



Guidelines for preparing your assessment report to amend the Live Import List and assessing the impact of live animal imports

These guidelines have been written to assist applicants (proponents) in completing an application to amend the *List of Specimens Suitable for Live Import* (Live Import List) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) to include a new species/ specimen.

The following document outlines the application processes conducted by the Department of the Environment, Water, Heritage and the Arts (DEWHA), and describes the requirements and minimum information needed to adequately assess the impact of importing this species.

Application

These guidelines are written in accordance with Sections 303EC, 303EJ and 303EF of the EPBC Act. To apply for any vertebrate or invertebrate animal specimens (excluding biocontrol agents) to be included on the list of specimens suitable for live import it is necessary to complete the application form and draft risk assessment report, and return it to DEWHA.

The draft report must include an assessment of the potential impacts of the species on the Australian environment. Applicants may complete this assessment themselves or may wish to employ a suitable consultant.

Terms of Reference

Terms of reference (ToR) are a list of questions to be addressed in the environment assessment report. The purpose of the ToR is to assess the potential impact that a species may have on the Australian environment. The environment assessment report enables the Minister to make a decision on the species proposed for import, based on a thorough assessment of the potential risks to the environment.

Inclusion of a species on the live import list means that anyone can then import it, not just the proponent. It is very important therefore for DEWHA to assess all potential environmental impacts despite the nature of the proponent's intended import.

Environment as defined in the EPBC Act includes:

- (a) ecosystems and their constituent parts, including people and communities; and
- (b) natural and physical resources; and
- (c) the qualities and characteristics of locations, places and areas; and
- (d) the social, economic and cultural aspects of a thing mentioned in paragraph (a), (b) or (c).

All terms of reference must be addressed in the draft report for it to be processed. Additional information not included in the ToR's may be included if the applicant chooses.

Environment Assessment Report

As discussed, the Terms of Reference identify the issues that must be addressed in the risk assessment report. It is strongly recommended that the Terms of Reference be used as subject headings in the report. This will ensure that all of the information required by the Minister to make a decision is clearly incorporated within the report.

The draft report is published on the department's website for 40 business days and stakeholders are invited to provide comments. At the same time, the Minister contacts the relevant Commonwealth, state and territory ministers advising them of the publication of the report and inviting their comments. The Minister may also consult with other organisations or individuals before making a decision to amend the list.

At the end of the consultation period the department collates all comments received from stakeholders, and the Commonwealth, state and territory ministers, and forwards them to the applicant. Relevant comments must be incorporated by the applicant in the final report.

The Minister will make a decision about the proposed amendment based upon the final report and the outcomes of the consultation.

If the Minister does not approve an amendment to add the species to the live import list, the import of the proposed species will remain prohibited. Where this occurs, the applicant will be advised in writing of the decision.

The following are a few points to assist you with preparing and presenting the report:

- The report should be researched and presented in a clear and professional manner. It must comprehensively address each of the Terms of Reference.
- All stated information should be fully referenced in a clear and appropriate manner. It is important that claims in the report are based upon scientifically sound information. Where information is lacking, any reference to this in published literature should also be noted.
- Where it is not possible to obtain information from published literature, information published through more informal media, such as the internet, can be included in the report. Information obtained from these sources must be cited. For example, the web site address should be cited after the relevant information.
- While the applicant is responsible for preparing the report, they have the option of employing a suitably qualified consultant to undertake the actual research and writing.

Report Contents

1. Provide information on the taxonomy of the species

The following information is required about the taxonomy of the species and its role in its natural environment.

- a) Family name: Identify which family the species belongs to.
- b) Genus name: Identify which genus the species belongs to.
- c) Species: Identify the species.
- d) Subspecies: Are there any recognised subspecies, and if so, what subspecies does the proposed specimen for import belong to?
- e) Taxonomic Reference: (eg. Axelrod, page no., illustration page no.)
- f) Common Names: Note what common names the species is known as (if any)

For example, the Plains Zebra (common name) is known scientifically as *Equus burchelli*, where 'Equus' is the genus and 'burchelli' is the species. Zebras belong to the family *Equidae*.

- g) Is the species a genetically-modified organism (GMO)? Identify if the species has been genetically modified. If the species has been genetically modified or engineered, you will need to contact the Office of the Gene Technology Regulator (www.ogtr.gov.au) before proceeding with this application.

2. Provide information on the status of the species under CITES

The Convention on International Trade in Endangered Species of Fauna and Flora (CITES) is an international treaty involving over 150 countries with the purpose of protecting wildlife from unregulated trade. Australia, as a member country, controls the import and export of species that are threatened or could become threatened due to trade in them or their products.

A species may be affected in its natural environment by factors such as habitat destruction and fragmentation, and illegal collection for a variety of purposes e.g. for the pet industry. To help mitigate the threat of collection and trade, the species could be listed in the CITES Appendices. A species on CITES Appendix I or II requires appropriate CITES import permits to enter Australia.

If the proposed species for import is listed on CITES Appendix I or II discuss as appropriate:

- the implications of illegal trade
- popularity of the species in trade e.g. pet industry
- status of species in its natural range e.g. threatened, endangered, protected etc.
- why is this species threatened?

CITES listing is taken into account when considering restrictions in countries outside the species' natural range.

3. Provide information about the ecology of the species

These characteristics may influence the likelihood of the species to establish feral populations

- a) Longevity: what is the average lifespan of the species in the wild and in captivity?

- b) What is the maximum length and weight that the species attains? Provide information on the size and weight range for males and females of the species.
- c) Discuss the identification of the individuals in this species, including if the sexes of the species are readily distinguishable, and if the species is difficult to distinguish from other species.

Where possible provide representative photographs of female and male specimens at all life stages. Ensure you have appropriate copyright permission as the report will be published on the department's website.

- d) Natural geographic range. What is the country of origin and what is the natural distribution of this species? Where does the species occur naturally? Exclude any areas where the species has been introduced through human intervention. Describe any population limiting influences in its natural range including: predator / prey relationships, competition, availability of resources etc.
- e) Is the species migratory? Identify if the species moves seasonally between different habitats. Migratory behaviour may occur between countries, within one country, or may occur on a small scale, for example from high altitudes to low altitudes on a mountain range.
- f) Does the species have the ability to hibernate in winter or aestivate (go into stasis or torpor) in the summer months)?
- g) Does the species have the ability to breathe atmospheric air i.e. has accessory breathing organs? (fish and other mobile aquatic animals)
- h) Habitat Requirements. Outline the habitat requirements for all life stages of the species:
 - physical parameters (eg. salinity, oxygen, pH, temperature) of the natural habitat;
 - climate;
 - What nest sites can the species use? 'Nest' is taken to mean a specific area individuals return to in order to sleep, bear or rear young. Identify where the species does/can nest. For example tree hollows; burrows; caves; buildings; cliff faces; dams, lake, pond marsh, swamp, reed-bed; particular ground surface; particular vegetation type; other (specify).
 - Does the species nest, shelter or feed in or around any of the following habitats? Marshes or swamps; estuaries, lakes, ponds or dams, rivers, channels or streams, banks of water bodies; coastal beaches or sand dunes (specify). This question seeks to identify if the species could impact on habitat(s) listed.
- i) Social behaviour or groupings. Describe how the animal would naturally dwell, for example in social groups, pairs, solitary; animals may be predominantly solitary except during breeding seasons etc. How does the species behave towards its own kind and other species?
- j) Is this species ever territorial or does it exhibit aggressive behaviour? Is the species naturally territorial? If so, what would the natural territory range be? Identify whether this species has ever acted in an aggressive manner towards other species, including humans, outside of any usual predator-prey interactions.
- k) Characteristics that may cause harm to humans or any other species. Is the animal capable of inflicting harm? A response for this question would arise if the species has organs such as teeth, a bill, spines or claws that are capable of causing injuries to people that are more significant than minor cuts or bruises.

4. Provide information on the reproductive biology of the species

Assess and describe the reproductive characteristics of the species

- a) At what age does this species reach sexual maturity (males and females)?
- b) Discuss the species' ability to reproduce; triggers for breeding; breeding site requirements.
- c) How frequently does breeding occur?
- d) For sessile aquatic invertebrates include details of:
 - the length of time spent as motile larvae or plankton
 - growth patterns (e.g. is it colonial or does it grow as a solitary animal)
 - characteristics or behaviour that enable the species to survive drought, or other adverse conditions (e.g. forming cysts or spores).
- e) Can individuals of the species change sex? (reptiles, amphibians, fish and other mobile aquatic animals)
- f) Ability of the species to hybridise. Describe any known crosses. Are progeny of such crosses fertile?
- g) Could the species hybridise with any Australian native species? Identify whether the species could negatively impact native species through hybridisation (cross-breeding with native species).
- h) Are individuals single sexed? (i.e. either male or female) or hermaphroditic (i.e. have both male and female reproductive organs)

5. Provide information on whether this species has established feral populations

- a) Has this species ever established a breeding population outside of its native range? Identify any areas where this species has established a breeding population outside of its natural range.
- b) Is the species considered a pest anywhere in its natural or introduced range? A pest is a species of animal that causes wide-scale economic cost or amenity loss through its presence or activities. Identify whether this species is subject to active management to reduce population numbers.
- c) Has the species been introduced to other countries, even if it has not established feral populations?

6. Environmental risk assessments of the species

Have any risk assessments of the species, or similar species been carried out in Australia or overseas? Include the results of those assessments in the report.

7. Assess the likelihood that the species could establish a breeding population in Australia

The following points outline the information required for determining the likelihood that the species could establish and inhabit possible matches in the Australian environment.

- a) Ability to find food sources. Is the species a generalist feeder or does it have specific food needs? What is the likelihood of it finding food in Australia if it was released or escaped? Describe the feeding characteristics of the species, including whether it has a similar diet to any Australian native species.

- b) Ability to survive and adapt to climatic conditions. Describe the characteristics or behaviour that would enhance its ability to survive extreme climatic conditions (e.g. drought) and its ability to adapt to different environments.
- c) Ability to find shelter. Can the species live in modified habitats? Identify if this species can live in habitats that have been modified by humans, either directly or indirectly, e.g. example plantation forests; gardens; orchards; vineyards; crops; cities or towns; buildings; improved pastures; dams, channels or drains; other (please specify).
- d) Reproduction. Could factors such as longevity, birth rates and numbers of offspring increase the likelihood of the species to establish?
- e) Are there any limiting influences on the species' natural range? Predator / prey relationships, competition, availability of resources etc. Assess what similar population constraints might exist in Australia.
- f) Address the issue of increased potential for feral population establishment if more individuals of the species were present in Australia.

8. Provide a comprehensive assessment of the potential impact of the species should it become established in Australia

Summarise the potential impact on the environment of importing the specimen. Address both the potential impacts of the particular import that is proposed, and the potential impacts of the species should the specimen(s) ever be released from effective human control.

It is important that a full explanation and comprehensive analysis, including the costs and benefits, of each aspect is undertaken.

An application will not be continued if information provided in this section is inadequate.

- a) Does the species have similar niche/living requirements to native species?
 - Could wild populations of the species use the same resources as native Australian species, for example that it would compete with for food, shelter etc.
 - If 'yes', what types of resources could be used and which types of Australian native species could be affected: food; water; space; rest or shelter sites; nest sites; other. What native species would be affected?
 - If the species you are proposing to import is a mammal, identify if it can climb trees.
- b) Probable prey/ food sources
 - Does the species attack or prey on wildlife? Identify if the species has the capacity to attack or prey on wildlife. If 'yes', specify whether the prey are: waders or waterfowl; other birds; mammals < 1 kg; mammals 1–5 kg mammals > 5 kg; amphibians; vertebrate eggs; fish; aquatic invertebrates; reptiles; insects; land invertebrates; other; (specify).
 - Does the species attack or prey on domestic or commercial animals or plants?
- c) Impacts on habitat and local environments.
 - Could the species reduce the ground vegetation cover to an extent where it could cause or increase soil erosion? This question looks at identifying if the species, through feeding, digging or other activities could have a detrimental impact on vegetation such that the underlying soil is exposed to increased erosion.
 - Does the species construct burrows or dig near or around waterways? Identify if the species does/can burrow or otherwise disturb the substrate (soil or sand) around waterways.

- Has the species ever been recorded causing damage to: native animals' habitats; natural communities; native plants; forestry; agriculture?
 - Could the species inhibit tree seedling regeneration in forests and woodland? This question aims to identify if the species could have a negative impact on regeneration in native forests and woodlands.
 - Could the species spread weeds? Identify whether the species could spread weeds through carrying seeds on their fur/feathers, defecating the seeds at a distance from the parent plant or moving viable vegetative matter to new areas.
- d) Behaviours that cause environmental degradation
- Behavioural characteristics. Describe any behaviours of the species which cause physical disturbance to the environment e.g. hooves, digging etc.
 - Does the species eat or disturb wetlands/ wetland vegetation? This question seeks to identify negative impacts the species may have on wetlands.
 - Could the species cause pollution of water bodies? This question seeks to identify if the species could impact native aquatic flora or fauna by polluting waterways.
 - If possible, outline the current health of the possible habitat matches in Australia and analyse their sensitivity to possible introductions from the species being assessed.
- e) Impacts on primary industries
- Has the species ever been recorded causing damage to: livestock, poultry, agriculture?
 - Could a wild population of the species eat or damage any of the following: plant parts or products; flowers or buds; nuts; root vegetables; leaf vegetables; sugarcane; fodder crops; cotton; nursery / garden plants; timber forests or plantation trees; fruit orchards; stored grain or seeds; legumes; cereal grain in field; oilseeds or coarse grains in field; other (specify).
 - Could wild populations of the species use any resources that might cause it to compete with livestock? This question seeks to identify if this species could compete with livestock.
 - Has the species ever inflicted damage to trees, shrubs or their seedlings that has caused tree death or affected their value as timber? This question aims to identify if the species may have a negative impact on tree plantations/silvicultural activities.
- f) Damage to property
- Could the species deface or physically damage buildings? Identify if the species could damage buildings either through physical damage, or through depositing excrement on the exterior of the building.
 - Could the species damage fences? Identify if the species has the capacity to damage fences.
 - Could the species damage equipment? Identify if the species could cause damage to domestic or commercial equipment.
- g) Is the species a social nuisance or danger? For example because of the following behaviours: invading buildings; forming large noisy colonies or flocks; polluting equipment, buildings, parks or other public facilities with urine, droppings or nesting material; posing a risk to aircraft when present in flightways or at airports; other (please specify).

- h) Describe any potentially harmful characteristics of the species.
- Any potential threat to humans, any available mitigation measures (such as anti-venom), and methods for appropriate handling.
 - Has the species ever injured people? Identify whether there are any recorded instances of this species causing harm to people.
 - Is the species susceptible to, or could it transmit any pests or diseases? Identify if the species could potentially transmit harmful diseases or parasites to humans or any other species.

9. What conditions or restrictions could be applied to reduce any potential negative impacts of the species?

- Discuss any control/ eradication programs that could be applied in Australia if the species was released or escaped. Are any such eradication programs already available in Australia?

10. Summary of proposed activity

What is the proposed purpose of the import? Specify the reason you want to import the species. This may be for eligible non-commercial purposes such as research, education, exhibition, conservation breeding, household pet or travelling exhibition, or for commercial purposes. Where appropriate discuss:

- The rationale for choosing to import this species into Australia.
- Clearly state the numbers of animals you want to import.
- Discuss the interaction between males of this species. Do they need to be segregated?
- If the purpose is for breeding discuss the management and control of excess progeny in the breeding program. How many animals will be kept at any time on the premises? How will lack of genetic variation be managed in the breeding program?
- Discuss any other potential uses for this species should it be imported into Australia. Where applicable, describe its human uses (eg. zoos, research, pets etc).
- Provide details on where animals are obtained, e.g. captive bred populations or from the wild.

11. Guidelines on how species should be kept

As appropriate discuss the following issues:

- What are the standards for transporting animals? Will the animals be transported according to International Air Transport Association (IATA) regulations?
- How does enclosure size relate to territory requirements?
- Discuss the containment and management standards for Australia e.g. the proportion of males to females and the maximum number that should be kept in enclosures/ aquaria. Also if single sex populations would be contained within enclosures to limit breeding etc.
- What standards are used for the enclosures/ aquaria in which this species would be kept? What are the best practice standards? Who applies these standards? Will enclosures/ aquaria be sufficiently large enough for the humane containment of the animals? For example providing sufficient depth and length?
- Address welfare issues in housing captive specimens.

12. State/ Territory controls

Outline any Commonwealth, state, or territory legislative controls on the species and provide information on any other relevant assessments that have been made of the species.

As each state and territory of Australia has different legislation regarding legally keeping different species, and some states/ territories prohibit keeping certain animals, therefore please check what the restrictions each state/ territory imposes.

Are you aware of quarantine requirements for bringing live animals into Australia? Is the species you are proposing to have added to the Live Import List allowed to be imported under the *Quarantine Act 1908*? Does an import permit need to be obtained from AQIS?

If not, contact Biosecurity Australia to discuss the undertaking of an Import Risk Analysis (IRA) by telephone on (02) 6272 3933 or visit their website for more information at www.BiosecurityAustralia.gov.au

13. Conditions/ restrictions

Conditions may be suggested that would reduce the impacts of importing the specimen on the Australian environment. If the outcome of the assessment is that the specimen can be imported subjected to conditions, it will be placed on Part 2 of the Live Import List (i.e. the regulated part of the list).

Recommended conditions should be relevant to the conservation status of the species and/or the risks posed by the import. Conditions should mitigate the likely establishment and impact that a species may have.