

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

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Thank you for the opportunity to submit to this inquiry. It is an important inquiry.

We are failing. The legal, regulatory and political structures designed to prevent the extinction and decline in the species that make Australia unique are failing. At some specific levels declines have been reversed, habitat loss slowed and recoveries have occurred, but this should not mislead us into thinking that either the system as a whole is working or even that it is capable of working as it needs to.

### The Big Picture

*As for many developed countries Australia has had widespread loss or degradation of natural habitats and natural ecological processes (Woinarski et al. 2007; Lindenmayer et al. 2008). As a result 13% of Australia's known terrestrial vertebrate species are now formally listed as threatened under Australia's national species legislation (The "Environmental Protection and Biodiversity Conservation Act" or EPBCA; Department of the Environment Water Heritage and the Arts 2009a). Many other native species not yet considered threatened have collapsing distributions and ongoing declines in abundance (Mackey et al. 2008; Kingsford et al. 2009).*

Taylor et al, *What works for threatened species recovery? An empirical evaluation for Australia.* Biodivers Conserv (2011) 20:767–777

In virtually every State of the Environment Report since its inception in 1996, three trends stand out:

1. Biodiversity remains in decline
2. Habitat quality and amount remain in decline
3. Ignorance, Lack of data, inconsistency between jurisdictions and ignorance remain major problems

*We have limited information on the state of many individual species or groups of species. However, the evidence from changes in extent, composition and quality of vegetation communities, and from case studies on selected species, points towards continuing decreases in population sizes, geographic ranges and genetic diversity, and increasing risks of population collapses in substantial proportions of most groups of plants (SOE 2011)*

*It is still not possible to give a comprehensive national picture of the state of Australia's environment because of the lack of accurate, nationally consistent environmental data. Therefore, the need for an enduring environmental data system remains a high priority if Australia is to measure progress and make sound investments in the country's environmental assets. (SOE 2006)*

*Biodiversity in Australia has declined since European settlement. This decline is seen in all components of biodiversity—genes, species, communities and ecosystems—and the evidence from pressures suggests that many components of biodiversity continue to decline. (SOE 2011)*

*The loss of biological diversity is perhaps our most serious environmental problem. Whether we look at wetlands or saltmarshes, mangroves or bushland, inland creeks or estuaries, the same story emerges. In many cases, the destruction of habitat, the major cause of biodiversity loss, is continuing at an alarming rate (SOE 1996)*

A more recent trend has been the increasing irrelevance of SOE reporting despite it being the only mechanism by which we currently try and understand the trends, pressures and drivers of species loss at all scales. The 2011 SOE report faded into oblivion in the public eye within a matter of days, perhaps hours. I am not aware of a single initiative or commitment made by the government in response to a process that was once held out as the foundation of a new way of thinking about and protecting Australia's incredible diversity.

Attached to this submission are three stories/ case studies of species that we have failed to protect. In one case, the Christmas Island Pipistrelle, a species was allowed to go extinct despite warnings for almost 5 years of precipitous declines in population numbers. In one case the failure relates directly to the conflict between development and protection. A development is allowed with 'stringent' or 'rigorous' conditions. Those conditions fail to work. Declines continue and nothing happens. The third case study, the snub fin dolphin, relates to the failure of the listing process itself – where lack of data becomes an excuse not to protect. These case studies are not isolated but reflect a system that in all ways is failing Australia's environment.

The failures of the current EPBC provisions relating to threatened species are political, financial and structural.

### **The political context**

At a political level, there is an almost obsessive support for any development, any action that will produce jobs no matter the impacts. There is an accompanying belief – or at least a stated belief – that we can somehow manage all the impacts of these decisions. Approval of large developments is assumed. The process under the EPBC Act and most states' legislation is an approval process and it is rare indeed in the history of the EPBC Act to see developments prevented – and usually that is the result of community backlash not political enlightenment. Over 99% of all referred projects are either approved or deemed not to be controlled actions.

Once approval is given, the Government likes to tout the 'stringent conditions' imposed on the proponent. Unfortunately, there is little oversight and certainly no audit of the extent to which conditions imposed on developments have any beneficial outcomes or have prevented the harms they were intended to prevent.

There are several worrying trends in this regard. One is the increased use of offsets. Offsets appear more like Papal dispensations than any kind of evidenced based approach. It is urgent that offsets – kind, quality and quantity – are properly audited to see if they are effective. Questions of additionality need to be addressed as well.

A second trend – one all too apparent in the recent decision to approve the Alpha Mine, is that conditions of approval are increasingly requiring data and information that should have been part of the initial assessment and decision process and not a condition of approval. This includes critical data on both species and habitats. The notion that this information can be deferred until after approval is given assumes that all the impacts are manageable.

It also means that less and less work is being done to determine whether a development should proceed. The process becomes one of 'how' not whether a development can proceed.

It is rare to see conditions on approval monitored, and where they are monitored to see any changes occur. The story of the lungfish is an example where the Federal Government intervened to impose a monitoring condition on the efficacy of measures to ensure the lungfish could move up and down stream of the Paradise Dam. That monitoring demonstrated the abject failure of most of the

mechanisms over the 5 years the monitoring took place. No action, though, has been taken in response to these failures.

The kind of management ethos that underpins approvals and the approval process needs to be questioned. It doesn't and hasn't worked. We cannot manage all impacts. We cannot approve all developments, regardless of the conditions, and not see a decline in the health of our environment and the systems that support us.

A shift in the way we think about protection for our species needs to occur. The 2011 SOE report noted, "As Australia's population grows, serious thought needs to be given to the dependence of people on biodiversity and natural resources, and how we protect those resources."

The system upon which we depend for our lives and health is already reflecting the harsh and destructive treatment we have given it. Climate change is the most obvious example – one that will amplify many of the poor decisions we have made as a country in relation to the land we share with millions of other species. I almost feel self conscious writing those words. I imagine some will now dismiss me as a hippy/dreamer/earthchild – when in fact, our dependence on and interdependence with the environment are basic, the most basic, premises of ecology. That premise is absent from our current system of laws and the decisions we are making.

The current debate over the expansion of Queensland's coal ports and the ongoing health and life of the Great Barrier Reef unfortunately paints a very clear picture of all levels of Government entirely prepared to sacrifice the Reef to development and apparently not believing the warnings given by their own experts.

Until the attitude towards species and habitat changes; until we see these as part of our life support systems, we will continue to declines in all the indicators of the health of our environment.

### **Financial**

Without having researched the level of investment in protected areas, species, preventative measures (including reserves), threat abatement and identifying and limiting key threatening processes, it is nonetheless obvious that because 'nature' does not directly generate revenue (it's just our life support) it receives little in the way of funding compared, for instance, to the fossil fuel industry. I would challenge the committee to compare the investment in life support to the subsidies that the States and Federal Government give to the fossil fuel sector – fuelling destructive practices and species loss.

### **Structural**

The manner in which the EPBC Act addresses threatened species needs fundamental change. Currently, it is more difficult to protect a species, to reverse a decline in the health of a species than it is to get a coal mine approved.

### **Listing**

The Threatened Species Committee, because it is under-resourced, can only consider a limited number of potential species for listing. Each year they consider a number of species for priority listing. This is effectively a pre-listing screening process. The process generally depends on community input – an *ad hoc* approach at best. It is clear, if not quantified, that a large number of species which could or should be considered for listing aren't. Some of the other listing mechanisms, such as Key Threatening Processes (KTP), also require community nomination. Most are refused. If priority listing is given, the Threatened Species Committee will consider in the following year

whether the species should be listed. Unlike development applications, there is no negotiation on the outcomes or the information provided. Those species not given priority listing may be nominated once more. In the case of the snub fin dolphin, it was refused priority listing because of a lack of data. This is extraordinary – a large mammal species only discovered in 2005 does not receive protection because we know so little about it. One can only speculate what happened to the precautionary principle.

The listing process suffers too from a more fundamental flaw. It essentially allows species and habitats to decline; allows pressures and destructive practices to continue unabated until a species is listed. Effectively, it allows circumstances in which declines and extinctions are set in motion without any intervention and without any precaution. The intervention points, if they come at all, arrive late. Once a species is in decline, it is far more difficult and costly to reverse that trend than it is to protect the species or habitat in the first place.

We must begin from the principle that all species and habitats are essential (even if not understood) parts of our life support, and that to modify, destroy or reduce the functioning capacity of those systems can only occur if it can be demonstrated that it is safe to do so. In other words, all native species and habitats should be protected and developers must demonstrate both compelling need and lack of harm.

An absence of information should not be used to justify or allow destructive practices. This shift in onus would ensure that this occurs.

#### Recovery plans

It would be useful if the Committee could secure the following information from the States and Commonwealth:

- What is the average length of time from listing to finalising a recovery plan?
- How many recovery plans that have been implemented have resulted in recovery of the target species?

The recovery plan for the CI Pipistrelle was not implemented and it isn't clear in any event that the plan was adequate to prevent the Pipistrelle's extinction.

Is adequate investment being made in recovery plans?

Recently Professor Hugh Possingham and others suggested that because of lack of funding the threatened species process should move to a 'triage' type of approach, where we only save some species – those most cost effective to save.

The reality is that the current system is already a triage system and the emergency room is filling faster than the system can respond. We are not protecting habitats; we are not reducing pressures and processes. Until preventative measures are put in place, this dismal triage system will continue and continue to fail.

The Great Barrier Reef is unfortunately a good example. The 2009 GBRMPA Outlook report noted that the Reef is at a critical juncture because of climate change and ocean acidification. The potential loss of reefs and species is horrifying. While addressing climate change and acidification requires far greater national action, GBRMPA recognises that reducing pressures and impacts that can be addressed at a national scale will improve the resilience and chances of the Reef surviving. And so the Queensland and Federal Government rush to approve every coal mine and coal port that they can.

Species will go extinct that have not even been named or identified. Species will go extinct because we continue to have a system that favours economic development over life support systems. Triage approaches will be overwhelmed under current climate change scenarios and the only response possible at the moment is to not list, not have recovery plans for the vast majority of species and habitats that will come under threat. We do so at our own peril – we simply have no idea of how a system that is allowed to break down will respond.

Another example of these misplaced priorities is the Southern Bluefin Tuna – one of the more amazing marine creatures on the planet. Despite over a 95% decline in its estimated baseline numbers, decision makers insist that we can allow continued take and manage their return to health. It's almost as though the collapse of the Atlantic Cod fishery – and the completely unpredictable point of no return – never happened.

We are now aware of the extent to which human actions have caused climate change. We are less aware of how our actions have fundamentally changed or weakened the systems and biodiversity upon which we rely for food, water, healthy soils, etc. The loss of keystone species, the loss of insects (eg the global bee die off), the loss of plants and plant diversity...We are crashing around the planet as though we have several spare planets, but we don't and we need to begin to act with the kind of urgency and intelligence of which we are capable.

Unfortunately, at the heart of the kind of transformation that needs to take place is the need to move away from an endless growth paradigm. Until we recognise that there are limits to the systems in which we live, planetary boundaries, we will never address our behaviour and activities with sufficient care.

A number of historians have now recorded how that failure to live within the limits of a system at local scale have resulted in local collapses. Easter Island is the most famous example, but wars over diminishing resources and collapse of civilisations because of either resource depletion or loss of access to resources is common. Australia is only somewhat insulated from these realities. Climate change will change that. (see Ponting, C., A Green History of the World)

I recognise that these broad principles go well beyond what the Committee is likely to deal with, but unfortunately these are drivers of the issues the Committee is being asked to address. If it doesn't look this deeply but looks merely at the mechanics of the EPBC Act threatened species provisions it may be able to improve the current dismal situation but it will not be able to find ways to reverse the current trends.

The EPBC Act is probably not the ideal vehicle for instituting preventative and protective rather than triage mechanisms for protecting Australia. It is a reactive Act that enables development and constrains protection. It is rife with soft law that allows political decisions and political pressures to dominate.

## **Recommendations**

1. Move away from a threatened species based regime for protecting habitat and species. That doesn't mean eliminating it but that the first 'line of defence' needs to become preventative. Preventative structures include increasing and strengthening the reserve system, improving dramatically protections of land and water, strengthening off – reserve protections, improving strategic assessment (at the moment strategic assessment is being used primarily to establish a blueprint for development – meaning that the broader community is subsidising developers who will

need to do less work to get development approvals). Strategic assessments should be required for all of Australia;

2. Establish rights for systems that can be enforced by the community. This was first proposed in 1971 by the American Lawyer and ethicist Christopher Stone. It is now being advocated by the Wild Law Alliance globally.

3. Dramatically improve impact assessment; cumulative impact assessment; long term and synergistic assessments. Shift the onus on proponents to demonstrate that what is being proposed will not damage the systems upon which we depend.

4. A moratorium on offsets until they have been fully audited and can be demonstrated to improve the environment.

5. Integrate State of the Environment reporting into the EPBC, with real time reporting and mandatory trigger/response provisions;

6. Develop implementation mechanisms for the precautionary principle that are real.

7. Mandate a reversal of all declining environmental trends in the EPBC Act;

8. Eliminate RFAs and bring forests under a national system

9. Introduce a climate trigger into the Act;

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## The story of the ancient lungfish and the Paradise Dam

The lungfish is weird, unique, ancient. It is a link with a history that few animals provide. It is a fish but has a lung and can breathe. It grows up to 1.5 metres and doesn't reach breeding age until it is around 15 years old.

Its primary habitat are the main river channels of just two rivers in Queensland, the Mary and the Burnett.

The lungfish was finally recommended for listing under the EPBC Act in 2003, two years after a major dam on the Burnett River was approved by the same Minister under the same Act.

The data upon which the Government relied in listing the lungfish predates the approval. Recruitment declining. Habitat – significant loss due to dams and other impoundments, decline in the quality of habitat. No evidence that attempts to establish populations in other rivers had succeeded.

The approval for the Paradise Dam included 'stringent' conditions. Conditions imposed under the Act are always deemed 'stringent'. They are not, however, always effective. The conditions included annual monitoring of the various fish ladders and other devices intended to assure the passage of the lungfish above and below the dam. The monitoring was required for 5 years.

The monitoring shows that all the solutions are failing. The final report of Sunwater into the fish ladder system found that:

*“Fish mortalities are occurring during all flows over the Paradise Dam stepped spillway regardless of the flow condition. The cumulative affect of mortalities of fish passing over the spillway is likely to*

*have a major impact on populations of fish over the longer term....” (p3)*

*“The data indicates that Queensland lungfish were being injured and killed during passage over the dam wall during high and low flows over the spillway.” (p53)*

All the monitoring reports can be found here:

<http://www.sunwater.com.au/about-sunwater/right-to-information/publication-scheme>

[http://www.sunwater.com.au/data/assets/pdf\\_file/0019/9226/Paradise Dam Upstream Fishway Monitoring Program.pdf](http://www.sunwater.com.au/data/assets/pdf_file/0019/9226/Paradise_Dam_Upstream_Fishway_Monitoring_Program.pdf) (40MB)

[http://www.sunwater.com.au/data/assets/pdf\\_file/0018/9225/Paradise Dam Downstream Fishway Monitoring Program.pdf](http://www.sunwater.com.au/data/assets/pdf_file/0018/9225/Paradise_Dam_Downstream_Fishway_Monitoring_Program.pdf) (15MB)

At the time of listing the lungfish population was unknown but is larger than 1000 mature individuals.

Despite the clear failure of the conditions and mechanisms to protect the lungfish, no steps have been taken by the Federal Government to ensure that protection of the lungfish actually occurs.

On current trends, the lungfish will be extinct by 2050.

## **The Christmas Island Pipistrelle is now presumed extinct, the first mammalian extinction in Australia in 50 years.**

Over 10 years and repeated warnings, both the ALP and Coalition failed to take the steps necessary to prevent a preventable extinction. Imagine the outcry if a coal company sought approval to build a mine and the Government delayed, delayed, delayed until the company went bust. At least in those circumstances, the resource would survive.

The pipistrelle was a tiny, insectivorous bat, endemic to Christmas Island. The Commonwealth Government is solely responsible for the Island's management and the protection of the numerous endemic species there.

As a result of poor management, delay, lack of funding and ongoing failures to act, there are a number of significant risks to threatened species on Christmas Island, primarily associated with the number and scope of invasive species. The pipistrelle extinction is only the first in what is likely to be a litany of extinction.

As early as 1994 and confirmed in 1999, systematic surveys showed that the pipistrelle was suffering significant declines in numbers.

Seven years after the first warning in 2001, the bat was listed as endangered under the Environment Protection and Biodiversity Conservation Act. Unlike the process for building a coal mine, there are no time frames the Minister must adhere to in the listing process.

A Recovery Plan for the bat was prepared in 2004, three years later, and ten years after the first warnings. Once a species is listed, there is no time frame for the development or implementation of a recovery plan. Compare that to a coal mine. Once all the information requested by the Government is received, the Minister must make a decision on whether to approve the coal mine within 40 business days (<http://www.environment.gov.au/epbc/publications/pubs/assessment-process.pdf>).

The recovery plan received funding of \$276,000. The Plan contains many actions and criteria, but only 2 actions were designed to actively protect the species.

*Criterion 8: All supercolonies of the Yellow Crazy Ant are eliminated and ongoing management undertaken to ensure no subsequent re-infestation.*

*Criterion 9: Protection of known or potential habitat is increased outside the Christmas Island National Park.*

As of 2009, when the pipistrelle went extinct, neither of these objectives had been fulfilled.

Instead, the Government was still negotiating with Christmas Island Phosphate over protection of habitat outside the National Park and control of crazy ants was limited to baiting of new super colonies (see Recovery Plan actions on website) not to elimination of existing ones.

In 2006 a threat abatement plan was prepared to deal with the primary threat to the bat, the crazy yellow ant. This plan had no budget and only the most aspirational of objectives.



In 2005, Government scientists warned the Government that absent immediate intervention the pipistrelle would go extinct. At that point the population of the bat was estimated to be around 500 individuals.

In 2006 the species status was 'upgraded' from endangered to 'critically endangered'. A captive breeding program was proposed but not undertaken.

In 2007, radical action was being called for by a number of scientists (Martin 2012, p2), including an 'insurance plan' of capturing remaining bats while threats were mitigated or eliminated.

Nothing happened.

By 2009, the population was estimated to have crashed to around 20. The Minister decided to 'trial' a captive breeding program with another 'analogous' species – *pipistrellus westralis*. In late 2009, following additional advice that urgent steps were needed, the Minister agreed to capture the remaining pipistrelle population, but it was too late. Only one bat was found.

Those who have examined the extinction point to lack of urgency, lack of funding, bureaucratic obstruction and lack of political will as responsible for the extinction of the Christmas Island pipistrelle.

Over a 15 year period a species that existed only in Australia was allowed to go extinct. When big business complains about 'red tape' they are demanding even fewer protections for species such as the pipistrelle so that they can have even bigger profits.

## **The Snub Fin Dolphin**

How is a newly discovered species protected? Well, in the case of the Snub Fin Dolphin it's not. It wasn't until 2005 that the snub fin dolphin was discovered along Australia's east coast. Finding a new mammal species is extremely rare – and even more surprising when it is a 2.5 metre dolphin that lives in inshore waters along the most studied reef system anywhere in the world. The snub fin dolphin is Australia's only endemic dolphin species – meaning it is found nowhere else in the world.

Unlike its close relative, the Irawaddy River Dolphin, the snubfin is not a migratory species but an inshore species, living in shallow coastal and estuarine waters of Queensland, Northern Territory and north Western Australia. Coastal and river dolphins are the most threatened of all dolphin species. Loss of habitat, fishing, boat strike, capture in nets and pollution are all risks for dolphins such as the snubfin.

WWF submitted a nomination to the Government's Threatened Species Committee to have the snubfin put on the priority list, allowing it the following year to be considered for listing as a threatened species, a listing that would, in theory, afford the snub fin some protection.

Once a year, the Threatened Species Scientific Committee (TSSC) considers such nominations. They may decide not to include a species on the priority list for a variety of reasons, including workload. There are no such delays in the process for a coal mine. Once a coal mine proposal is referred the Minister must make a decision on what level of impact assessment, if any, will be required. That first decision must be made within 30 days.

If the TSSC believes a case has been made, the species is then put on the priority list for listing consideration. In other words, the priority list only assures that you are considered for listing. Once given priority listing, an assessment of the species is undertaken. That can take up to another year. The TSSC will then make a recommendation to the Minister whether the species should be listed. What's more likely to be rejected, a coal mine or a nominated threatened species? A threatened species by a long shot.

In the case of the snubfin, it was rejected for priority listing because of insufficient data. This includes insufficient information on their distribution and abundance, diet, life cycle and threats to their health.

If a coal mine provides insufficient data, the mine is requested to provide it. If there is insufficient data for a species it is rejected for priority listing.

In the case of a new species, 'insufficient data' will be the norm and failure to give a newly discovered species priority listing on that basis is a bit like saying, let's not bother going to Mars to explore because we don't know enough about it.

The estimated total population of the snubfin may be as few as 1000 (WWF 2011 [http://awsassets.wwf.org.au/downloads/sp150\\_case\\_for\\_legal\\_protection\\_australian\\_snubfin\\_dolphin\\_1may11.pdf](http://awsassets.wwf.org.au/downloads/sp150_case_for_legal_protection_australian_snubfin_dolphin_1may11.pdf)). Additionally, local populations may fall below viable levels with the death of even one or two dolphins. (id at p3)

One of the homes of the snubfin is in the Fitzroy River Delta catchment in the southern part of the Great Barrier Reef World Heritage Area. The snubfin's home is threatened by two major developments: a major coal port on Balaclava island at the mouth of the Fitzroy River (exporting

35mt of coal pa) and the Fitzroy Terminal Project (exporting 22mt pa of coal), near an existing facility at Port Alma. Development of the port would require significant dredging and would result in significant boat traffic – both of which pose major threats to the snubbie.

The snub fin dolphin can be renominated once more for priority listing, but in order to do so someone has to gather data. The Government isn't doing that. The coal companies that want to build coal terminals right in the middle of snubbie habitat aren't going to do that. They can get away with doing an assessment that doesn't determine if their mine and port are going to send a species extinct.

So, less than 10 years after its discovery there is a risk that the snubbie will disappear because the process for listing a new species is stacked against the species and stacked in favour of coal mines.