# Submission to the Senate Committee on the Effectiveness of Threatened Species and Ecological Communities' Protection in Australia

Professor Hugh Possingham FAA
Associate Professor Michael McCarthy
Australian Research Council Centre of Excellence for Environmental Decisions[a]
National Environmental Research Program Environmental Decisions Hub[b]

This submission to the Senate Committee on the *Effectiveness of Threatened Species and Ecological Communities' Protection in Australia* addresses the listing, management and recovery of threatened species (Terms of Reference a, b and e[1]) and more generally how effectively governments are protecting threatened species in Australia.

All levels of government, the private sector, NGOs and individual community members have committed significant funding and resources to protect threatened species and ecological communities. These commitments include setting aside protected areas, regulation, incentive schemes, management actions, and plans for the recovery of individual species and ecological communities.

These efforts to avoid species decline and extinctions are not working[2]. If Australia continues with the current suite of investments and actions the rate of extinction will remain more than 100 times the "normal" rate, and 10 times the acceptable rate[3].

We identify four tractable problems within the current arrangements, and provide well-researched solutions that would increase our capacity to reduce the rate of extinction:

1. The budget for threatened species management is not spent efficiently. Existing approaches to increase efficiency can be easily applied and have been successfully implemented elsewhere.
2. The current budget is not enough to save all species from extinction, but if we allocate resources more efficiently, only a modest increase is needed.
3. Species are declining and going extinct while lengthy listing and ineffective planning processes are underway. Implementing inexpensive and timely strategies will reduce avoidable extinctions.
4. The current protected areas are inadequate to protect threatened species unless coupled with good species-specific management outside reserves.

We would welcome the opportunity to appear before the inquiry committee to speak to this submission and other important issues such as monitoring, evaluation and how to act in the face of uncertainty. Additional supporting information can be supplied if required. Please find below an expansion of these key points.

## 1. Spending money efficiently

Given a limited budget for threatened species management, we must prioritise which species to protect and which actions to undertake. Traditional prioritisation approaches are not cost-effective, and ignore three crucial factors:

1) the importance of defining a clear *objective*. For example, is the objective to avert extinctions yet allowing for the continued declines of other species or is it to recover species to remove them from the threatened list (we cannot currently do both);
2) the cost of management; and
3) the likelihood that the management will succeed.

Our research shows that rational use of cost and success information in prioritisation substantially increases the number of species managed[4]. The use of a rational prioritisation approach, inclusive of conservation costs and likelihood of success, will deliver the greatest outcomes for threatened species[4,5]. This approach, developed by our researchers over the past few years, has been successfully used to more than double the number of species that will be secured.

## 2. How much more money is needed?

Current global spending on conservation will not adequately protect biodiversity[6]. Our research shows that in Australia, current spending on protecting threatened birds[7] and managing the Kimberley region of north-western Australia[5] is not enough to save species from extinction. For example, approximately $3 million is spent annually on conserving threatened Australian birds. This is less than 1% of the weekly defense budget for Australia.

The good news is that evidence shows that conservation actions can be successful[7]. If conservation spending is invested wisely, a relatively modest increase in spending can make a real difference.

For example, tripling the resources allocated to Australia's threatened bird species to $10 million per year could reduce the number of extinctions over the next 80 years to almost zero, and reduce the number of threatened species by 15%[7]. In the Kimberley, the likely functional loss of 45 mammals, birds, and reptiles over the next 20 years can be averted with an annual investment of $40 million on actions such as managing fire and introduced herbivores across tenure[5].

The majority of actions to protect species need not compete with existing land use outside protected areas; in fact research suggests that there will be a suite of co-benefits, including improved agricultural production, tourism and livelihoods[5].

## 3. Current processes are too slow and ineffective

The failings of effective management of threatened species can be partly attributed to the slow process of listing threatened species on the Environmental Protection and Biodiversity Conservation Act and developing, adopting and implementing recovery plans for the imperiled species.

For those species that are listed on the Act, a Recovery Plan is required that would ensure its recovery. However, since the implementation of the Act in 1999, over 13 years ago, Recovery Plans have been adopted for only 30% (508 species) of the listed species[8]. Unfortunately even for those lucky few, our research has shown that recovery planning has no discernible impact on recovery[9].

The recovery planning process needs to be completely overhauled; we recommend that recovery plans be replaced with a national-level strategic planning process where short action plans are designed for each species to meet specific conservation objectives. This process can be completed within a short time frame[4,10] and can provide a crucial resource for identifying priorities, sourcing funding and evaluating management. Further, there must be a commitment to fund these action plans.

To resolve the delays in listing and developing plans to recover species, governments need to improve the process of listing species and planning for recovery. We recommend that species be listed on state and Commonwealth registers by adopting the threat status of species on the IUCN Red List of Endangered Species rather than duplicating the expensive and slow listing process.

## 4. The current protected areas are inadequate

Effective management of threatened species requires habitat protection, but habitat protection alone is not sufficient. Our research shows that protected areas contribute to stabilising or recovering some threatened species[11]. However, we found that 13% of threatened species in Australia occur entirely outside protected areas and that 80% of species do not have enough habitat protected for their survival[12]. Additionally, there is increasing evidence of species declines within protected areas[13,14].

A suite of management actions should be considered, even within protected areas, when deciding how and where to protect threatened species. There are tools and methods to deliver efficient conservation management at the landscape scale.

## References and notes


1 (a) management of key threats to listed species and ecological communities;
(b) development and implementation of recovery plans;
(e) timeliness and risk management within the listings processes.

2 http://www.environment.gov.au/cgi-tmp/publiclistchanges.198d50c14e8157c8ac3e.html. Australian mammals and birds continue to decline in abundance and range. While 263 species have been added to the EPBC Act threatened species list in the last five years , 23 have been delisted . The vast majority of those listed and under the protection of the Act are in decline (Taylor et al 2011). Twelve species have been listed as extinct since 2001.

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[a] Research by CEED tackles the key gaps in environmental decision-making,
Spatial Planning for Landscape Restoration and Management
Biodiversity Decisions in Dynamic Systems
Rapidly-transforming Landscapes
http://ceed.edu.au

[b] Biodiversity underpins the cultural and economic prosperity of Australia. The NERP Environmental Decision hub was funded through the Australian Governments National Environmental Research Program (NERP), for four years from 2011 to 2014. We will carry out multidisciplinary, applied research in decision science for biodiversity conservation. The research will result in new tools, data, models and authoritative syntheses that enable Australian governments to make evidence-based decisions that protect biodiversity. Our research program is structured around delivering outcomes on each of the five NERP research priorities: values, ecosystems, threats, sustainable use and markets."

Our major research themes are:

1. Values: Understanding major drivers for maintaining biodiversity
2. Understanding function/monitoring ecosystem health
3. Threats: building resilience for evolving threats
4. Sustainable use of biodiversity and ecosystems
5. Biodiversity economics and markets

http://www.nerpdecisions.edu.au