

# TASMANIAN GOVERNMENT SUBMISSION

## **Senate Standing Committee - Inquiry into Australia's faunal extinction crisis**

## INTRODUCTION

Tasmania has a unique environment that underpins the State's reputation for quality primary produce and world class wilderness experiences.

Tasmanian Government Agencies and Local Government ensure potential impacts on fauna (and other natural values) are considered within the Tasmanian Planning System. Comprehensive planning legislation, State Policies, Regional Land Use Strategies and partnerships with Natural Resource Management (NRM) organisations, industry, the community and not for profit organisations all play a role in protecting the State's fauna.

Tasmania is home to many unique animals which are quite unlike those found anywhere else in the world, as a consequence of the continuing evolution of fauna in isolation. The three largest carnivorous marsupials in the world – the Tasmanian devil (*Sarcophilus harrisii*), the spotted-tail quoll (*Dasyurus maculatus*) and eastern quoll (*Dasyurus viverrinus*) are all present in the State. Five mammal species are endemic to the island, while over half of our mammal species are recognised as distinct subspecies from their mainland counterparts.

Having fewer introduced predators, and a relatively large amount of intact habitat on the island many fauna species which have become extinct on mainland Australia are still present in Tasmania. Tasmania has 192 listed threatened fauna species.

## TASMANIA'S BIOSECURITY

Tasmania's island status and its strict biosecurity protocols provide the State with a better chance of preventing incursion of invasive species and pathogens than individual Australian mainland States.

Tasmania has strong biosecurity measures that are underpinned by legislation and policies, consistent with the Tasmanian Biosecurity Policy principles. This includes tight border restrictions on risk commodities, and control of animal species that can enter and be kept in the State.

The Tasmanian Biosecurity Policy is delivered through the Tasmanian Biosecurity Strategy, whose purpose is to protect and enhance Tasmania's biosecurity status for the benefit of Tasmania's industries, environment, public well-being, health amenity and safety. The Strategy provides the basis for the operation of the Tasmanian biosecurity system that has been successful in preventing incursion of animal diseases and entry of pest animals that can impact on fauna species.

Prevention is the most cost-effective action as illustrated in the Generalised Invasion Curve<sup>1</sup>, but once an incursion occurs there is a small window of opportunity to eradicate that species. It's at this point where incursion responses are activated to eradicate the pest. For those species that are beyond eradication, control and management focuses on containment or asset protection. Tasmania focuses on prevention, allocating resources towards the highest priorities to achieve the highest return on investment.

In addition, Tasmania has a strong post border response capacity to respond to potential incursions of pest and disease, for example the Indian myna. This species is highly invasive, and establishment has been prevented in Tasmania by an effective biosecurity system. Public awareness and rapid response continue to be critical in keeping such pests out of the State.



<sup>1</sup> [http://agriculture.vic.gov.au/\\_\\_data/assets/image/0005/179051/invasion\\_curve\\_big.jpg](http://agriculture.vic.gov.au/__data/assets/image/0005/179051/invasion_curve_big.jpg)



## CASE STUDIES

### MACQUARIE ISLAND

From the late 1980s to 2013, Macquarie Island has had five introduced pest species eradicated: four mammals (cats, rabbits, rats and mice) and one bird (weka). A three year program has been initiated, with the program outputs aligning with the National Threatened Species Strategy. Following the removal of cats, threatened seabird species such as the blue petrel (*Halobaena caerulea*) which were only present on nearby rock stacks returned to the main island. The grey petrel (*Procellaria cinerea*) returned after 100 years of absence.

With the recent removal of rodents and rabbits, burrow-nesting petrels have significantly increased in distribution and endemic and native vegetation has recovered. The success of the Macquarie Island eradication has stimulated similarly ambitious projects on other subantarctic islands such as on Gough Island (UK) and Marion Island (South Africa).

### TASMAN ISLAND CAT ERADICATION

Through a partnership of government, non-government organisations and industry, feral cats were eradicated from Tasman Island, an area of 120 hectares. This has provided secure pest-free habitat for Australia's largest fairy prion (*Pachyptila turtur*) colony, as well as for other burrow and ground nesting bird species such as the short-tailed shearwater (*Puffinus tenuirostris*) and the Lewins' rail (*Lewinia pectoralis*).

### BRUNY ISLAND FERAL CAT ERADICATION

Bruny Island has been nominated by the Office of the Threatened Species Commissioner for feral cat eradication by 2020. A three year program has been initiated, with the outputs of program aligning with the National Threatened Species Strategy.

To maximise investment value of the program, an Investment Framework for Environmental Resources (INFFER) assessment was undertaken to identify key natural values impacted by feral cats and the management actions proposed to ameliorate feral cat impacts. The project is a unique collaboration between the Kingborough Council, Weetapoon Aboriginal Council, University of Tasmania, Ten Lives Cat Centre, community groups and the Australian and State Governments.

This project will reduce the impact of feral cats on Bruny Island through a framework of robust research and monitoring of feral cats and their impact, communication of domestic cat management and care, broad scale community engagement and targeted on-ground feral cat control and management.

## A STRONG SYSTEM OF PUBLIC AND PRIVATE RESERVES

Tasmania has an extensive system of protected areas which contribute to protecting the State's fauna. As at 3 May 2018, 50.4 per cent of the 6.81 million hectares of land in Tasmania was reserved, including both formal and informal reserves on public land and reserves on private land. This includes 149 900 hectares of private land in reserves (2.2 per cent of the Tasmanian land area).

The Tasmanian Reserve Estate (TRE) is a well-established and extensive system comprised of reserves of various types on public and private land which include both terrestrial and marine environments. The TRE includes formal dedicated, non-dedicated and informal reserves on public land as well as private land reserves that are either perpetual or variable term.

The Tasmanian Marine Reserve Estate includes 135 100 hectares in Marine Protected Areas (MPAs). The most significant is the Macquarie Island MPA, comprising 81 946 hectares. In total 7.9 per cent of Tasmania's State coastal waters is reserved, of which 4.2 per cent is in fishing 'no-take areas', the majority of this concentrated around subantarctic Macquarie Island.

The reserves in totality represent a spread of IUCN protected area classifications and are created under a suite of legislation (e.g. *Wellington Park Act 1993*, *Nature Conservation Act 2002*). The vast majority of the reserves form part of the National Reserve System.

## INVESTMENT IN RESERVE MANAGEMENT

Investment in reserve management is significant, comprising both State and Australian Government contributions.

Tasmania's Parks and Wildlife Service (PWS) manages three World Heritage sites, 19 national parks and 816 reserves (including Crown lands). The Department is also responsible for Future Potential Production Forest (FPPF) lands which comprise an additional 412 000 hectares.

The Tasmanian Wilderness World Heritage Area (TWWHA) is a world famous icon and one of the largest temperate natural areas in the southern hemisphere. The 1.58 million hectare TWWHA covers almost a quarter of Tasmania and is one of only two properties in the world listed under the World Heritage Convention on the basis of three cultural heritage and four natural heritage criteria.

The Tasmanian and Australian Government jointly fund the presentation and preservation of the TWWHA's natural and cultural values.

Across all of the estate managed by DPIPWE, including the TWWHA, activities are undertaken to protect and deliver improved outcomes for fauna. These activities include:

- Fire management for species protection
- Planned burning to mitigate the risk of wildfire
- Mitigation measures such as wash stations to reduce the spread of (root rot) phytophthora and chytrid fungus
- Weed management to prevent invasive colonisation of waterways and other habitat
- Erosion control and management of eroded landscapes to reduce sedimentation or pollution of rivers and streams
- Education and interpretation to assist visitors to understand the habitat requirements of fauna and actions to minimise disturbance
- Collaboration with scientists and researchers on species management and protection



## RESERVE MONITORING

Monitoring, evaluation and reporting on management effectiveness for Tasmania's national parks and reserves is undertaken to guide decision making. The process also allows for transparency in the management of our reserves, including World Heritage listed areas.

Across the formal reserve component of the TRE that is managed by the Tasmanian PWS a monitoring and evaluation framework is applied<sup>2</sup>.

Based on the outcome of monitoring and evaluation an adaptive management approach is taken that provides an integrated, evidence-based approach to achieving objectives and delivering long-term desired outcomes.<sup>3</sup>

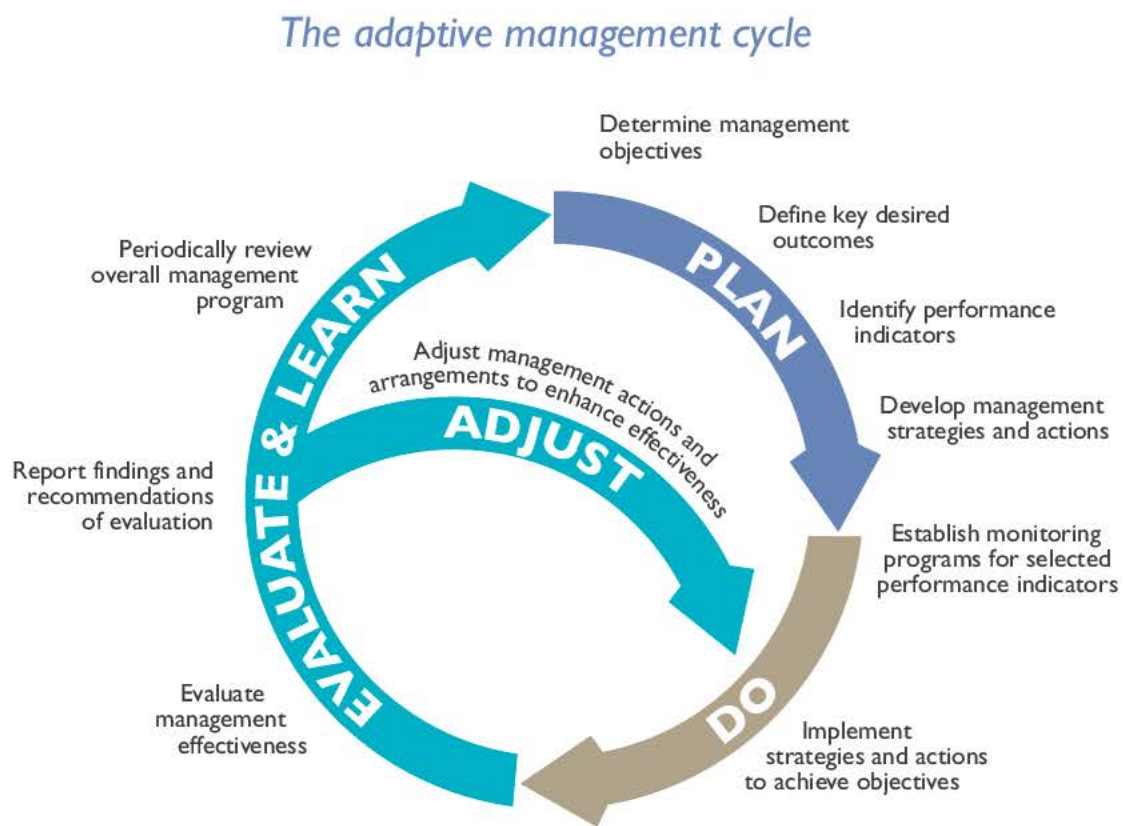


Figure 1 The Adaptive Management Cycle used in Tasmania's Reserve System.

<sup>2</sup> <http://www.parks.tas.gov.au/file.aspx?id=43698>

<sup>3</sup> <http://www.parks.tas.gov.au/index.aspx?base=5756>

## LEGISLATION AND PLANNING TOOLS

In addition to the Australian Government's EPBC Act, Tasmania has robust environmental law that includes: the *Nature Conservation Act 2002*, the *Threatened Species Protection Act 1995*, the *Environmental Management and Pollution Control Act 1994*, the *State Policies and Projects Act 1993*; the *Land Use Planning Approvals Act 1993*, and associated subordinate regulatory instruments – all assist in protecting the State's fauna.

The *Nature Conservation Act 2002* provides for conservation and protection of fauna, flora and geological diversity of the State, to provide for the declaration of national parks and other reserved land and for related purposes. The *Wildlife (General) Regulations 2010* are subordinate to the *Nature Conservation Act 2002* and provide controls for hunting and the taking, possession and trading in wildlife and wildlife products.

The *Threatened Species Protection Act 1995* provides for the protection and management of threatened native flora and fauna to enable and promote conservation in Tasmania. The *Threatened Species Protection Regulations 2016* are subordinate to the *Threatened Species Protection Act 1995* and provide controls on listed taxon including taking, acquiring, selling, keeping, disturbing, processing, exporting or importing.

The *State Policies and Projects Act 1993* provides for the making of State Policies which provide for overriding legislative requirements to protect and manage environmental matters. The *State Coastal Policy 1996* provides for extensive consideration of coastal processes and natural values which must be given effect through a range of subordinate planning and management instruments.

A range of planning and management tools are also utilised to achieve biodiversity outcomes relating to the protection of fauna including:

- Local government planning schemes (soon to be replaced by the Tasmanian Planning Scheme)
- Regional and catchment based Natural Resource Management Plans
- Threatened Species Listing Statements and Recovery Plans
- Public Authority Management Agreements (statutory agreements between the Crown and public authorities for the management of threatened species)
- The Natural Values Atlas (Tasmania's comprehensive publically available online database of natural values)
- Threatened Species Link (An online publically available database for management and conservation advice on Tasmania's threatened species)
- The Conservation of Freshwater Ecosystem Values (CFEV) database

The introduction of the Tasmanian Planning Scheme, which will progressively replace the 30 existing local planning schemes, provides for a stronger role for the State Government through the preparation of the State Planning Provisions (SPPs) which set out a mandatory set of planning regulations for administration by local councils. The SPPs include a Natural Assets Code which provides planning controls, to where possible, avoid impacts on fauna and flora, and protect wetlands and waterways and future coastal refugia areas.



## CASE STUDY

### PUBLIC AUTHORITY MANAGEMENT AGREEMENTS

The Department has Public Authority Management Agreements (PAMAs) in place with a number of statutory bodies to provide for the specific management of threatened species (fauna and flora) where they occur in areas managed by those authorities.

PAMAs set out mutual obligations for the management of these areas and the species they contain, as well as establishing reporting requirements to ensure species information and responses to management actions are up-to-date and available to inform adaptive management approaches.

For example, a PAMA for the management of two native fish and eight invertebrate species has recently been signed between the Crown and Hydro Tasmania (the State's major electricity generator), which is responsible for the management of yingina/Great Lake in Tasmania's Central Highlands.

The lake is important for hydroelectric generation and irrigation, as well as supporting ten threatened species. The PAMA sets out Hydro Tasmania's management and reporting requirements, providing certainty to their operation and security for the threatened fauna, including the establishment of lake water level thresholds and associated monitoring and intervention actions that are triggered if those levels are reached.

### PARTNERSHIPS TO PROTECT FAUNA

The Tasmanian Government has a dedicated Threatened Species Section within the Department of Primary Industries, Parks, Water and Environment (DPIPWE). The Section comprises specialised staff with expertise in zoology, botany and ecology. In addition to the Threatened Species Section, the Department has a dedicated program for the Orange-bellied parrot that has 11 staff. The Save the Tasmanian Devil Program has a further 25 staff. There are more than 300 other Departmental staff, including veterinarians, wildlife operations staff and rangers, whose daily work involves some aspect of threatened species conservation and habitat management.

Staff within DPIPWE also work with other Government Departments, liaising with colleagues in the Department of State Growth and the Department of Justice. The regulatory responsibilities of Departments and Ministers often involves joint assessments of development applications, as well as joint partnerships in delivery of programs. Similarly, liaison with the 29 Local Governments in the State is a crucial aspect of managing the State's unique faunal species.

A good example of how staff within the Department work with other Departments and the community is the Marine Conservation Program - a program which is in place to rescue and release marine mammals that are stranded or entangled. The experience and expertise of the program's staff, and access to specialised equipment and resources, much of which the program has developed and pioneered over the last 25 years, is crucial to responding successfully to marine mammal emergencies and for effective stranding response efforts and welfare of individuals. Tasmania is the only Australian state where mass strandings of whales and dolphins regularly occur; and the program continues to respond to these events, on average, once every two to three weeks. Departmental staff work with colleagues in other agencies, with Local Government and volunteers to deliver this important program.

The Tasmanian Government also actively maintains a range of programs in which the community participates in, to assist in protecting the State's biodiversity including fauna.

The Private Land Conservation Program was established in 2006 to provide a single point of management for all of DPIPWE's conservation programs that focus on private land. The Program works with landowners to sustainably manage and conserve natural values on private land including fauna and habitat.

Landowners may enter into a conservation covenant to manage defined areas of their properties specifically for nature conservation. Covenants are legally binding under the *Nature Conservation Act 2002* and are registered on the land title. As of 6 August 2018 there were 870 conservation covenants covering 109 195 hectares of land. Many of the covenants protect threatened fauna species.

The Land for Wildlife scheme (LFW) was established in Tasmania in 1998. Participation in this conservation scheme is voluntary, free, and non-binding. The LFW scheme aims to encourage, support and recognise landowners who are managing their properties under conservation principles. As of 6 August 2018 there were 991 Land for Wildlife members whose property areas totaled 58 456 hectares of land. These properties provide habitat for a range of threatened fauna species.

The Gardens for Wildlife scheme (GFW) was launched in August 2008. Participation in this conservation scheme is voluntary and non-binding. The scheme aims to encourage and recognise people who wish to make their property friendly for local wildlife and the environment. As of 6 August 2018 there were 621 GFW members whose property areas totaled 2 929 hectares. Even though the majority of these properties are in urban areas, habitat for many fauna species is provided.

Wildcare Inc is an incorporated environmental volunteer group that focuses on natural and cultural heritage conservation and reserve management throughout Tasmania. Wildcare has a membership of around 6000. Groups form to undertake a range of activities including protecting threatened and non-threatened fauna species and their habitat on reserved land. Wildcare Inc has established a Raptor Rehabilitation and Research Fund as part of the Wildcare Gift Fund to support the care, rehabilitation, release and conservation of Tasmania's birds of prey in partnership with Raptor and Wildlife Refuge of Tasmania Inc.

The Tasmanian Government is also supporting the Raptor and Wildlife Refuge of Tasmania Inc to establish a dedicated telephone hotline for reporting of injured birds, helping to ensure they can be located and collected for treatment as soon as possible. This organisation and many other volunteer wildlife carers make a significant contribution to rehabilitating and releasing back into the wild threatened raptor species such as the white-bellied sea eagle (*Haliaeetus leucogaster*), wedge-tailed eagle (*Aquila audax fleayi*) and the grey goshawk (*Accipiter novaehollandiae*).

The Tasmanian Government also supports Regional Natural Resource Management organisations. Tasmania has adopted an approach to natural resource management that aims at bringing together: industry, resource users, land managers and conservation interests. The *Natural Resource Management Act 2002*, provides a structure and mechanisms for delivering effective management of natural resources in the State.

The Tasmanian Government also supports Landcare Tasmania, the State's peak landcare body, whose mission it is to: represent, strengthen, support and grow Tasmania's landcare movement. Landcare Tasmania has over 200 members including groups and individuals who work on projects in their local area to improve the health of the natural and working environments. Many projects contribute directly to the protection of Tasmania's fauna.



## CASE STUDIES

### THE SHY ALBATROSS

The Department maintains a long-term monitoring and conservation program for the shy albatross (*Thalassarche cauta*). The shy albatross is listed as threatened on both the *Threatened Species Protection Act 1995* and the *Environment Protection and Biodiversity Conservation Act 1999*. The program includes collaboration with World Wildlife Fund (WWF), CSIRO and the Commonwealth Department of Environment and Energy and is currently focusing on building understanding of the impacts of climate change, and developing practical options to increase resilience of the shy albatross.

These measures include the deployment of artificial nests to increase breeding success, and disease management to improve chick health. During the 2017-18 breeding season, 120 artificial nests were deployed on Albatross Island, one of only three islands on which Shy albatross breed.



Photo: Brett Littleton

### THE SOUTHERN RIGHT WHALE

The Department is also collaborating with inter-state counterparts to progress priority conservation monitoring for the southern right whale (*Eubalaena australis*) funded by the National Environmental Science Program (NESP) and administered through the CSIRO. The southern right whale is listed as endangered on both the *Threatened Species Protection Act 1995* and the *Environment Protection and Biodiversity Conservation Act 1999*.

The project will facilitate a comprehensive update of the Australian Right Whale Photo-Identification Catalogue (ARWPIC) which holds photographs of southern right whales. Individual whales are recognisable by their unique patterns of callosities (areas of thickened, roughened skin on the head of the whale, typically inhabited by amphipod crustaceans giving a white appearance).

The project will then undertake capture-mark-recapture analyses of the resulting data-set to estimate total population abundance and identify the extent of exchange between important breeding and migration areas across southern Australia and New Zealand.



### SAVE THE TASMANIAN DEVIL PROGRAM

The Tasmanian devil (*Sarcophilus harrisii*) is listed as endangered on both the *Threatened Species Protection Act 1995* and the *Environment Protection and Biodiversity Conservation Act 1999*.

The latest estimate of changes in the Tasmanian devil population since the first report of Devil Facial Tumour Disease (DFTD) shows a state-wide decline in sightings of devils of more than 80 per cent. Tasmanian Government funding to the Save the Tasmanian Devil Program is approximately \$2.65 million per annum.

The major focus of the conservation program is currently on Wild Devil Recovery, which aims to supplement wild populations depleted through DFTD with translocated healthy, genetically diverse devils. Since 2015, 112





devils have been released at four locations across the state (Narawntapu National Park, Stony Head Military Zone, Wukalina/Mt William National Park and Buckland Military training Area).

In addition to wild devil recovery, funding supports the management of devils across intensive captive facilities, free-range enclosures and in isolated populations on Maria Island and Forestier Tasman Peninsulas, and allows for collaboration with research institutes including the University of Tasmania, University of Sydney and the Menzies Institute.

## THE ORANGE-BELLIED PARROT PROGRAM

The Orange-bellied Parrot (*Neophema chrysogaster*) is listed as endangered on the *Threatened Species Protection Act 1995* and as critically endangered on the *Environment Protection and Biodiversity Conservation Act 1999*.

The Tasmanian Government supports the recovery of the Orange-bellied Parrot through on ground monitoring and management of wild birds at Melaleuca, by maintaining a captive insurance population and by hosting the Zoo and Aquarium Association's Species Coordinator. Tasmanian Government investment represents more than \$470 000 per annum.

On ground management includes monitoring of breeding success, health, population size and survival in the wild, provision of artificial nest boxes, supplementary feeding and mitigation of threats posed by disease, competitors and predators.

The Department has also designed an ecological burn program to improve the habitat for the OBP. In March this year, the Parks and Wildlife Service undertook ecological burns at Melaleuca and Cox Bluff in Southwest National Park to help regenerate important habitat areas for the species.

The cornerstone of population recovery efforts has been the release of captive-bred birds to supplement the wild population and boost breeding and fledgling success in the wild. In recognition of the critical importance of a fit-for-purpose captive breeding facility to the ongoing fight to save the Orange-bellied Parrot, the Government has committed \$2.5 million for a new facility which will significantly expand the captive breeding capacity, doubling the number of birds available for release to the wild.



Photo: Barry Baker

## THE SWIFT PARROT

The swift parrot (*Lathamus discolor*) is listed as endangered on both the Tasmanian *Threatened Species Protection Act 1995* and the *Environment Protection and Biodiversity Conservation Act 1999*.

The population size of the Swift parrot is very difficult to assess, but it is estimated to be around 2 500, with perhaps 1 000 breeding pairs.

The Tasmanian Government has a whole of Government approach to address risks to the swift parrot in Tasmania. This includes the management of sugar gliders recognising their impact on the breeding success of swift parrots and maintaining the existing moratorium on harvesting on Permanent Timber Production Zone Land on Bruny Island, pending further research.

Tasmania also continues to be engaged with the process of reviewing and remaking the National Recovery Plan for the Swift Parrot, and are supporting a socio-economic study of the swift parrot management to better understand the optimal interventions to mitigate threats to the species.



Photo: Dave Watts

## TASMANIA'S FOREST PRACTICES SYSTEM

Tasmania's forest practices system also contributes to the protection of the State's fauna species. The Forest Practices System is given effect by the *Forest Practices Act 1985* which defines and regulates forest practices activities in Tasmania. The *Forest Practices Act 1985* establishes the Forest Practices Authority (FPA) as the regulator of forest practices in Tasmania. It also provides for, and gives statutory power to the Permanent Native Forest Estate Policy (PNFEP) and the Forest Practices Code (the Code).

The PNFEP is in place to ensure the maintenance of the native forest resource base for all its various conservation, production and amenity values by placing limits on broadscale clearance and conversion of native forest in Tasmania. The policy does not aim to maintain the native forest estate exactly as it is, because forest condition will change from place to place and from time to time through regeneration, after fire or harvesting, and through natural succession as forests age. Rather, the policy regulates how native forests are to be maintained as they are managed for a variety of uses.

The Code applies to forest practices on all land tenures and is a statutory instrument issued by the FPA. The purpose of the Code is to 'prescribe the manner in which forest practices shall be conducted so as to provide reasonable protection to the environment'.

All forest practices, other than circumstances prescribed in Regulation 4 of the *Forest Practices Regulations 2007*, require a forest practices plan (FPP). FPP's must be prepared and implemented in accordance with the Code.

The Code provides a practical set of guidelines and standards for the protection of environmental values including those relevant to the protection of fauna.

The Code specifically encapsulates management of listed Matters of National Environmental Significance under the *Environment Protection and Biodiversity Conservation Act 1999* relevant to forest management, including: World and National Heritage, wetlands of international significance, listed threatened species and communities and listed migratory species.

Threatened species are protected within the forest practices system through the Code. This requires the management of threatened species to be in accordance with procedures agreed between the FPA and DPIWVE for the management of threatened species under the forest practices system.

Examples of management prescriptions include requirements to retain a defined percentage of nesting or foraging habitat for specific listed species, distance buffers to protect specific cultural and natural values, such as nests and dens, and requiring certain forest harvesting activities to be carried out, outside the breeding season of a particular species.

## CONCLUSION

Tasmania and its more than 300 offshore islands, are well placed to ensure the ongoing protection of its unique fauna species. The nature of the islands isolation has both shaped the evolution of the Tasmanian fauna and provides it with a bio-secure advantage in preventing incursion of pest species that might threaten the islands fauna.

Tasmania maintains a large and diverse area of natural habitat, around half of which is in the reserve system. Regulatory controls on activities in the reserve system and contributions by the Tasmanian community on private land and partnerships all contribute to protecting the State's unique fauna.

The Tasmanian Government provides this submission to the Senate Standing Committee's Inquiry into the 'faunal extinction crisis' as an overview of the activities occurring in the State and would welcome the opportunity to provide more information if desired by the Committee.



