Submission into the Senate inquiry into Australia's faunal species extinctions, 10/9/18

About North Queensland Conservation Council

NQCC is the voice for the environment in North Queensland with over 1500 members and supporters. With our office based in Townsville, we cover an area from Cardwell in the North, South to Bowen and extending West across to the Northern Territory border. We are the peak environmental organization for our region, campaigning on a range of environmental issues specific to the North Queensland region. For over 40 years we have been campaigning for the protection of the Great Barrier Reef and isolated reefs of the Coral Sea to opposing inland projects that would have adverse impacts on threatened species, habitat and our precious water resources.

Australia needs National Sustainability criteria to be implemented across the board. Ecological sustainable development (ESD) is an important aspect of the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act) however it has had insufficient powers to properly halt faunal species extinctions. These declines will continue while land use change continues to destroy habitat through current patterns of coastal development and clearing for agriculture. ESD has not been adequately implemented and as such, habitat preservation and species protection has often been perceived as a hindrance to development and economic growth. What is needed now, is for ESD to become a whole-of-government approach, across all departments and all levels of Government. This approach is about integrating the preservation and restoration of ecosystem services and assets as part of economic management, rather than considering them as economic externalities. ESD needs to be translated into practices that all Australians adopt and that are widely acknowledged as the basis of Australia's quality of life.

The establishment of a National Sustainability Commission would ensure this is achieved. The commission should have the jurisdiction to impact upon all government departments and be considered by decision-makers as an essential part of the country's economic planning. Some ESD concepts that NQCC believes should be part of economic decision-making includes:

- Biophysical accounting – balancing the ecological accounts: the rate of use of natural resources must be balanced by the rate of that resource to regenerate. For example, the accounts are currently in the negative in relation to habitat, as land use change since European settlement has exceeded habitat regeneration. This places huge pressure on most Australian wildlife currently listed as common, as well as those

listed as threatened. The only way to halt this pressure, is to reduce land clearing rates while at the same time investing in landscape regeneration

- Social system integrity – Australia's wildlife and environment needs to be managed as part of a system that seeks to meet the basic needs of people. Failure to do so will result in unsustainable behaviour (resulting in environmental degradation)

Community needs to have greater ability to engage in decision-making including a cap on court costs. NQCC has seen examples where the community provided information that assisted government compliance functions or contributed local knowledge, otherwise inaccessible to remote government teams. Unfortunately, under-resourcing of government departments has seen a greater need for community input otherwise some developments aren't always funnelled through the EPBC Act referrals process. Community information hotlines work well to help Australians to input their local knowledge into assessments, to initiate the review of government decisions and to learn more about the complex legislative framework.

In addition, the public should have protection from legal costs where the public interest is being represented. This input should be seen as a function to increase transparency and accountable in decision-making rather than a burden to decision-making processes.

Three Case Studies

The following case studies (presented in tables below) illustrates how interconnected, complex and ever-changing the issues are that relate to Australia's faunal species extinction crisis. Protection of habitat is an important element to protect faunal species. However, the National Reserve System covers 19.63% of Australia but needs to be expanded to adequately maintain species' genetic diversity and resilience. Northern Australia is a special part of this continent, representing some of the largest areas of landscape connectivity and thus, landscape resilience. These high natural values are continually under threat of development and widespread irrigated agriculture. It is essential that the Australian Government commits strong targets as part of the Paris Agreement. In addition, the Australian Government needs to take a national approach to reduce land clearing and protect existing carbon stocks (e.g. biomass and soils). Fire management programs need to be adequately resourced and informed by the best available practices for public and private land managers. Finally, fire is an important part of Australia's landscape and increasingly important in a hotter and drier climate.

In conclusion, to halt Australia's faunal species extinction crisis, environmental legislation needs to be stronger and needs to be integrated into all aspects of decision-making, to positively shape economic opportunity in line with ESD and to ensure long-term quality of life for all Australians. NQCC welcomes this senate inquiry and hopes that the process can initiate a deeply reflective process that results in fundamental changes about how this country is managed now and for many generations into the future.

CASE STUDY ONE

	Protected areas are vital but stronger protection is needed on other tenures like leasehold land
Species	Gulbaru Gecko *Phyllurus gulbaru* Federally: Critically Endangered Qld: Endangered
Their Story	Only discovered by modern science as late as 2001, this 18cm gecko is one of the remaining species representing Australia's diversity from millions of years ago when rainforests were more widespread. The Gulbaru Gecko exists in only 2 pockets of habitat, the larger one is 10 square kilometres which is separated by a band of unsuitable habitat from a smaller range, just 4 square kilometres. The larger range is protected within Mt Cataract Forest Reserve and the Paluma Range National Park. However, the Gulbaru Geckos within the smaller range are dependent on the leaseholders of the area to be aware and sensitive to their habitat requirements. It is important to find innovative ways that may include legislation, to ensure these species are guaranteed protection that includes appropriate land management of property owners and land managers. The exact population size is not known.
Threats	Vulnerable to any reduction or degradation to its habitat, including: unmanaged burning, invasive grass species on the rainforest edge (also causes increased fire load), climate change impacts such as drying of the landscape and increased fire risks, regional activities such as quarrying. It is also worth noting that researchers do not know the exact population size, as is the case with many Australian species and therefore it is hard to know the full extent of impacts.
Our Message	Protected habitat can be represented by the National Reserve System, covering 19.63% of Australia. This percentage is inadequate to maintain species' genetic diversity and resilience, let alone in response to additional pressures on these protected areas, such as introduced species impacts, edge effects, changed fire regimes and the greatest pressure of all, climate change. In addition, consider that some of the largest areas of landscape connectivity which coincides with high levels of endemism, exists across Northern Australia. This area is under continual pressure to be developed and cultivated by irrigated agriculture in the same pattern of development that has devastating impact on Australia's wildlife (and more widely, its biodiversity).

CASE STUDY TWO

	Climate change means that many species have nowhere to hide
Species	*Euastacus bindal*, a freshwater crayfish with no common name Federally: Critically Endangered Qld: Vulnerable
Their Story	The genus, Euastacus are all endemic to Australia. The Euastacus bindal are known to only inhabit one mountain top and require a specific altitude range for their survival. These a slow growing species with a relatively low reproductive rate. The habitat area is small and fragmented, making them highly susceptible to small-scale, localised impacts. Crayfish are poikilothermic (unable to regulate their own temperature), and thus have limited capacity to fast-paced climate change. This species is adapted to a habitat with a narrow temperature range and have no ability to translocate.
The Threats	Climate change variability present as a huge risk to species like this freshwater crayfish. Changes to rainfall patterns and hydrology, the species' isolation makes it highly vulnerable. Localised impacts such as landslides, bushfires and other extreme weather events can have devastating impacts and additional pressures add to the stress e.g. exotic species like cane toads, cats, foxes and pigs, which have been reported to have affected similar species in other areas
Our Message	It is essential that the Australian Government commits strong targets as part of the Paris Agreement. In addition, the Australian Government needs to have a national approach to reduce land clearing, protect existing carbon stocks (e.g. biomass and soils) and commit to protecting more habitat strategically to maximise climate adaptation of Australia's biodiversity.

CASE STUDY THREE

	Land management, in particular fire management can be the difference between life and death
Species	Carpentarian Grasswren *Amytornis dorotheae* Federally: Endangered Qld: Vulnerable
Their Story	On 6 August 2012, a satellite detected unusual thermal activity starting from a small fire and that grew over 4 weeks to cover an area of 130,000 hectares, at a location about 70 kilometres north-west of Mt Isa. This event was significant because it burnt out this site, known to be one of the largest remaining populations of the Carpentarian Grasswren. Previously, another popular site for this species was near Borroloola in the Northern Territory but this population died out due to a series of large hot fires. The years 2011 and 2012 were tough years because their spinifex habitat experienced significant hot and fast-moving fires. After a couple of big wet seasons in the previous years, spinifex growth had led to a build-up of fuel load in the landscape that was not sufficiently managed by prescribed burns by land managers, resulting in more intense and hotter fires.
The Threats	Fire management is a key threat for this species that is further exacerbated by changes to climate, land use changes such as mining and the added pressures of introduced feral species.
Our Message	Climate change related message here Fire management programs need to be adequately resourced and informed by the best available practices for public and private land managers. Fire is an important part of Australia's landscape and increasingly important in a hotter and drier climate. The rotation of prescribed burn-offs throughout the landscape gives areas the chance to grow back, as is observed in spinifex habitats. An understanding of landscape ecology and the needs of species needs to shape fire management practices.