



Committee Secretary
Senate Standing Committees on Environment and Communications
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Dear Committee Secretary

Senate Inquiry into Australia's Faunal Extinction Crisis

Thank you for the opportunity to respond to this Senate Inquiry into Australia's faunal extinction crisis. We have addressed the terms of reference and provided a list of our key recommendations in our submission attached below.

We hope this response is useful and the findings from this Inquiry lead to immediate and meaningful change so urgently needed to address this national crisis.

Sincerely

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TASMANIAN LAND CONSERVANCY

The Tasmanian Land Conservancy (TLC) is a not-for-profit, apolitical, registered environmental organisation that protects threatened species and their habitat on private land (www.tasland.org, ABN 88 743 606 934). Since establishing in 2001, the TLC is now one of the largest private landholders in Tasmania with conservation reserves extending over 25,000 ha. TLC reserves are permanently protected by a conservation covenant adhered to their title, many form part of the National Reserve System (NRS), some have World Heritage status, and all have accredited management plans informed by long-term ecological monitoring (www.tasland.org.au). In addition to owning and managing land, the TLC delivers on contract a Commonwealth Revolving Fund program and a Tasmanian Government stewardship and monitoring program for private covenanted properties.

KEY RECOMMENDATIONS

1. Implement key recommendations in the National State of the Environment Report (2016) for a national policy addressing major threats to biodiversity.
2. Ongoing loss and degradation of fauna habitat, especially clearing of high value conservation forest, is not being addressed as the most significant threat driving fauna extinction.
3. National Threat Abatement Plans must receive greater priority under all levels of government and require commensurate funding to be effective.
4. Recognising the cost and complexity of ecosystem repair and mitigation should be taken into account to address the fauna extinction crisis now while we still can.
5. The Commonwealth needs to significantly increase effort towards meeting our international commitments under Aichi Biodiversity Target 11 and Aichi Biodiversity Target 12, as a signatory of the Convention of Biological Diversity.
6. The National Biodiversity Strategy and National Threatened Species Strategy should reflect a stronger commitment to addressing Australia's extinction crisis and threatening processes and contain a coordinated guiding framework with measurable goals, objectives, actions and targets which effectively engage all stakeholders in its implementation.
7. The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) must be strengthened by streamlining assessment decisions, strengthening recovery actions and avoiding impacts.
8. Establish a new national critical habitat register which applies across Commonwealth, State and Territory tenures to ensure that critical habitat is registered within 12 months of a species listing and is automatically uploaded from recovery plans.
9. Reinstating the NRS program is essential to achieve a Comprehensive, Adequate and Representative (CAR) reserve system and increase ongoing stewardship support for existing protected areas to address the fauna extinction crisis.
10. Support the expansion and ongoing management of Indigenous Protected Areas (IPAs); and any mechanisms for shared learning opportunities between traditional knowledge and modern science to address the fauna extinction crisis.
11. Funding for threatened species recovery is not commensurate with the magnitude of the problem and requires a significant and sustained budgetary increase.
12. The Commonwealth engage with the Wentworth Group of Concerned Scientists and others to develop new models to fund threatened species recovery.
13. Seek specialist advice on establishing threatened fauna monitoring locally and nationally at a landscape scale to better inform species status, ecosystem stability and the effectiveness of land management.
14. Strengthen compliance mechanisms between National, State and local governments for threatened fauna protection.

ADDRESSING THE TERMS OF REFERENCE

a) the ongoing decline in the population and conservation status of Australia's nearly 500 threatened fauna species;

The TLC is acutely aware of Australia's faunal extinction crisis including Tasmania's parlous record of 6 endemic fauna species extinct to-date.

The growing number of fauna added to National and State threatened species legislation clearly shows that current recovery processes are not working and that unless major changes are made, more extinctions are inevitable.

A plethora of scientific literature spanning decades has identified the cause, cost and actions needed to remedy threatened fauna decline. In the overwhelming majority of cases vegetation loss and degradation are the primary cause of extinction risk with feral pests, disease, climate change, etc. the secondary drivers of fauna decline. Ongoing habitat clearing remains as the single most significant threat to priority fauna. Despite these impacts being the subject of numerous National Threat Abatement Plans there remains a lack of coordinated or cross jurisdictional support for their effective implementation. The National State of the Environment Report (2016) identified that none of these major pressures have decreased between the two reporting periods and that Australia needs new approaches if it is to address this downward trajectory. A key finding in that report was that we lack *"an overarching national policy that establishes a clear vision for the protection and sustainable management of Australia's environment"* and that national leadership is required to address threats to species and biodiversity.

A recent publication on recovering Australia's threatened species (Garnett *et al.* 2018), comprising 32 chapters authored by Australia's leading practitioners, identified:

- Community involvement and partnerships are critical and a key marker for success and longevity of recovery efforts
- Embedding reforms in government legislation and policy are essential
- Research and ongoing monitoring are vital components to drive and inform the recovery process, and that
- If we make changes now, recovery is possible and there is hope

Recommendation 1: Implement key recommendations in the National State of the Environment Report (2016) for a national policy addressing major threats to biodiversity.

Recommendation 2: Ongoing loss and degradation of fauna habitat especially clearing of high value conservation forest is not being addressed as the most significant threat driving fauna extinction.

Recommendation 3: National Threat Abatement Plans must receive greater priority under all levels of government and require commensurate funding to be effective.

b) the wider ecological impact of faunal extinction;

There are compelling cases demonstrating the impact of trophic cascades when keystone species are lost from the ecosystem. This principle has been demonstrated time and time again especially

in marine ecosystems where for example the loss of symbionts from coral reefs during stress-related bleaching events can lead to a total collapse of the entire reef system (Baker 2003).

Fonseca (2001) showed that the stability in natural ecosystems modulates depending on their richness and the functional role played by its composite species. In some cases extinction will have no effect at all if the role of the species lost is assumed by others, but extinction can have devastating ecosystem effects if the species lost performs a unique function or if services are compromised. This finding is reflected in two Tasmanian fauna examples.

(1) The restoration program for Tasmania's Macquarie Island was reliant on complete removal of rabbits, rats and mice in an integrated pest eradication program because the risk of any one pest species remaining could trigger a trophic cascade meaning time, money and effort were wasted.

(2) Tasmania is currently experiencing ecosystem de-stabilisation due to the functional loss of two apex predators, the extinct Thylacine and now reduced Tasmanian devil populations due to Devil Facial Tumour Disease. Over the past two decades significant shifts in predatory species especially feral cats now impacting critical weight range species such as bandicoot and bettong mean that Tasmania's status as a safe haven is perilously at risk.

The financial cost and complexity of recovering destabilising ecosystems is orders of magnitude greater than single species recovery and requires collaborative effort across entire landscapes. Recognising the cost and complexity of ecosystem repair is yet another imperative to redress the fauna extinction crisis now while we still can.

Recommendation 4: Recognising the costs and complexity of ecosystem repair should be taken into account to address the fauna extinction crisis now while we still can.

c) the international and domestic obligations of the Commonwealth Government in conserving threatened fauna;

As a signatory to the International Convention on Biodiversity –Australia is failing in its obligations to meet:

- Aichi Biodiversity Target 11: for the protection of at least 17% of terrestrial and inland water and 10 % of coasts and marine areas of particular importance for biodiversity and ecosystem services in an ecologically represented and well connected system of protected areas.
- Aichi Biodiversity 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.

The National Threatened Species Strategy, identifying 20 mammals, 20 birds and 30 plants leaves the vast majority of nationally endangered fauna languishing without support or recognition. Progress on Year 2 of its delivery demonstrates just how few have even reached meaningful on-ground action translating to any sustained recovery. Similarly, the Commonwealth's National Biodiversity Strategy does not reflect a strong commitment to address Australia's extinction crisis, or contain a guiding framework with measurable goals, objectives, actions and targets that embrace and enlist the assistance of others especially private landholders.

Recommendation 5: The Commonwealth needs to significantly increase effort towards meeting our international commitments under Aichi Biodiversity Target 11 and Aichi Biodiversity Target 12, as a signatory of the Convention of Biological Diversity.

Recommendation 6: The National Biodiversity Strategy and National Threatened Species Strategy should reflect a stronger commitment to addressing Australia's extinction crisis and threatening processes, and contain a coordinated guiding framework with measurable goals, objectives, actions and targets which effectively engage all stakeholders in its implementation.

d) the adequacy of Commonwealth environment laws, including but not limited to the Environment Protection and Biodiversity Conservation Act 1999, in providing sufficient protections for threatened fauna and against key threatening processes;

Loop holes, lack of clarity and onerous requirements mean that a review of Australia's national environmental laws and Tasmania's *Threatened Species Protection Act 1995* is long overdue. A list of legislative deficiencies were recently highlighted as key barriers to protecting the critically endangered swift parrot in Tasmania (EDO Tasmania 2016) and many of these shortfalls apply more widely.

1. Streamlining assessment decisions

- Fauna species listed on the IUCN Red List in the category of Critically Endangered must be automatically upgraded to that status under the EPBC Act.
- The Minister should have clear emergency listing powers in relation to fauna species and communities considered to be critically endangered.
- The Minister must act on the advice from the Threatened Species Scientific Committee to list a species or community as Critically Endangered.
- Commonwealth, State and Territory threatened species assessment criteria must be synchronised to allow for reciprocal recognition of assessments.
- State and Territory schedules of endemic threatened fauna must be automatically uploaded to the National Act.

2. Strengthening recovery actions

- Within 6 months of a fauna species being listed as endangered, a recovery plan must be adopted for the species or community (or revised, if one already exists), unless the Threatened Species Scientific Committee advises that a plan is not required.
- Recovery plans must include clear performance indicators, and the Department of Environment must report against these indicators in its annual report.
- The Commonwealth must be required to "use its best endeavours" to get a State or Territory government to implement recovery plans and threat abatement plans within its territory.
- Commonwealth funding for environmental and scientific research programmes should give priority to proposals that will further the survival of an endangered fauna species.

3. Avoiding impact

- The *Significant Impact Guidelines* should provide that any adverse impact on a critically endangered species or ecological community, including any adverse impact on listed critical habitat, will be "significant".
- The Minister must seek, and act consistently with, the advice of the Threatened Species Scientific Committee in relation to any proposed actions which may adversely impact threatened fauna.
- The Minister must be able to vary or revoke an approval where a threatened fauna species impacted by the approved activity is 'up-listed' in threat status.

Recommendation 7: The *Environment Protection and Biodiversity Conservation Act 1999* must be strengthened by streamlining assessment decisions, strengthening recovery actions and avoiding impacts.

e) the adequacy and effectiveness of protections for critical habitat for threatened fauna under the Environment Protection and Biodiversity Conservation Act 1999;

A popular article by Cox (2018) stating that no critical habitat has been registered under the EPBC Act 1999 for more than a decade informed the Australian public on the ineffectiveness of this protective legislative mechanism. Equally compelling is that no critical habitat has ever been registered under Tasmania's *Threatened Species Protection Act 1995* since the Acts inception despite it containing clear provision to do so. The lengthy onerous task of legislatively defining critical habitat, seeking relevant stakeholder agreement and approvals, compiling a submission through a lengthy legal process with potential for political intervention, has meant this often urgent protective legal mechanism is rarely, if ever invoked and is not achieving its intended form of protection.

This could be addressed by establishing a new national critical habitat register applicable across all Commonwealth, State and Territory land tenures to ensure that critical habitat is registered within 12 months of a species being listed. Recovery plans for critically endangered species must identify critical habitat which could be automatically entered on the Critical Habitat Register.

Recommendation 8: Establish a new national critical habitat register which applies across Commonwealth, State and Territory tenures to ensure that critical habitat is registered within 12 months of a species listing and is automatically uploaded from recovery plans.

f) the adequacy of the management and extent of the National Reserve System, stewardship arrangements, covenants and connectivity through wildlife corridors in conserving threatened fauna;

The provision of up to two-thirds of the purchase price by the Australian Government for strategic land acquisitions through the NRS was the catalyst for growth in Private Protected Areas (PPAs) in Australia. Access to NRS funds not only facilitated better long-term protection of some of Australia's most endangered fauna but escalated significant leverage from philanthropic sources stimulating growth of NGOs within the sector (e.g. Australian Wildlife Conservancy, Bush Heritage Australia, Tasmanian Land Conservancy, etc.). The contribution of NGOs through land acquisition and the facilitation of conservation covenants on private land are critical contributions towards Australia's conservation challenge and reflect the enormous willingness of private landholders to play a role in this process. Despite its success the NRS program was dismantled in late 2012 and since then the overarching national approach to the establishment of PPAs has declined and in Tasmania support for private covenants has virtually ceased.

Many key publications have evaluated the enormous contribution the NGO sector, through the NRS and PPA programs make to fauna conservation in Australia (Pasquini *et al.* 2011; Fitzsimons 2015; Taylor 2017). This contribution translates across all conservation facets including being financially the most cost effective and efficient means to protect critical habitat, deliver on-ground works and increase philanthropic investment in the conservation sector. Tasmania currently has 860 private land covenants protecting over 100,000 ha of significant fauna habitat. The Protected Areas on Private Lands program was the longest running covenanting program in Tasmania and through voluntary conservation covenants alone (i.e. no incentive funds) registered 188 properties over 32,680 ha, at an average cost of \$190 per hectare based of the overall investment in the program.

The continued growth of NGOs in the face of declining government support has resulted in increased capacity to deliver private land conservation by leveraging philanthropic and corporate involvement and over the past five years, the major land conservancies have permanently protected over 500,000 ha of important fauna habitats. The direct services provided by private conservation landholders by

contributing to pest animal control, habitat restoration, weed removal and provision of ecosystem services adds cumulative impact to the fauna recovery effort and exemplifies what can be achieved by working together. With the use of expert GIS tools priority corridors and habitat linkages can be expanded on private land and add to the CAR reserve network across Australia. Reinstating the NRS grants program and commensurate support for mechanisms such as perpetual conservation covenants are essential if we are to expedite the fauna recovery process and assist the private landholder who has significantly invested in this process.

The Government must support the resumption and strategic expansion of Australia's NRS to protect threatened species habitats. Funding should include grants to government or non-government partners for strategic acquisitions; and grants for establishing and managing IPAs and protected areas on private land secured by covenants.

Recommendation 9: Reinstating the NRS program is essential to achieve a Comprehensive, Adequate and Representative (CAR) reserve system and increase ongoing stewardship support for existing protected areas to address the fauna extinction crisis.

g) the use of traditional knowledge and management for threatened species recovery and other outcomes as well as opportunities to expand the use of traditional knowledge and management for conservation;

The Tasmanian Land Conservancy respects and values Australia's First People as the Traditional Owners of this land and their enduring knowledge on its protection. Dedicated IPAs represent defined connections to country; all associated bio-cultural resources; local avian, terrestrial and marine ecologies; flora and fauna (including threatened species); and ongoing custodial obligations arising from living Indigenous laws and inherited traditions. IPAs are cared for by Traditional Owners under holistic bio-cultural management principles guided by continuing Indigenous knowledge systems.

We urge the Commonwealth to expand IPAs supporting Aboriginal and Torres Strait Islander peoples as professional managers of their land and sea countries in the contemporary context. We acknowledge the proven enabling benefits of IPAs and dedicated Ranger programs which deserve and require long term funding commitments. We strongly support any opportunities to foster and share knowledge between Aboriginal people and other land managers in whatever capacity or context demonstrated as beneficial to addressing this faunal extinction crisis.

Recommendation 10: Support the expansion and ongoing management of IPAs; and any mechanisms for shared learning opportunities between traditional knowledge and modern science to address the fauna extinction crisis.

(h) the adequacy of existing funding streams for implementing threatened species recovery plans and preventing threatened fauna loss in general;

Federal funding for threatened species conservation has been in decline over the past decade. A recent retrospective of funding for threatened recovery programs has found the Australian Government's funding has been *ad hoc*, short term and not commensurate with the magnitude of the problem (Garnett *et al.* 2018). Few fauna recovery plans have received adequate funding to ensure their implementation either in part or full.

The National Threatened Species Strategy identifies 20 mammal and 20 bird species as the priority fauna for attention despite there being over 500 listed threatened fauna of which 240 are endangered or critically endangered. In the Year 2 Progress Report of that Strategy a budget of \$256 million across 3.5 years equates to approx. \$73 million per year in funding across 1206 projects. This equates to around \$61,000 per project per year spread across the National Landcare Program, 20 Million Trees and Green Army, meaning significantly less funding goes specifically to priority threatened species projects due to its dilution across many players with varying objectives but only \$5 million is dedicated to a national Threatened Species Recovery Fund.

The Wentworth Group of Concerned Scientists (2015) has calculated the funds required to restore our environment back to good health is in the order of \$5 Billion per year for 34 years, or between 0.5 and 1.0 per cent of GDP over 20 years. The Wentworth Group proposes innovative ways to achieve this funding through changes to, for example stamp duty, land tax and local government rates and a price on carbon. At the Threatened Species Summit (Melbourne 2015) suggestions such as crowd funding to establish an endowment fund for threatened species conservation were mooted as alternatives to government funding cycles and to provide stability and certainty over long time frames. Increasing investment in partnerships with the private sector through mechanisms such as the NRS grants and perpetual covenants on private land could also increase the return on dollar investment. Development of a national framework for environmental economic accounts, to help farmers and the community understand the value of natural capital and the economic and social consequences of its decline could create a market value for biodiversity to contribute to its conservation and proper management.

Recommendation 11: Funding for threatened species recovery is not commensurate with the magnitude of the problem and requires a significant and sustained budgetary increase.

Recommendation 12: The Commonwealth Government engage with the Wentworth Group of Concerned Scientists and others to develop new models to fund threatened species recovery.

i) the adequacy of existing monitoring practices in relation to the threatened fauna assessment and adaptive management responses;

Long-term ecological monitoring is fundamental to evidence-based environmental decision making (Lindenmayer & Likens 2010) and remains a consistent challenge in terms of our poor record with longevity, consistency and answering the questions needed. But now more than ever we need high quality, question driven, statistically rigorous monitoring to show change in the status of fauna due to our conservation effort. The lack of data and information from long-term monitoring of biodiversity is universally acknowledged as a major impediment to biodiversity conservation and understanding our success or failures.

Except for a small number of iconic threatened fauna, and probably more-so endangered species we lack consistent monitoring capable of enabling us to determine population trends or the effectiveness of our management and apart from citizen science monitoring through for example, the Atlas of Australian Birds, few other fauna monitoring programs exist with any longevity. The Tasmanian Land Conservancy has invested in fauna monitoring across its entire reserve estate and in five years has been able to establish baseline and now some trend data for a range of mammal species including threatened and critical weight range fauna. With technology like camera traps, song meters and temporal monitoring stations etc. never before have we been able to more efficiently address this deficiency in our knowledge base.

Recommendation 13: Seek specialist advice on establishing fauna monitoring locally and nationally at a landscape scale to better inform species status, ecosystem stability and the effectiveness of land management.

k) the adequacy of existing compliance mechanisms for enforcing Commonwealth environment law;

Strengthening a number of compliance mechanisms between State and Territory governments will improve collaboration on threatened fauna conservation.

- The Minister must not be able to delegate approval powers to a State or Territory government for actions which will have, or are likely to have, a significant impact on threatened fauna. All actions likely to impact on critically endangered species or ecological communities must be assessed by the Commonwealth Minister.
- The Commonwealth should promote the implementation of best practice laws for the protection of threatened species by States and Territories, including through planning and building laws.
- The Commonwealth could consider entering into conservation agreements under the EPBC Act with State and Territory Governments to secure protection for critically endangered species and ecological communities.
- Ambiguity in roles and responsibilities in the referral process for development projects with potentially significant impact results in a failure to refer.
- Fast tracking of projects designated of State Significance reduces the capacity to ensure thorough and transparent assessment of nationally threatened fauna in the process.

Recommendation 14: Strengthen compliance mechanisms between National, State and local governments for threatened fauna protection.

References Cited

- Baker AC (2003) Flexibility and Specificity in Coral-Algal Symbiosis: Diversity, Ecology, and Biogeography of *Symbiodinium*. Annual Review of Ecology, Evolution, and Systematics 34:661-689.
- Cox L (2018) Australia has 1,800 threatened species but has not listed critical habitat in 10 years. The Guardian Weekly Newspaper March 2018, <https://www.theguardian.com/weekly>
- EDO Tasmania (2016) Critically Endangered, Under-Protected: Options to improve the protection of critically endangered species under national environmental laws. Commissioned by the Bob Brown Foundation – available on www.edotas.org.au
- Fitzsimons JA (2015) Private protected areas in Australia: current status and future directions. Nature Conservation 10: 1–23. doi: 10.3897/natureconservation.10.8739
- Fonseca RC, Ganade G (2001) Species functional redundancy, random extinctions and the stability of ecosystems. Journal of Ecology 89: 118-125.
- Garnett S, Latch P, Lindenmayer D, Woinarski J (Eds) (2018) Recovering Australian Threatened Species: a book of hope. CSIRO Publishing, Victoria, Australia.
- Lindenmayer DB, Likens GE (2010) Effective ecological monitoring. CSIRO Publishing, Victoria, Australia.
- Pasquini L, Fitzsimons JA, Cowell S, Brandon K, Wescott G (2011). The establishment of large private nature reserves by conservation NGOs: key factors for successful implementation Oryx 45: 373-380.
- Taylor MFJ (2017) Building Nature's Safety Net 2016: State of Australian terrestrial protected areas 2010-2016.' WWF-Australia, Sydney.
- Wentworth Group of Concerned Scientists (2015). Blueprint for a Healthy Environment and a Productive Economy, June 2015