STOPPING NEW INVASIVE SPECIES

Executive summary

Attachment to a submission to the inquiry into the adequacy of arrangements to prevent the entry and establishment of invasive species likely to harm Australia's natural environment conducted by the Senate Environment and Communications References Committee

September 2014

invasive species council

Submission details This is the executive summary of a detailed submission (dated 8 September 2014).

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ENDORSEMENTS

The following 30 organisations endorse the primary submission by the Invasive Species Council to the Senate inquiry into the adequacy of arrangements to prevent the entry and establishment of invasive species likely to harm Australia's natural environment.

NATIONAL ORGANISATIONS

Australian Conservation Foundation

Humane Society International

The Wilderness Society

FAME Foundation for Australia's Most Endangered Species Ltd.

Australian Network for Plant Conservation Inc

Environmental Justice Australia

Australian Marine Conservation Society

Island Conservation Preventing Extinctions

birdlife AUSTRALIA

Australian Wildlife Society

CONSERVATION COUNCILS AND OTHER STATE GROUPS

Environment Centre NT

NQCC North Queensland Conservation Council

Queensland Conservation

Wildlife Preservation Society of Qld

environs KIMBERLEY

Conservation Council SA

Arid Lands Environment Centre

ccwa Look forward

CONSERVATION COUNCIL ACT REGION

environment victoria

Nature Conservation Council The voice for nature in NSW

tasmanian conservation trust inc

ENVIRONMENT TASMANIA The Conservation Council

NATIONAL PARKS ASSOCIATIONS

National Parks Australia Council Working together for nature conservation areas

VICTORIAN NATIONAL PARKS ASSOCIATION

NATIONAL PARKS ASSOCIATION OF NSW

TNPA TASMANIAN NATIONAL PARKS ASSOCIATION INC

NATIONAL PARKS ASSOCIATION OF QUEENSLAND INC. WWW.NPAQ.ORG.AU

Nature Conservation Society of South Australia

Executive Summary

The Australian environment has suffered major losses due to invasive species, and the rate of new incursions suggests we have not yet absorbed the lessons from past mistakes. They show that our environmental biosecurity system has serious, systemic flaws including ineffective institutional arrangements and processes and insufficient funding. Environmental biosecurity lags behind that for industry. Australia needs a stronger focus on environmental biodiversity that is ecologically informed, well-coordinated and collaborative. Until this happens, new invasive species will continue to arrive and establish with deadly consequences for the Australian environment.

Although there have been many improvements in biosecurity, approaches to environmental biosecurity tend to be tacked onto existing biosecurity structures that prioritise industry interests. Although there are many overlaps with industry biosecurity, environmental biosecurity is more challenging, with a greater scale and complexity of threats, fewer management options and more limited resources. Conservation requires protecting hundreds of thousands of species and complex ecosystems with irreplaceable value, while organisms of value to industry are relatively few. Much less is known about biodiversity than agricultural assets, and there are high levels of uncertainty about the environmental impacts of invasive species. Fewer management options are available and environmental biosecurity relies on government and community investment for the public good, while commercial incentives drive industry biosecurity.

Recent incursions and interceptions

ToR (a)(i) (a)(ii) (a)(iii) (a)(iv) (b)(vii)

Since 2000, a large number of incursions with potential for environmental harm have been detected. Those with recently established populations include 24 species not permitted into Australia (three vertebrate species, ten invertebrates, eight plants and three pathogens) and 12 species permitted for keeping in parts of Australia (mostly aquarium fish). Another 29 vertebrate species with a moderate to serious risk of establishment have been detected in the wild but have not naturalised.

Of the 36 incursions noted here of now-naturalised organisms, at least 14 have probably arrived accidentally with cargo or as stowaways, four have probably resulted from illegal smuggling or keeping, and 12 have probably been released or escaped from captivity. Case studies of 12 incursions detected since 2000 show that weaknesses right along the biosecurity continuum have facilitated the entry and establishment of new species in Australia likely to cause environmental harm. Four case studies of future risks exemplify a lack of risk assessment and contingency planning for future invasive threats.

Interception patterns show significant problems with illegal and legal keeping of exotic vertebrates. From 1999–2010, 67 exotic vertebrate species and over 780 individuals were seized, surrendered or stolen from private keeping. More than 40 species of smuggled animals and more than 60 stowaway vertebrate species were intercepted at the border.

Apart from a few of the most severe threats, the extent and likely impacts of recent incursions are poorly known and reported. Information collection and publication is vital for biosecurity functions, but the information required for adequate reporting is held by disparate sources or does not exist. Data collected by the national biosecurity agency is deficient and lacks detail. Australia needs nationally agreed protocols for collecting data and a publicly accessible data repository.

There is no evidence that governments have sought to learn through reviews and analyses of recent incursions.

Assessing risks and priorities

ToR (b)(i) (b)(ii) (b)(iii)

There has not been any systematic identification and prioritisation of environmental biosecurity threats. The agricultural department lists just 10 highest priority threats, only some of which are environmental concerns. The work of identifying threats and pathways should be undertaken by an environmental equivalent to Plant Health Australia and Animal Health Australia. A sound process for identifying threats involves horizon scanning, with expert consultation to develop ranked lists of potential threats, and consensus building across expert groups to compile and rank the list of potential invasive species.

Import decisions should be based on independent, transparent and scientifically credible risk assessments by an independent expert body such as the Beale-recommended model of an independent biosecurity authority and commission. The variety of risk assessment processes used vary considerably in their rigour, transparency, precaution and requirements for public consultation. Australia requires risk assessment of new proposed imports but many currently permitted imports have not undergone risk assessment at all because they were being imported prior to the introduction of mandatory risk assessment. Import risk analysis should be directed to the highest priorities, based on environmental, economic and human health criteria, including existing imports. There should be mandatory public reviews of import conditions when there is evidence they are failing to keep out potential invasive species.

There has been very little contingency and other planning for environmental biosecurity. No body currently exists to take the lead on essential planning for priority environmental threats.

Detection and response systems

ToR (b)(iv) (b)(v) (b) vi) (b)(viii) (c)

Apart from routine surveillance at ports and airports, there is limited surveillance for high priority threats to the environment. Existing surveillance programs are mainly focused on economic threats. While the regional Northern Australian Quarantine Strategy monitoring program is an excellent model and has identified a number of new incursions, recent budget cuts and economic priorities will undermine its capacity to detect environmental threats. Essential diagnostic capacity for priority environmental threats such as invasive ants is limited. With appropriate support, a community mobilisation program could assist with surveillance efforts.

Formal incursion response systems deal poorly with environmental biosecurity, in particular due to the lack of an environmental entity equivalent to Plant Health Australia and Animal Health Australia, a lack of engagement with the environmental and community sectors, and the often limited involvement of ecological experts. Under the current system, national eradications require consensus approval from parties to the response agreements, often leading to limited, slow or no action, and short-term, limited funding. Responses to environmental incursions are often trapped in a catch 22 situation – too little is known about potential impacts to motivate biosecurity authorities to take action, yet by the time impacts become obvious it is too late for eradication or containment. Decision-makers tend to proceed with eradication only if there is a high degree of certainty about its technical feasibility. The high costs and difficulties in managing entrenched invasive species and our international obligations warrant applying the precautionary principle to decisions about incursion responses.

There is often limited involvement of environment departments in response decisions, and community or environmental groups have no involvement at all. A new decision-making and funding model for eradications is needed.

Environmental crimes do not get the focus they warrant due to the low level of resources, placement of biosecurity within agricultural agencies, a lack of a coordinated intelligence network, and insufficient investigation methodologies. Courts give low penalties for wildlife crimes despite the thriving illegal trade in wildlife, extensive illegal keeping, and openly advertised sales of banned species. The Internet trade is a growing biosecurity risk – ISC demonstrated it is easy to make online purchases of prohibited, high-risk plants.

Australia's poor knowledge of invasive species threats to biodiversity needs to be addressed. The demise of the Weeds CRC and the loss of research staff in government agencies and CSIRO have substantially reduced research capacity. One recent advance is the development of a draft national environment and community biosecurity research, development and extension strategy.

Institutional arrangements

ToR (b)(v) (b)(vii)

Most biosecurity units are run by agricultural departments, which lack specific commitment to environmental targets, environmental expertise at decision-making levels, and methods for responding to ecological uncertainties and costing environmental impacts. As a result, the environment is treated largely as an add-on to existing biosecurity approaches rather than driving

(b)(viii) new ecologically informed approaches. As is widely acknowledged, environmental biosecurity has not received the same priority and resources as biosecurity for industry and lags behind. New institutional arrangements are needed to ensure sufficient priority is given to the environment. Decision-making on biosecurity would be enhanced by forming an independent biosecurity authority with an expert biosecurity commission as recommended by the Beale review.

Biosecurity in Australia is largely opaque, with a limited flow of information, limited consultation requirements and limited community involvement in policy setting. The Biosecurity Advisory Council characterised community biosecurity engagement strategies as 'fragmented, under resourced and uncoordinated'. Potential benefits from greater engagement include higher quality policies and decisions, improved biosecurity practices and stronger community and political support for biosecurity. Greater transparency and regular reporting on environmental biosecurity is needed to allow the community (and parliament) to better understand and evaluate biosecurity decisions and performance. A body such as the proposed Environment Health Australia is the most practicable way of engendering partnerships with community to address high priority biosecurity issues.

Australia's islands and oceans

ToR (b)(i) (b)(ii) (b)(iii) (b)(iv) (c)

Australia's islands are important environmental assets that are highly vulnerable to invasive species. Rigorous biosecurity for islands should be a high environmental priority, yet Australia lacks a comprehensive plan of action for island biosecurity and there is little surveillance of incursions on most of Australia's 8000 islands. Environmental NGOs have proposed a National Island Biosecurity Initiative to establish biosecurity priorities for all islands based on their ecological values and risk assessment and develop biosecurity management systems. Essential biosecurity functions could be facilitated by the declaration of 'conservation biosecurity zones'.

Australia's marine environments face growing threats from marine pests attached to ship hulls or equipment as bio-fouling or carried in ballast water. As shipping volumes escalate, marine invasion risks rise. This should be addressed by mandatory adoption of international guidelines on bio-fouling, adopting a national regulatory approach to ballast water, and undertaking mandatory port marine pest surveys at least every five years.

A dedicated body to improve preparedness and responses

ToR (b)(iii) (b)(vii) (b)(viii)

Environment NGOs propose the establishment of a national body – called Environment Health Australia or similar – as a very high priority to improve Australia's biosecurity preparedness, responses, capacity, and collaboration. Functions would include promoting more ecologically informed approaches to biosecurity, enhancing community involvement, and monitoring and reporting on biosecurity progress.

With no body to take the lead on essential planning for priority threats, environmental biosecurity currently suffers from a lack of contingency planning for environmental threats. In contrast, the Australian federal and state/territory governments have invested many millions of dollars in developing plans and strategies to improve industry biosecurity – more than $20 million over the past five years. Given how far environmental biosecurity lags behind agricultural biosecurity, there is good reason for the federal government to invest even more in an equivalent environmental body. A dedicated environmental body is needed. Bolting environmental functions onto existing structures Plant Health Australia and Animal Health Australia will not work since existing industry-focused bodies are unlikely to give environmental threats the priority and focus warranted and to effectively involve the community sector.

Recommendations

1. For the purposes of this inquiry, compile lists of interceptions and incursions detected in Australia since 2000 by requesting information from relevant federal and state/territory agencies. Include information where available about the date and location of detections, likely origins and pathways, potential impacts and any actions taken.
2. Undertake an audit of current record-keeping practices and databases with records of interceptions and incursions.

3. Develop national protocols for collection of data on interceptions and incursions, and establish a national, publicly accessible database on interceptions, incursions and responses.
4. Obtain an agreement through COAG for all states and territories to supply specific information on interceptions and incursions to DAFF (or other agency). Require DAFF to publish annual reports on interceptions and incursions with sufficient information to allow for analysis of trends and biosecurity performance.
5. Undertake analysis of incursions and interceptions to identify high risk species and pathways for environmental biosecurity (this would be an appropriate function of the proposed Environment Health Australia).
6. Publish annual reviews of environmental biosecurity performance (as is done for the animal and plant industries) (again an appropriate function of the proposed Environment Health Australia).
7. Foster a learning culture in biosecurity by requiring public reviews of responses to incursions.
8. Establish an independent expert panel to review recent incursions (including those provided as case studies for this submission) to recommend ongoing responses to those incursions and reforms to reduce the risks of future incursions. An immediate priority should be to review whether smooth newts are eradicable.
9. As a high priority, through a transparent, scientific process, identify and rank Australia's priority environmental biosecurity threats. Undertake pathway analysis of these high priority threats to identify where biosecurity should be focused. These tasks should be undertaken in an ongoing way (with regular reviews of priorities) by a body such as the proposed Environment Health Australia.
10. Undertake a horizon scanning process to identify and rank future biosecurity threats to the environment. This should be done in two steps through a transparent process involving all relevant experts: (1) development of a comprehensive preliminary list of potential threats, including plants, terrestrial invertebrates, freshwater invertebrates, vertebrates, marine species and pathogens and (2) prioritisation to derive ranked lists of potential invasive species through a consensus-building process. Ideally, this task would be undertaken by a body such as the proposed Environment Health Australia.
11. Establish a foresighting unit within the environment department as recommended by the 2009 Hawke review of the EPBC Act.
12. Ensure that all import decisions are based on independent, transparent and scientifically credible risk assessments. Adopt the Beale-recommended model of an independent authority and expert commission. Otherwise, establish a Risk Assessment Authority to undertake risk assessments and import risk analyses.
13. Require all biosecurity risk assessments to be open for consultation and published.
14. Develop triggers to conduct an import risk analysis of existing permitted imports for which there is evidence (such as a high rate of interceptions or incursions) that are not meeting Australia's ALOP.
15. Ensure that import risk analysis is directed to the highest priorities, including environmental, economic and health priorities, by establishing a transparent prioritisation process based on degree of risk.
16. Require the precautionary principle to be applied to all biosecurity risk assessments, as required under the Biodiversity Convention.
17. Develop a timetable for bringing environmental biosecurity planning up to the level achieved for plant and animal industries. Within 3 years develop contingency plans for 30 high priority environmental pests.
18. Within two years develop an environmental biosecurity strategy.
19. Conduct an audit of surveillance programs Australia-wide that target priority environmental threats. Identify major gaps in surveillance, including those for tramp ants.
20. Develop dedicated surveillance programs for high priority environmental threats based on pathway risk analysis.
21. Conduct an audit of diagnostic capacity within Australia for priority environmental threat categories such as invasive ants. Develop a strategy to fill gaps in diagnostic capacity. Develop diagnostic protocols for priority environmental threats.
22. Develop a community mobilisation program to assist with surveillance efforts.
23. Develop a new model of decision-making in response to incursions to maximise the potential for decision-making in the public interest. This should include (i) majority rather than consensus decision-making, (ii) involvement of the community sector (at least as an observer to the national management group and consultative committees), (iii) much greater transparency about decision-making including publication of reasons for all decisions, (iv) peer review of significance and

eradication feasibility assessments, (v) early establishment of scientific panels, and (vi) application of the precautionary principle.

24. Establish an emergency response fund that can be used to fund immediate and ongoing emergency responses up to a certain level for identified high priority, nationally significant incursions as assessed by an expert panel.
25. Establish a national network of wildlife crime investigators and crime intelligence analysts supported by a wildlife crime intelligence database.
26. Conduct public education about wildlife crime, including through publicising arrests and seizures. Establish and promote a national reporting system for wildlife crime.
27. Develop a strategy for environmental biosecurity compliance that identifies priorities.
28. Provide funding for forensic analysis of DNA for wildlife crime investigations.
29. Conduct a risk analysis of illegal smuggling and keeping of wildlife and develop a compliance strategy to target these crimes.
30. Conduct an audit of internet sales of organisms not permitted in Australia and develop a compliance strategy to stop illegal internet sales.
31. Investigate the adequacy of penalties available and applied for crimes relevant to environmental biosecurity. Educate the judiciary on the serious biosecurity consequences of wildlife crimes.
32. Develop a program similar to that of the Scottish Partnership for Action against Wildlife Crime which involves government agencies, NGOs and the community working together to combat wildlife crime.
33. Establish Environment Health Australia, or similar body, as the most practicable way to engender partnerships with community to address priority environmental biosecurity issues.
34. Establish a consultative committee for environmental biosecurity, involving representatives from the range of environmental community stakeholders, to engage with DSEWPaC and DAFF on priority environmental biosecurity issues.
35. On all consultative and advisory committees relevant to environmental biosecurity, ensure there is representation from the environmental community sector adequate to represent the diversity of views and expertise of the sector and proportionate to the environmental relevance of the committee. Where the issues are equally relevant to industry and the environment, ensure there is equivalent representation from both sectors. The membership of the Biosecurity Advisory Council should have equal representation of expertise in agriculture and the environment.
36. Establish an 'environmental engagement' position within the biosecurity agency to work with the sector to facilitate access to information and participation within biosecurity processes.
37. Develop a memorandum of understanding between DAFF and representative organisations within the environmental community sector and best practice engagement guidelines for the sector as a project undertaken in partnership with the sector. This project would include assessment of the capacity needs of the sector to fully engage in biosecurity processes at all levels.
38. Publish extensive information about biosecurity on the internet, providing open access to information to allow the community sector to better understand and evaluate biosecurity decisions and performance.
39. Mandate the following reporting requirements:
    - Environmental biosecurity outlook reports (every two years)
    - State of environmental biosecurity reports (annual), including on progress to achieve targets in the proposed Environmental Biosecurity Strategy.
40. Implement the structure proposed by the Beale review of a statutory Biosecurity Authority, an expert Biosecurity Commission and an independent Director of Biosecurity.
41. Specify that at least one-third of Biosecurity Commissioners must have primary expertise in disciplines relevant to environmental biosecurity, including ecology and conservation biology, and be appointed by the Environment Minister, as recommended by the Hawke review of the EPBC Act.
42. Create a Biosecurity Minister to oversee biosecurity legislation. Alternatively, provide the Environment Minister with statutory decision-making roles relating to important environmental biosecurity issues.
43. Elevate environmental biosecurity as a priority in biosecurity legislation and in the administration of biosecurity.
44. Establish a new national body – called Environment Health Australia (or similar) – to bring together major participants in environmental biosecurity, effectively involve the community sector, and facilitate cross-jurisdictional, cross-sectoral collaboration on priority tasks. The functions would include:

- Improve Australia's biosecurity preparedness, eg. develop contingency plans and surveillance protocols, and conduct foresighting
- Strengthen the foundations of environmental biosecurity by promoting more ecologically informed approaches to biosecurity
- Promote effective responses to environmental invasions, eg. develop emergency response plans and facilitate training
- Enhance community awareness, vigilance and action in biosecurity
- Improve environmental biosecurity capacity, eg. identify and prioritise research and capacity needs and act as a clearing house for information
- Improve coordination and collaboration between jurisdictions, agencies and sectors.
- Monitor and report on progress in environmental biosecurity.

45. Invest a minimum of $20 million over the next 5 years in the proposed Environment Health Australia. Encourage state and territory governments to contribute at least $10 million over the next 5 years.
46. Develop a National Island Biosecurity Initiative, which includes:
    - establishing biosecurity priorities for all islands based on their ecological values and risk assessment
    - developing biosecurity management systems for all islands, with individual biosecurity management systems for high priority and high risk islands
    - conducting regular surveillance of high and medium priority islands
    - developing best practice biosecurity approaches for island managers
    - establishing ready response capability for islands
    - building community support for improved island biosecurity.
47. Under the Biosecurity Bill, establish a category of biosecurity zone for high value conservation areas with high biosecurity risks known as 'conservation biosecurity zones', as the basis for implementing biosecurity measures, plans and monitoring for islands (and other high-value sites). The zones should be declared by the Secretary of the Environment Department on advice by a scientific committee (e.g. Threatened Species Scientific Committee), and biosecurity arrangements negotiated in bilateral agreements with state and territory governments.
48. Accede to the IMO Ballast Water Convention and pass national legislation to implement the convention. Adopt a national regulatory approach to ballast water, covering international and domestic traffic, for all Australian waters, as proposed in the Biosecurity Bill, with standards specified in regulations.
49. Legislate mandatory adoption of IMO Guidelines on bio-fouling. Adopt a national regulatory approach to biofouling, covering international and domestic traffic, for all Australian waters.
50. Require ships coming to Australia to have ship-board ballast water treatment systems.
51. Undertake mandatory port marine pest surveys at least every five years.
52. Increase funding for research into biological control agents for environment weeds and pests.
53. Finalise the National Environment and Community Biosecurity Research, Development and Extension Strategy this year, and provide funding for identified high priorities.
54. Re-establish a research organisation similar to the former Weeds CRC.