urushiols 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

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)

Nil

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 be 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 has side effects on other 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

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

—

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.)
Gradients?: 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)

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

—

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.)

Gradients?: 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

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.)

Grading?: 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.)

Gradients?: 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

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?

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.)

Gradients?: 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.)
Gradings?: 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

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

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

—

NZ Nursery register 2004/05 genus level only

—

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)

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 nurseries.

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

1

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.)

Gradients?: 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

—

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?
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

—

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.

Banning 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.)
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 - 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.

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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

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.

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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