SENATE STANDING COMMITTEE ON ENVIRONMENT AND COMMUNICATIONS

The effectiveness of threatened species and ecological communities' protection in Australia

Submission by Dr Andrew A Burbidge

Background

I have had a long career working on threatened species, both in conservation agencies and in a private capacity. I worked for a series of Western Australian conservation agencies as a scientist and manager for 33 years. During that time, I was Director of Science and Director, Threatened Species and Communities, in Western Australia. I have been a member of several Scientific Committees. I chaired the Commonwealth Endangered Species Scientific Subcommittee and the Endangered Species Advisory Committee set up under the former *Endangered Species Protection Act 1992* from 1992 to 1998 and currently chair the Western Australian Threatened Species Scientific Committee. I have been a member of Commonwealth expert committees set up to evaluate the effect of climate change on Australia's biodiversity and to evaluate the issues associated with biodiversity loss on Christmas Island. I was a member of the Board of Directors of WWF-Australia for six years.

I am currently co-drafting 'The Action Plan for Australian Mammals 2012', which will be published by CSIRO Publishing in 2013. Draft conservation summaries for >250 terrestrial taxa (species and subspecies) of Australian mammals by Professor Woinarski and I are currently under review by >150 experts around Australia. Drafts for marine mammal taxa, by Professor Peter Harrison, will be available for review shortly.

Comments on Terms of Reference

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

The current responses to listings of 'Key Threatening Processes' is inadequate. Listings of threats such as 'Dieback caused by the root-rot fungus (*Phytophthora cinnamomi*)' and 'Predation by feral cats' (both major, insidious and ongoing threats to large numbers of species) have not resulted in significant, targeted scientific research funding or large-scale adaptive management projects to ameliorate the threats. The exception, probably, is 'Incidental catch (or bycatch) of seabirds during oceanic longline fishing operations'. There are attempts to manage these threats, but they are local and poorly resourced.

There have been effective broad-scale and limited-scale responses to some key threats, 'Western Shield' and 'Arid Recovery' being a good examples, as is the work of the Australian Wildlife Conservancy in fencing large areas ('mainland islands') to conserve some threatened mammals by excluding foxes and feral cats. Without adequate resourcing, the key threats that affect a wide variety of Australian species will not be ameliorated. Properly resourcing such work is likely, in many cases, to make recovery plans much more effective. Australia is recognised internationally as having many excellent conservation biologists, but without support they cannot contribute as well as they might.

The way forward is to focus on a small number of pervasive, key threats that affect large numbers of species and adequately resource targeted science and adaptive management.

(b) development and implementation of recovery plans

The wording of the EPBC Act, which requires recovery plans to be prepared, but does not require any independent monitoring of their effectiveness, has resulted in resources being committed to drafting plans that have never been implemented, with no Minister or agency being held accountable. Recovery Plans are necessary and can be very effective when implemented properly and coordinated by Recovery Teams that

include relevant experts and independent members. (See Martin *et al*. 2012[1] for a comparison of the effectiveness of recovery plans and teams for the Christmas Island Pipistrelle, now extinct, and the Orange-bellied Parrot, now critically endangered, and the lessons to be learned.)

There have been significant success stories. There has also been criticism of the effectiveness of recovery plans, much of it directed solely at an evaluation of whether the species has had its legal listing changed and ignoring whether implementation has stabilised a previously-declining species. Much of the criticism includes no critical analysis of the biology of the species concerned (fecundity, life history, etc.) or the pervasiveness of the threats. Some threatened species, for example, are long-lived and have low breeding rates, e.g. black-cockatoos, western swamp tortoise, and the usual five-year recovery plan can not succeed within that time frame.

Unless Recovery Plans are simple, workable, resourced, implemented and independently monitored, Australia's' extinction rate, already bad, will get worse.

(c) management of critical habitat across all land tenures;

The critical habitat provisions of the EPBC Act have not been used, so no useful comments can be made. Many recovery plans identify critical habitat but that identification has had little or no effect as most is not on Commonwealth land.

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

It is easy to say that funding for threatened species and ecological community recovery is inadequate. That is self-evident. In recent times, at the Commonwealth level, there has been more emphasis on 'landscape scale' conservation rather than species conservation, with pendulum swings in resourcing. While broad-scale conservation is needed, the pendulum swung too far away from species work – both are needed and to some extent complement each other, so long as the broad-scale work is targeted towards the major threats to species.

State and Territory funding has also varied between jurisdictions, in quantity and targets. Threatened species conservation should be a truly national commitment, recognised in policy and legislation (and probably in the Constitution, as is the case with some other nations). Current attempts to prepare 'State of the Environment' reports do not properly measure threatened species rates of extinction, decline or recovery.

(e) timeliness and risk management within the listings processes

The threatened species listing processes have been inefficient and uncoordinated. The current list of threatened mammals under the EPBC Act was inherited from the *Endangered Species Protection Act 1992*, which in turn inherited the list developed by the then Ministerial Council in the 1980s. It has never been reviewed. Our initial evaluations of the status of Australian mammals indicate that approximately 80 changes to mammal listings are required; this may change slightly after expert reviews, but not substantially. The recent 'Action Plan for Australian Birds 2010'[2] found a similar poor concurrence between the list and actual status. The status of the lists of other animals is doubtless similarly out of kilter with reality. The list of threatened ecological communities is widely known to be very incomplete. This reflects

[1] Martin, T.G., Nally, S., Burbidge, A.A,, Arnall, S., Garnett, S.T., Hayward, M.W., Lumsden, L., Menkhorst, P., McDonald-Madden, E., and Possingham, H.P. (2012). Acting fast helps avoids extinction. *Conservation Letters* **5**, 274-280. doi: 10.1111/j.1755-263X.2012.00239.x

[2] Garnett, S.T., Szabo, J.K., and Dutson, G. (2011). 'The Action Plan for Australian Birds 2010'. (CSIRO Publishing: Melbourne.)

poorly on Australia's ability to properly manage threatened species, noting that most decisions about resource allocation are based on the lists as are requirements on development companies to conduct environmental impact assessment.

Moves though COAG to improve coordination of threatened species lists between the Commonwealth and the States and Territories are welcome, but will not be fully effective unless national re-evaluations are regularly undertaken, such as 'The Action Plan for Australian Birds 2010' (Garnett *et al*. 2011) and our ongoing work.

Current procedures for amending the EPBC Act threatened species list are cumbersome and bureaucratic, and the voluntary Threatened Species Scientific Committee members find it difficult to keep up with the current workload generated by public nominations, let alone undertake comprehensive reviews of the list. Such reviews need to be commissioned externally and conducted by respected experts in the particular taxonomic group. Professors Woinarski and Harrison and I are drafting the mammal action plan—a major task—pro bono.

Much of the duplication between federal and State/Territory listing processes could be removed by implementing some of the recommendations of the Hawke Report, particularly though an agreement between the Commonwealth and the States and Territories that allows changes to the EPBC Act list to be recommended by properly-constituted, independent scientific committees set up by the States and Territories, for taxa that are endemic to their jurisdictions, leaving the Commonwealth Threatened Species Scientific Committee with the task of dealing with species that cross jurisdictional boundaries and species restricted to marine areas and external Territories. For example, Western Australia has such a Scientific Committee and most of the terrestrial species and subspecies listed under Western Australian legislation do not occur in other States. However, Western Australia's legislation relating to Threatened Species and Ecological Communities is out-dated and lacks many of the provisions now considered standard, and its scientific committee is a non-statutory Ministerial advisory committee. However, some States list only within jurisdictional boundaries (e.g New South Wales) and others have no independent scientific committee.

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

Most progress in conserving threatened species has been the result of State and Territory initiatives. In most cases, it is clear what science and management actions are required; the limitation is resources. State and Territory governments, like the Commonwealth, have allocated limited resources to threatened species conservation. The on-again, off-again funding from the Commonwealth has not helped maintain programs, particularly those that need to run in the long term. Many scientists and managers are now employed on short-term contracts, meaning that corporate knowledge is declining. Some departments are now managed at senior levels by people who have no expertise in the subject, as is often the case also at the Commonwealth level.

(g) any other related matter

Australia is one of only 17 megadiverse countries – a group of countries that harbour more than 70% of the Earth's species and are therefore considered extremely biodiverse[3]. Few of these countries have an advanced economy. South-west Australia is one of 34 'Biodiversity Hotspots' world-wide[4]. Again, few of these are in developed countries. Thus we have a special responsibility to conserve our natural heritage, not only for ourselves and future generations of Australians, but for the world. To not properly conserve our biodiversity is, or should be, unthinkable.

[3] http://en.wikipedia.org/wiki/Megadiverse_countries
[4] http://www.conservation.org/where/priority_areas/hotspots/Pages/hotspots_main.aspx