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Senate Standing Committees on Environment and Communications
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Dear Committee members

WWF-Australia

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RE: Senate Inquiry into The effectiveness of threatened species and ecological communities' protection in Australia

WWF welcomes the opportunity to provide input to the Senate Standing Committee on Environment and Communications Inquiry into the effectiveness of threatened species and ecological communities' protection in Australia.

WWF recognises that the protection of our threatened species and the record of state governments in protecting them is a complex area. Nevertheless, WWF-Australia remains convinced that any proposed amendments to be made to the environmental laws and processes that support them need to be strengthened, rather than weakened through the devolution of authority to state jurisdiction or other so-called "streamlining" and "greentape reduction" initiatives.

This submission builds on a considerable body of work, amassed from both within the WWF network and from a wide range of independent sources, to respond to this Inquiry.

Based on the rationale for the Inquiry provided on 31 October 2012, and on the advice given for making a submission to this Senate inquiry, a summary of the main issues is presented followed by specific considerations addressed under the Terms of Reference headings.

Summary

Australia's rich heritage of unique native plants and animals is in crisis, facing an unprecedented wave of extinctions due to habitat conversion and resource use on land and sea, and now climate change.

An analysis of threatened species laws in all Australian jurisdictions[1] concludes that the current provisions for halting and reversing ongoing biodiversity losses are grossly inadequate and need to be reviewed, strengthened, fully resourced and implemented.

In particular

- The premier legislative protection mechanism, the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), despite its many strengths, still has many weaknesses.
- To strengthen the EPBC Act WWF-Australia recommends:

- Removal of current provisions for delegation of approval power to states
- Mandatory development of bioregional plans cooperatively with state and local governments to regulate all threatening processes and their drivers with a significant impact on protected matters, in a comprehensive way. This would also define absolute no-go areas for development and resource use within a bioregion.
- Making the listing of critical habitats mandatory, rather than discretionary as they are now, and treat impacts to critical habitats as if they were an impact to the species itself

In addition

- The overall funding via Caring for Our Country and Biodiversity Funds is grossly inadequate to the task of recovering protected matters to the point they can be de-listed. The quantum needs to be increased significantly to meet the need.
- The funding that is available is not well focussed on recovering national protected matters nor on the most effective means of doing so in a lasting way by bringing critical habitats into protected areas. Government investment needs to focus on these priorities and more generally on putting in place permanent arrangements that guarantee abatement of threats and recovery of species, rather than the current emphasis on short term abatement of threats.
- In particular the recent decision of the federal environment department to axe it's greatest conservation success story, the national reserve system program must be reconsidered, and funding reinstated and increased to a level adequate to meet Australia's international commitments.

Introduction

Australia is one of seventeen countries described as being 'megadiverse'. This group of countries has less than 10% of the global surface, but support more than 70% of the biological diversity on earth.[2] Australia has the worst rate of modern extinctions of mammals of any country in the world.[3] Most recently, we lost the Christmas Island Pipistrelle.

Mammal and bird decline is continuing even in remote northern Australia, and mass extinctions are expected unless Australia invests in lasting arrangements for threat elimination and species recovery at a landscape scale.[4]

A national Mammal Action Plan currently in preparation is expected to reveal an even faster rate of decline in terrestrial mammals than birds (A.A. Burbidge pers. comm). Paramount among the causes of the ongoing mammal and bird loss are exotic feral animals, particularly the red fox and feral domestic cat.

To date, no species listed under the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) has been downlisted as a result of genuine population recovery.[5]

Australia is a developed and relatively wealthy country with professional parks and wildlife agencies in every jurisdiction, and an international reputation for good conservation science. With such advantages, there is little excuse for our failure to halt declines in species and ecosystems.

Terms of Reference

(a) management of key threats to listed species and ecological communities

Threatened species can never be considered recovered until threats are removed to the extent that populations can be considered viable for the indefinite future.

Many species appear to be conservation dependent, that is, their populations might appear to be at healthy levels, but only as a result of ongoing threat abatement activities that if removed, would again throw the population into decline. Hence there is the need for removal of threats not just temporary suppression.[6]

By far the most effective threat abatement has been the introduction of land clearing or vegetation management legislation in the states and territories.

This has had a dramatic impact on deforestation and habitat loss and consequent greenhouse gas emissions (Fig 1), although clearing continues under various exemptions, especially the re-clearing of unprotected regrowing forests and woodlands.

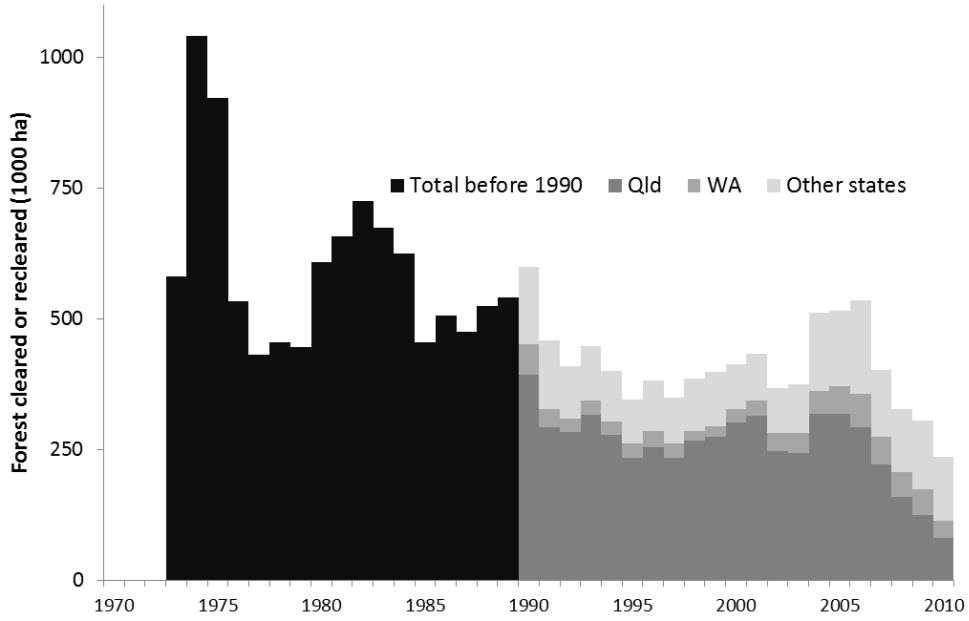

Figure 1. Forest area cleared or recleared according to the National Greenhouse Gas Inventory activity tables for land use change.[7]

This has been most important for Queensland, where a ban on broadscale land clearing took effect in 2006.

The effect of direct habitat destruction on wildlife is predictably catastrophic, and is the main reason for terrestrial species becoming endangered.[8]

Off-site and exported impacts of land uses

However, the effects of land use on wildlife go beyond the immediate footprint of habitat destroyed by land clearing or equivalent processes in the ocean such as the removal or destruction of seagrass habitat by dredging and/or dredge spoil disposal by:

- fragmenting habitats, preventing natural levels of dispersal and exchange,
- increasing edge effects on the patches that remain, like drying out, fire and pest incursions
- accelerating degradation of freshwater and near shore marine areas through soil erosion, water pollution and altered hydrology

- shortening and transforming food chains at a landscape/seascape scale through direct reductions of top or apex predators such as dingoes and sharks

Pervasive threats worse under climate change

The most intractable threats are pervasive, degrading habitat even on protected areas where habitat is otherwise protected against deliberate loss or degradation due to land use.

Pervasive threats include pollution (for example agriculture derived pollution harming the Great Barrier Reef), altered hydrology at a catchment scale, weeds, exotic animal pests and changed fire regimes.

All these threats are likely to be exacerbated by climate change making the job of maintaining habitat quality even inside protected areas much more challenging.[9]

More attention to ultimate threat drivers needed

The current approach of listing key threatening processes (KTPs) and development of threat abatement plans should be made comprehensive and mandatory.

More attention should be paid to ultimate drivers of KTPs, rather than proximate processes themselves.

For example, the chief driver of land clearing, grazing impacts and soil loss is livestock production. [10]

Importantly, research evidence and the documented outcomes on leading producers properties, suggests that all these impacts of livestock production can be avoided or minimised by adopting improved practices to conserve high conservation areas, to conserve ground layer communities and soils by grazing conservatively and resting paddocks, by controlling water availability and by appropriate wildlife damage control. A process to drive widespread and enduring uptake of such improved practices would have enormous benefits for threatened species recovery in Australia and should be a major focus of Commonwealth and State government action, whether or not it is implemented via the EPBC Act. [11]

Threat abatement should also focus on threat elimination at the appropriate bioregional scale, rather than temporary suppression at a limited scale.

Abatement of threats at a bioregional scale would greatly benefit from spatially explicit mapping.[12]

Shift emphasis to self-sustaining, biological threat reduction

For exotic weeds and animal pests the only enduring solution in ecological time is the introduction of biological controls that are self-sustaining and require minimal ongoing human intervention.

Conservation investment is best directed at selecting and releasing effective biocontrol agents such as calicivirus in rabbits, or the salvinia weevil, rather than never-ending and expensive spraying, shooting, baiting and other direct control measures.

For feral cats, foxes, goats and pigs, abatement is based on continued high cost baiting programs that also affect native animals.

Evidence suggest that ceasing the current landscape-scale suppression of dingoes and other wild dogs might help to provide a more enduring biological form of regulation of these feral vertebrate pests.[13] Importantly, cost-effective alternatives to mass killing of dingoes exist for livestock protection.[14]

Loss of top predators and "trophic downscaling" is perhaps the most profound impact of humans on the earth's ecosystems.[15]

(b) development and implementation of recovery plans

Recent research shows no correlation of actual measured recovery or stabilisation of threatened species with recovery effort or recovery plans in Australia.[16]

However, US research shows a different result, with single species recovery plans (but not multi-species plans) linked to measured recovery.[17]

This does not suggest that recovery plans are a waste of time, but rather, that in Australia they are not being designed or funded to achieve genuine recovery. The EPBC Act requires that recovery plans be developed and adopted for listed species, but has no requirement regarding implementation and evaluation of implementation of recovery plans.

Recovery plans must:

- have clear, scientifically-credible population-based criteria for what constitutes recovery for a given species
- define recovery as the achievement of self-sustaining population and range sizes, and elimination of threats to a level that the threatened entity can be delisted
- have a mandatory requirement to specify and map critical habitats, that is the habitat required for the species to be able to recover (see (c) below)
- include realistic investment levels required to bring threatened species critical habitats into the protected area system ("national reserve system"). Incredibly, few recovery plans even mention protected areas
- have built in guarantees and assurances of implementation and evaluation of effectiveness.

Few plans meet these standards. Legislation should be tightened to set and ensure compliance with standards.

(c) management of critical habitat across all land tenures

A key concern is whether critical habitats are adequately protected under the EPBC Act.

Recovery plans are required to identify critical habitats but few provide explicit maps.

The EPBC Act provides for a register of critical habitats, but this is discretionary, a serious deficiency in the Act. Under the US Endangered Species legislation, critical habitat designation and protection is obligatory. Research shows that designation of critical habitats under the US law has a significant additional benefit for species recovery over and above listing itself and recovery plans.[18]

The EPBC Act should adopt a rigorous definition of critical habitat tied to recovery. Under the US model, critical habitat includes habitat occupied but also habitat suitable and not yet re-occupied by the species, and that will be needed for the species to be able to expand to the point it can be considered recovered and so delisted.

Even for critical habitats inside protected areas, the permanence, security and audit arrangements to ensure management effectiveness are more important issues than tenure.

Private land protected areas under covenants are of highly variable security at present because state laws under which covenants are made may allow such areas to be mined, logged and grazed, inconsistent with IUCN protected area guidelines.[19]

Covenants should in theory be as secure and permanent as a national park. If legislation does not provide the same security it should be reformed.

Uniform national standards are needed to assure protection of any protected area is truly effective.

(d) regulatory and funding arrangements at all levels of government

Funding arrangements are grossly inadequate.

Recovery plans are required to articulate the investments needed to secure recovery but these investments are not always followed through.

Caring for Our Country and Biodiversity Fund are largely devoted to short term approaches spread over the landscape, without much regard for matters listed under the EPBC Act.

Commonwealth conservation funding should have two main conditions:-

- Demonstrable recovery of threatened matters as the major outcome of all investment, including for example, recovery of the Great Barrier Reef through reducing agricultural pollution
- Enduring arrangements primarily through covenants, to ensure recovery is an enduring legacy, not just a short term outcome readily reversed.

The shortcomings of the EPBC Act are well known. Some were identified in the Hawke review, some not. Conservation groups have already signalled the ways in which they believe the EPBC Act should be strengthened and this submission is attached as Attachment 2.

Outside of the EPBC Act, there are significant shortcomings in the scale and focus of investment needed to protect and recover Australia's declining biodiversity.

The lack of focus is best demonstrated in Australia's official biodiversity strategy [20], which incredibly, does not articulate a single target for recovering threatened species or ecosystems, such as for example: "by 2030, 50% of threatened species and ecosystems will be removed from the EPBCA list due to complete and lasting recovery and removal of threats"[21].

Australia's targets do not even refer to protected areas but rather a vague area target for "habitat managed primarily for biodiversity conservation" without clarity on long term security of arrangements.

Our national biodiversity strategy needs to be revised to fully reflect the targets Australia committed to at CoP 10 of the Convention on Biological Diversity in particular Targets 11 and 12:

> "Target 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.
>
> Target 12: By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained."[22]

At present the contribution of the $2.2 billion Caring for Our Country program toward threatened species and community recovery is unknown. We have no idea of what Caring for Our Country (or Natural Heritage Trust before it) has or is likely to have achieved in terms of halting or reversing declines of listed species and communities.

The Caring for Our Country target relevant to threatened species requires merely that "Actions are being taken to improve the protection of our biodiversity and natural icons…" over a relatively tiny area of one million hectares, with no requirement that the changes have any enduring effect or be required to show any effect at all.[23]

The only credible performance indicator for Caring for Our Country should be the number of threatened species and communities being turned from declining to stable or recovering trend as a result of enduring conservation arrangements made under the scheme.

In light of research (Attachment 1), possibly the only action under Caring for Our Country likely to have resulted in genuine and lasting threatened species recovery was the expansion of strictly protected areas in the national reserve system, which remains grossly underfunded, representing a mere 10% of the entire Caring for Our Country budget.[24]

Alarmingly, this stand-out program has been axed in the latest conservation investment prospectus issued by the government.[25]

A major boost in funding of strategic growth of protected areas is likely to be the best way Caring for Our Country can work to prevent biodiversity loss.

Research shows that only 20-30% of threatened species reach a minimum standard for inclusion of habitat in protected areas. Remarkably, all species in Australia could achieve this standard by protecting only approx. 18% of Australia's land area, if protected areas were added strategically. [26]

If the EPBC Act was strengthened to require mandatory identification and protection of critical habitats, the urgent need for protected areas to fulfil this task might be abated somewhat.

(e) timeliness and risk management within the listings processes

Timeliness is a major issue. The EPBC Act listing process is slow and is not systematic in approach. The list of species and ecosystems actually threatened is likely to be much larger than the official EPBC Act lists due to process delays, lack of reviews of the existing lists (most taxonomic groups have not been systematically reviewed since the EPBC Act came into force) via action plans, but also lack of knowledge.

Species like the lemuroid ringtail possum of the Wet Tropics, are already declining due to climate change and other threats, but are not even listed and afforded the protections of the Act.[27]

The 2007 National Audit Office audit of the administration of the EPBCA found that the "list of threatened species is not sufficiently up to date."[28]

The State of the Environment Report 2006 identified that there is a 'lack of long term, systematic biodiversity information that would allow firm conclusions to be drawn about the details and mechanisms of the decline [of species in Australia]'[29] This should be addressed as a matter of urgency.

National Environmental Research Program ("NERP") funding should be prioritised to include extinction risk assessments for species assemblages and entire bioregions based on field survey work, to quantify extinction risk and population trends, and recommend changes to the lists directly to the Minister.

The role of the Threatened Species Scientific Committee should be to coordinate and certify the quality of the science of such assessments, rather than to do the actual assessments.

(f) the historical record of state and territory governments on these matters

States and Territories are often proponents of development projects and so have conflicts of interest in regard to protection of EPBC Act protected entities.

For example both Nathan Dam and Traveston Crossing Dam (stopped respectively by a court case and a federal government rejection under the EPBC Act), were projects of the

Queensland government. The James Price Point proposed gas hub is a project of the Western Australian government.

Recent attempts to delegate approval authority to the states would represent a significant weakening of the intent and objects of the Act. Far from delegation, the Act should be amended to remove existing provisions for delegation of approvals.

Given the decline in biodiversity noted in each state and territory, combined with increasing population pressures, land clearing, invasive species and climate change, now is not the time to be streamlining and minimising legal requirements in relation to threatened species assessment.

Further, assessments of impacts should not be the province of a proponent. Rather the commonwealth should commission independent, objective, scientific assessments of impacts, funded out of development application fees. Cost recovery should also be a key principle of EPBC Act implementation.

The current practice of proponents of projects commissioning their own assessments is not free of undue influence.

Nonetheless, as discussed above, the states have played an important role over the last decade in passing various vegetation protection laws. These have had a dramatic effect on reducing direct habitat destruction.

The states have also been the main engines of expansion of the national parks system, with commonwealth assistance through the National Reserve System program, with major benefits for threatened species.

The states also have their own provisions for listing species and ecosystems, and assessment and approval requirements for projects that impact state listed matters. To the greatest extent, these processes should complement rather than duplicate EPBC Act processes, ideally by the state and commonwealth cooperating through the Strategic Environmental Assessment and Bioregional Planning provisions of the EPBC Act, both of which provisions are too little used.

Comprehensive, cooperatively designed bioregional plans could provide adequate protection for all state and federal listed environment matters, define no go areas, areas for further assessment and areas pre-approved for particular types of development, with strong scientific support, that would satisfy the planning requirements of all three levels of government.

This could be a way to streamline the operation of the Act and remove inefficiencies that would not undermine the purposes of the Act to prevent biodiversity loss.

Yours sincerely,

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Conservation Director

ATTACHMENTS

1. Taylor MFJ, Sattler PS, Evans M, Fuller RA, Watson JEM, Possingham HP (2011) What works for threatened species recovery? An empirical evaluation for Australia. *Biodiversity and Conservation* 20:767-777
2. Submission of joint conservation organisations to the Hawke Review of the *Environment Protection and Biodiversity Conservation Act 1999.*

ENDNOTES

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1 Australian Network of Environmental Defender's Offices (2012) An Assessment of the Adequacy of Threatened Species and Planning Laws in all Jurisdictions of Australia. (to be published)

2 Australian Government *Biodiversity Hotspots* program webpage http://www.environment.gov.au/biodiversity/hotspots/index.html

3 The IUCN Red List of Threatened Species recognises 76 extinct mammals, with 21 of those from Australia. http://www.iucnredlist.org.

4 Woinarski,J.C.Z et al. (2011) The disappearing mammal fauna of northern Australia: context, cause and response. *Conservation Letters* 4, 192-201

5 *Assessment of Australia's Terrestrial Biodiversity 2008* http://www.environment.gov.au/biodiversity/publications/terrestrial-assessment/index.html

6 Scott et al 2010 http://onlinelibrary.wiley.com/doi/10.1111/j.1755-263X.2010.00096.x/abstract).

7 Dept. of Climate Change factsheet on land use, land use change and forestry http://ageis.climatechange.gov.au/Reports/2012_2010_AUSTRALIA_LULUCF.pdf

8 Cogger, H et al. (2003) *Impacts of Land Clearing on Australian Wildlife in Queensland*, WWF-Australia, Sydney.

9 Dunlop and Brown (2008) *Implications of climate change for the National Reserve System* http://www.csiro.au/files/files/pjg1.pdf and Steffen, W et al. (2009) *Australia's Biodiversity and Climate Change.* CSIRO Publishing, Canberra.

10 Williams and Price (2010) Impacts of red meat production on biodiversity in Australia: a review and comparison with alternative protein production industries. http://www.publish.csiro.au/paper/AN09132.htm

11 Williams and Price cited above

12 Evans et al 2011 http://www.fullerlab.org/wp-content/uploads/2011/08/Evans-et-al-2011.pdf.

13 Johnson CN et al. (2007) Rarity of a top predator triggers continent-wide collapse of mammal prey: dingoes and marsupials in Australia. *Proceedings of the Royal Society, B* 274, 341-346; Glen AS et al. (2007) Evaluating the role of the dingo as a trophic regulator in Australian ecosystems. *Austral Ecology* 32, 492-501; and Brook et al (2012) Effects of predator control on behaviour of an apex predator and indirect consequences for mesopredator suppression *J Anim Ecol*. doi/10.1111/j.1365-2664.2012.02207.x. But see also critique by Fleming et al. (2012) Seven considerations about dingoes as biodiversity engineers: the socioecological niches of dogs in Australia. *Australian Mammalogy* 34, 119 – 131.

14 van Bommel L, Johnson CN (2012) Good dog! Using livestock guardian dogs to protect livestock from predators in Australia's extensive grazing systems. *Wildlife Research* 39, 220–229.

15 Estes et al 2011 Trophic downgrading of planet earth. *Science* 333, 301-306 http://www.sciencemag.org/content/333/6040/301.short

16 Taylor MFJ et al. (2011) Attachment 1 and Bottrill M et al. (2011) Does recovery planning improve the status of threatened species? *Biological Conservation* 144, 1595-1601

17 Taylor M, Suckling KF, Rachlinski JJ (2005) The Effectiveness of the Endangered Species Act: A Quantitative Analysis. *BioScience* 55, 360-367.

18 Taylor et al 2005 cited above

19 Building Nature's Safety Net report http://www.wwf.org.au/news_resources/?2750/Building-Natures-Safety-Net-2011-The-State-of-Protected-Areas-for-Australias-Ecosystems-and-Wildlife

20 Australia's Biodiversity Conservation Strategy 2010-2030 http://www.environment.gov.au/biodiversity/strategy/index.html

21 Ecosystems are used here as shorthand for "ecological communities"

22 Aichi Biodiversity Targets http://www.cbd.int/sp/targets/

23 Caring for our Country 2009–2010 Report Card http://www.nrm.gov.au/about/caring/report-card/2009-10/highlights.html

24 Taylor MFJ et al 2011 Attachment 1 and Building Nature's Safety Net report http://www.wwf.org.au/news_resources/?2750/Building-Natures-Safety-Net-2011-The-State-of-Protected-Areas-for-Australias-Ecosystems-and-Wildlife

25 http://www.environment.gov.au/biodiversity/publications/prospectus/index.html

26 Watson JE et al (2010) The capacity of Australia's protected-area system to represent threatened species. Conservation Biology 25, 324–332 and Building Nature's Safety Net report http://www.wwf.org.au/news_resources/?2750/Building-Natures-Safety-Net-2011-The-State-of-Protected-Areas-for-Australias-Ecosystems-and-Wildlife

27 McMenamin, SK, Hannah L (2012) First Extinctions on Land in Hannah ed, *Saving a Million Species*, Springer NY pp 89-101

28 The Auditor General (2007) *2006–07 Performance Audit: The Conservation and Protection of National Threatened Species and Ecological Communities, Department of the Environment and Water Resources. Audit Report No.31*, Australian National Audit Office, Canberra.

29 As cited in the ANAO audit cited above.