

**REVIEW OF SUBMISSIONS ON:**

**DRAFT IMPORT HEALTH STANDARD FOR THE IMPORTATION INTO NEW ZEALAND  
OF ZOO LIZARDS FROM AUSTRALIA AND ZOO LIZARD HATCHING EGGS FROM  
AUSTRALIA**

Biosecurity New Zealand  
Ministry of Agriculture and Forestry  
Wellington  
New Zealand

**22 October 2010**

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Approved for general release

Matthew Stone  
Animal Import/Export Group Manager  
MAF Biosecurity New Zealand

## INTRODUCTION

The draft import health standard for the importation into New Zealand of Zoo Lizards from Australia and Zoo Lizard Hatching Eggs from Australia was notified for consultation on 30 June 2010.

MAF received submissions from the following:

Simon Eyre, Wellington Zoo Trust	13 August 2010
Barbara Watkins, NZ Herpetological Society Inc.	11 August 2010
Philip Bell, Department of Conservation	9 August 2010
Vernon Tintinger, University of Auckland	1 July 2010

This document summarises the issues raised in the submissions, and presents the MAF response to each.

## MAFBNZ review of submissions

### 1. VERNON TINTINGER, AUCKLAND UNIVERSITY

#### 1.1 Jackson chameleon eggs are listed in the appendix as permissible to import however Jackson's chameleons are ovoviviparous

**MAFBNZ response:** Noted. This will be addressed in the final import health standard as it will be removed as a species eligible for import.

### 2. PHIL BELL, DEPARTMENT OF CONSERVATION (DoC)

#### 2.1 5 of the species (Goulds Monitor *Varanus gouldii*; Jackson's Chameleon *Chamaeleo jacksonii*; Fiji Banded Iguana *Brachylophus fasciatus*; House Gecko *Gekko monarchus*; House Gecko [see 2.4] *Gehyra australis*) are included in the IHS's without being included in the Import Risk Analysis.

**MAFBNZ response:** The risk analysis was written to consider the entire Order of Squamata. It is the opinion of the risk analysis author that the analysis is applicable to the whole Order, despite the list of species specifically identified as being considered. However, after discussion with a Zoo and Aquarium Association representative, it has been decided that these species will still be removed from the eligibility list.

#### 2.2 We note that the lizard IHS does not require varanids to be inspected for mites. We question the reasoning behind that. A paper provided by Dr Allen Heath (ectoparasitologist, AgResearch) states that "ticks and mites are very common on monitors."

**MAFBNZ response:** The section quoted comes from a paragraph specific to ticks. Although it does mention mites in the last sentence, this is not cited from reference material. The risk analysis states that mites [on varanids] can be considered a negligible risk in the commodity.

#### 2.3 We question whether there is a need for the lizard IHS, if there is also a lizard hatching egg IHS? We consider the lizard hatching egg IHS is likely to be the safer route due to the reduced risk from associated parasites and pathogens.

**MAFBNZ response:** It is important to have an import health standard for both as this allows for any future additions of ovoviviparous species. Both the live and hatching eggs have been considered in the risk analysis – these import health standards are consistent with others such as Zoo Crocodylia from Australia.

#### 2.4 The common name of *Gehyra australis* is Northern Dtella, rather than House Gecko

**MAFBNZ response:** Noted. This will be addressed in the final import health standard as it will be removed as a species eligible for import (in addition to 1.1).

### 3. BARBARA WATKINS, NEW ZEALAND HERPETOLOGICAL SOCIETY INCORPORATED

#### 3.1 There is no proof of containment by the recipient(s) the major concern that we have is in regard to future threats to New Zealand's endemic wild reptiles, from possible habitat

deprivation, predation, and food competition which would occur from any accidental or deliberate releases. We request that:

1. restrictions be imposed to prevent any sales for revenue,
2. record keeping be made mandatory including
- 3 the cause of any deaths and autopsy reports issued.

**MAFBNZ response:** The prevention or management of any adverse effects associated with a new lizard species entering New Zealand is a requirement of the Hazardous Substances and New Organisms (HSNO) Act 1996. Zoo animals considered ‘new’ under the HSNO Act are held in a containment facility approved to MAF Standard 154.03.04 *Containment Facilities for Zoo Animals*. The containment standard addresses measures to ensure containment, and also sufficient record keeping. The final import health standard will list the specific containment facility standard (154.03.04) requirement. Referred to below is a section of this standard:

“This Standard applies to zoo animals that are new organisms, i.e. those that have not been approved for release in New Zealand (e.g. lions and meercats) but are deemed to have containment approval under the HSNO Act 1996.

These new organisms are not eligible for release into New Zealand and the primary purpose of containment is to prevent their escape. They are defined as ‘restricted organisms’ in the Biosecurity Act, 1993 and are required to be held permanently in a containment facility approved under this Act.”

### **3.2 We believe that inspections of the containment facilities should be ongoing**

**MAFBNZ response:** An audit is carried out at least every 12 months as required for compliance with the above standard.

### **3.3 The society is perturbed that such effort and resources are spent on the promotion of exotic reptiles when relatively little interest is shown in New Zealand endemic species**

**MAFBNZ response:** MAF appreciates the Society’s comments. However it is MAF’s role to facilitate trade by developing the import requirements for species that are requested by New Zealand’s zoological facilities.

## **4. SIMON EYRE, WELLINGTON ZOO**

**4.1 It is standard technique to examine so many high power (HP) fields rather than count the total number of cells seen. Erythrocytes vary in size depending on the class of animals (reptilian RBCs are large and nucleated, mammalian RBCs are smaller and not nucleated, therefore many more per HP field). The Taronga Zoo Veterinary department would recommend that blood smears be examined at low magnification (400X) followed by scanning of at least 100 fields at high magnification (1000X).**

**MAFBNZ response:** The examination of at least 10,000 erythrocytes per animal is consistent with Perkins *et al.* as cited in the risk analysis. MAF would prefer to be less prescriptive with regards to the magnification levels.

**4.2 4.4.3 i. mite pockets. Not an anatomically correct term. Better to use the right word or phrase such as skin folds, periorbital region etc.**

**MAFBNZ response:** Mite pockets are consistent with the risk analysis, however, the import health standard will refer to skin folds.

## 5. Copies of Submissions

### 5.1 VERNON TINTINGER, UNIVERSITY OF AUCKLAND

Sent: Thursday, 1 July, 2010 1:09PM

Subject: Draft Import Health Standard for reptile eggs from Australia feedback

Hi Erin

Just a minor point. Jackson chameleon eggs are listed in the appendix as permissible to import however Jackson's chaemeleons are ovoviviparous - no shelled egg!

Regards vernon

Vernon Tintinger  
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University of Auckland.  
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## 5.2 PHILIP BELL, DEPARTMENT OF CONSERVATION

Sent: Monday 9 August, 2010 3:55PM

Subject: Draft IHS for Zoo Lizards and Zoo Lizard hatching eggs from Australia - DOC comments

Hi,

Thank you for the opportunity to review the draft IHS for Zoo Lizards from Australia; and Zoo Lizard Hatching Eggs from Australia. Please find the Department of Conservation's comments below.

We are pleased to see the IHS's are restricted to zoo containment only. We consider that the risks of the lizards themselves have not been sufficiently assessed to enable open importation.

We do have some concerns however.

5 of the species (Gould's Monitor *Varanus gouldii*; Jackson's Chameleon *Chamaeleo jacksonii*; Fiji Banded Iguana *Brachylophus fasciatus*; House Gecko *Gekko monarchus*; House Gecko *Gehyra australis*) are included in the IHS's **without being included in the Import Risk Analysis**. We consider this poses a major risk that associated pathogens/parasites from these species may not have been considered in the IHS requirements. We suggest these IHS's is either put on hold while the five species are correctly put through the Risk Analysis process, or these five species are excluded from Appendix A for the IHS's at this time.

Also, the common name of *Gehyra australis* is Northern Dtella, rather than House Gecko.

We note that the lizard IHS does not require varanids to be inspected for mites. We question the reasoning behind that. A paper provided by Dr Allen Heath (ectoparasitologist, AgResearch) states that "ticks and mites are very common on monitors" (see page 11 of <http://www.environment.gov.au/biodiversity/abrs/publications/fauna-of-australia/pubs/volume2a/30-fauna-2a-squamata-varanidae.pdf>). Dr Heath also provides this reference (Domrow R, Lester LN. 1985. Chiggers of Australia (Acari: Trombiculidae): an annotated checklist, keys and bibliography. Australian Journal of Zoology supplementary series no. 114. 1-111) as further evidence of mites being present on varanids. We suggest this requirement for varanids is revised in the IHS.

We question whether there is a need for the lizard IHS, if there is also a lizard hatching egg IHS? We consider the lizard hatching egg IHS is likely to be the safer route due to the reduced risk from associated parasites and pathogens.

Please feel free to contact me should you have any questions or need for further clarification.

Cheers,

**Phil Bell**

**SENIOR TECHNICAL SUPPORT OFFICER (BIOSECURITY)**

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### 5.3 BARBARA WATKINS, NZ HERPETOLOGICAL SOCIETY INC.

Sent: Wednesday 11 August, 2010 4:04PM

Subject: Draft IHS for Zoo Lizards and Zoo Lizard hatching eggs from Australia

Based on current knowledge, all precautions into the background of the health of the proposed importation of reptile eggs from Australia appear to be covered. Therefore the committee of the New Zealand Herpetological Society Inc. cannot offer any ...reason to preclude these eggs on these grounds. However as there is no proof of containment by the recipient(s) the major concern that we have is in regard to future threats to New Zealand's endemic wild reptiles, from possible habitat deprivation, predation, and food competition which would occur from any accidental or deliberate releases.

There is also a likelihood of zoos regarding surplus stock as a revenue earner, or for staff or associates to attempt smuggling these exotic animals out into the public arena for pecuniary advantages.

To this end we request that:

1. restrictions be imposed to prevent any sales for revenue,
2. record keeping be made mandatory including
- 3 the cause of any deaths and autopsy reports issued.

We believe that inspections of the containment facilities should be ongoing so as to ensure that the areas remain appropriate for the species and that a quarantine period for the hatchlings be imposed.

The society is perturbed that such effort and resources are spent on the promotion of exotic reptiles when relatively little interest is shown in New Zealand endemic species, which would greatly benefit from a higher profile within zoos along with the accompanying research and husbandry skills.

We thank you for the opportunity to comment on this proposal.

On behalf of the NZHS committee,

Barbara Watkins.  
(Secretary)

## 5.4 SIMON EYRE, WELLINGTON ZOO TRUST

Sent: Friday 13 August, 2010 8:56AM

Subject: Comments on Lizard HIS

### **Part E: Appendix A**

Taxonomic name: *Varanus gouldii* (misspelt as *goudii*)

#### 4.2.1

It is standard technique to examine so many high power (HP) fields rather than count the total number of cells seen. Erythrocytes vary in size depending on the class of animals (reptilian RBCs are large and nucleated, mammalian RBCs are smaller and not nucleated, therefore many more per HP field). The Taronga Zoo Veterinary department would recommend that blood smears be examined at low magnification (400X) followed by scanning of at least 100 fields at high magnification (1000X).

#### 4.4 Ectoparasites p10

##### 4.4.3

i. *mite pockets* . Not an anatomically correct term. Better to use the right word or phrase such as *skin folds*, *periorbital region* etc.