



Live animal imports of exotic species/specimens

Application to amend the List of Specimens taken to be Suitable for Live Import (Live Import List)

Terms of Reference for Aquatic Species

The purpose of the Terms of Reference is to provide the information required to assess the potential impact that a specimen may have on the Australian environment. This assists the Minister for the Environment and Water to make a decision on the specimen proposed for import, based on a thorough assessment of the potential risks to the environment.

Guidelines

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

To apply for any vertebrate or invertebrate animal specimens (excluding biocontrol agents) to be included on the Live Import List it is necessary to submit to the department the form '*Application to amend the List of Specimens Suitable for Live Import*' along with a draft assessment report. The draft assessment report assists the Minister to make a decision on the species proposed for import, based on a thorough assessment of the potential risks to the environment.

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

Inclusion of a species/specimen on the Live Import List means that anyone can then import it, not just the proponent. It is very important therefore for the department to assess all potential environmental impacts regardless of 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) Heritage values of places; and
- e) the social, economic and cultural aspects of a thing mentioned in paragraph (a), (b), (c) or (d).

Draft Assessment Report

All Terms of Reference must be addressed in the draft report for it to be processed. Additional information not included in the Terms of Reference may be included if the applicant chooses. It is

strongly recommended that the Terms of Reference be used as subject headings in the report. This will ensure that all 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 at least 20 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. The applicant must incorporate all relevant comments in the final report. This final report and a risk assessment prepared by the department will then be sent to Commonwealth, state, and territory departments for comments during a second consultation round. The Minister will make a decision about the proposed amendment based upon the applicant's final report, a report of the risk assessment prepared by the department, 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:

- Ensure you use copyright-free images in your report.
- Research and present all information in a clear and professional manner.
- Peer-reviewed, scientific information should be drawn upon with references cited.
- Where it is not possible to obtain information from published literature, information from other sources, 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.

Terms of Reference

1. Taxonomy

Provide information on the taxonomy of the species including family, genus, species and subspecies, as well as any synonyms.

2. Identification

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. 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.

3. Conservation Status

Provide information on the status of the species under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the IUCN. For example, is the species listed on CITES Appendix I, II or III, and if so, are there any specific restrictions on the movement of this species? Is the species included in the IUCN Red List of Threatened Species?

4. Purpose and source of import

Provide a summary of the types of activities that the specimen may be used for if imported into Australia (e.g., research, education, exhibition, conservation breeding, household pet or travelling exhibition, or for commercial purposes – NB if biocontrol please use Biocontrol ToR) and from where the animals will be obtained. Please include information on the rationale for this species, the numbers you want to import and standards for importation.

5. Legislative controls

Provide information on all other Commonwealth, state and territory legislative controls on the species, including the species' current quarantine status, or pest or noxious status, or whether it is prohibited or controlled by permit or licence in any state or territory.

6. Has the species been the subject of domestication (or cultivation) for at least 20 generations, or is it easily reared in captivity?

7. Is the taxon harvested in the wild and likely to be sold or used in its live form?

For example, lobsters, molluscs, fish etc. either immediately or grown on for human consumption; fishes, crayfishes, plants, algae, etc. for use in captivity (e.g., private and public aquaria, garden ponds, ornamental gardens, zoos)

8. Are there any invasive races, subspecies, or varieties?

9. What is the country of origin and the natural distribution of this species?

Please provide a map where available.

10. Are there areas in Australia that are climatically similar to the species' native range?

Using Climatch, and/or by comparing with the Köppen–Geiger zones to make a 'best estimate', are there areas in Australia that have an appropriate climate to enable the establishment of self-sustaining populations?

11. Is the taxon already present outside of captivity anywhere in Australia?

12. How many potential pathways could the taxon use to enter the Australian environment?

Consider all likely pathways of entry (unintentional and intentional).

13. Has the taxon become naturalised (established viable populations) outside its native range?

14. In the species' introduced range, are there known adverse impacts to:

- wild stocks or commercial species
- aquaculture species
- ecosystem services?
- socio-economic impacts?

If any boxes are ticked, please provide additional information.

15. Does the species have any harmful characteristics (poisonous/venomous/spines/aggression), or pose any risks to human health?

16. Is it likely that the species will sequester food resources from, or smother, one or more native species?

For example, some non-native species are known to suppress the growth of native species.

17. Are there threatened or protected taxa that the non-native species would consume or parasitise in Australia?

For example, would the species become a predator or parasite of threatened or protected native species (e.g. local, regional, national red lists; Habitats & Species Directive Annexes; IUCN Red List, etc.)

18. Is the taxon adaptable in terms of climatic and other environmental conditions, thus enhancing its potential persistence if it has invaded or could invade the RA area?

Adaptability' refers to the species' ability to overcome physiological or other barriers in order to establish self-sustaining populations.

19. Would the species disrupt food webs in ecosystems it has or is likely to invade?

20. Is the taxon likely to exert adverse impacts on ecosystem services in the RA area?

Various amenities (e.g. angling, water sports) and ecosystem products (e.g. drinking water supply, small-scale fisheries) in the RA area may be likely to be impacted.

21. Does the species host, and/or is it a vector, for one or more recognised infectious diseases/parasites that are endemic in Australia (see [Australia's National List of Reportable Diseases of Aquatic Animals](#))?

22. Does the species host, and/or is it a vector, for one or more recognised infectious diseases/parasites that are absent from Australia (not endemic) (see [Australia's National List of Reportable Diseases of Aquatic Animals](#))?

23. What is the species' common and maximum body size?

24. Is the species tolerant of a range of water velocity conditions?

25. What is the diet and feeding behaviour of the species?

26. Does feeding or other behaviours of the species reduce habitat quality for native species?

For example, benthic foraging or burrow construction that leads to an increase in suspended solids, reducing water clarity?

27. Does the species exhibit parental care and/or reduce age-at-maturity in response to environmental conditions?

For example, is it a mouth-brooder, does it bear live young, does it nest guard?

28. Is the species likely to produce viable gametes or propagules in Australia?

For example, are the conditions needed for maturation and reproduction available anywhere in Australia?

29. Does the species hybridise under natural conditions? Is the species likely to hybridize with native species in Australia?

30. Is the species hermaphroditic, or it is capable of asexual reproduction or parthenogenesis?

31. Is the species dependent on the presence of another species or specific habitat features to complete its life cycle?

For example, fast-flowing water, particular species of plant or types of substrata

32. What is the fecundity of the species (number of eggs per spawn), and does it produce offspring multiple times in a lifecycle, or have an extended spawning season?

33. What is the time from hatching/parturition to full maturity?

34. Are life stages likely to be dispersed unintentionally?

For example, bait buckets, live eggs on anglers' gear, accidental release during aquarium maintenance as a food fish or an angling amenity, for ornament or unusual appearance, for cultural reasons, as a contaminant of other commercially sold fish.

35. How many pathways (intentional and unintentional) could the species use to disperse? Will any of these pathways bring the taxon in close proximity to one or more protected areas (e.g., marine parks, Ramsar Wetlands sites, world heritage and national heritage listed areas)?

36. Does the species have a means of actively attaching itself to hard substrata (e.g., ship hulls, pilings, buoys) such that it enhances the likelihood of dispersal?

37. Are eggs or larvae dispersed by water current, or can they move between water bodies via connections?

For example, climbing vertical surfaces, through pipes.

38. Are juveniles or adults of the species known to migrate (spawning, smolting, feeding)?

39. Are eggs of the species known to be dispersed by other animals?

For example, accidentally by waterfowl when they move from water body to water body.

40. Is dispersal along any of the abovementioned pathways likely to be rapid?

'Rapid' refers to any dispersal between the organism's starting point and the recipient location that takes place in less than a calendar year for mobile organisms and less than five years for passive dispersing organisms.

41. Is the species (at any life stage) able to withstand being out of water for extended periods (e.g. minimum of one or more hours)?

42. What are the species environmental tolerances, including water quality, oxygen, pH and temperature extremes?

43. Can the species be controlled or eradicated in the wild with chemical, biological, or other agents/means?

44. Does the species tolerate or benefit from environmental disturbance?

For example, floods, spates, desiccation, including both short- and long-term human impacts.

45. Does the species have a wide salinity tolerance at any stage of its life cycle?

46. Are there effective natural enemies of the species present in Australia?

47. Under the predicted future climatic conditions, are the risks of entry, establishment and dispersal into the Australian environment posed by the species likely to increase, decrease or not change?

48. Under the predicted future climatic conditions, what is the likely magnitude of future potential impacts on biodiversity, ecosystems and socio-economic factors?

49. Is there the potential for any habitat or ecological community changes resulting from establishment?

For example, prey for native predators, habitat alterations, facilitation of the survival of other species, changes to community dynamics

50. In the event of establishment, are there any potential social or cultural impacts?

Social or cultural effects may arise as a result of impacts to commercial or recreational values, life support/human health, cultural significance, biodiversity, aesthetics or beneficial uses. When considering social and cultural impacts, effects to human and animal health, indigenous cultural values, quality of life, should be considered, e.g., distress caused by dead/dying fish as a result of disease spread, or at treated infestation sites; reduced access to water bodies due to eradication measures.

51. In the event of establishment, are there any potential economic impacts?

For example, impacts to trade, livestock or crops, aquaculture. Economic impacts may include loss of earnings due to reduced productivity, costs of mitigation, remediation and eradication, research costs, reduced earnings, impacts to export markets, banning of sale of commercially popular species etc.

52. What control/eradication programs could be applied in Australia if the species was released or escaped?

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

e.g., single sex imports, size restrictions etc. If the outcome of the assessment is that the specimen can be imported subjected to conditions, limiting imports to eligible non-commercial purposes only, excluding household pets, it will be placed on Part 2 of the Live Import List (i.e., the species of animals and plants suitable for live import with an import permit issued under the Environment Protection and Biodiversity Conservation Act.).