

# REGIONAL NRM STRATEGY DEVELOPMENT

## FAUNA ASSETS

### SOUTHERN REGION

#### 1. Overview of the fauna assets within the region

The Southern Region of Tasmania incorporates a wide range of climatic and topographic variables ranging from the mediterranean type climate of the Freycinet peninsula and some parts of the east coast to the incessantly wet parts of the South-west buffeted by cold wet southerly weather: from brilliant white beaches and coastal plains to the high alpine peaks and plateaux. Away from the coast, the terrain is generally rugged and heavily undulating, with numerous high alpine peaks, narrow valleys and some lowland coastal plains. This extreme range in climate, altitude and topography provides for a broad range of faunal habitats including coastal, heaths, grasslands, dry forest, wet forest rainforest, subalpine and alpine.

The Region includes the most heavily populated parts of Tasmania with greater Hobart having more than 40% of the Tasmanian population whilst conversely the South-west is one of the most isolated parts of Australia. Despite its relatively undisturbed nature it is not the South-west where the greatest biodiversity is to be found in but in the drier east of the State.

The coastline of the Region is extremely contorted and includes many large and small Islands. The larger islands include Maria and Bruny but it is the smaller Islands, which are particularly important for seabird and seal colonies in Tasmania.

- Colonies of shy albatross and gannets breed on Pedra Branca and Eddystone Rock off the south coast. Enormous short-tailed shearwater colonies occur on Maatsuyker, Muttonbird, Louisa and Flat Witch Islands. The fairy prion colony on Ile du Golfe contains approximately 350,000 breeding pairs. Pedra Branca rock is also home to the unique and endangered Pedra Branca skink. Tasman Island is the only recently confirmed breeding site for the rare sooty shearwater in Tasmania.
- Large populations of Australian and New Zealand fur seals occur in the seas around the Region. The only breeding colony is on Maatsuyker Island where up to 100 New Zealand fur seal pups are bred each year. Haul-outs of Australian fur seals occur on Isle de Phoque, Hippolyte Rocks, Tasman Island/Cape Pillar, Cape Raoul, The Friars, Pedra Branca, Tasman Island, Maatsuyker Island, Walker Island, and Needle Rock etc with a total of app 3,500 seals in the Region. In recent years elephant seals have bred regularly at Maatsuyker Island with up to 4 pups being born annually.
- Most species of Tasmanian mammals occur in the Region although the larger carnivores, like the spotted tail quoll and Tasmanian devil are uncommon in the far South-west. The endangered New Holland mouse is restricted to

Freycinet and north through Friendly Beaches to the regional limit just north of Bicheno. The barred bandicoot occurs commonly in the South-east, especially in the Huon Valley, one of its strongholds in Tasmania. This species is almost extinct on the mainland. The southern Midlands, particularly in the large sheep runs, provides exceptional bettong habitat and a small pocket of bettongs occurs along the Lyell Highway as far west as Lake St Clair. All 8 of the known Tasmanian bats occur in the Region.

- All of Tasmania's endemic birds occur in the Region. In excess of 95% of the endangered 40-spotted pardalote population breed on Maria and Bruny Islands. The buttongrass plains of the South-west provide extensive habitat for two icon species, the ground parrot and the emu wren. Ten of Tasmania's 12 species of birds of prey including owls breed in the Region. The exceptions being the whistling kite and the Australian kestrel. Many pairs of both the wedge-tailed eagle and the sea eagle breed in the Region, the rugged coastline being particularly suited to sea eagles.
- There are significant areas of karst in the Region, the most notable being at Hastings Caves and Ida Bay. These systems have an unusual and sometimes unique cave invertebrate fauna component. Many of these species are on the threatened species list.
- There are four Ramsar sites in the Region. Three of these sites were approved on the basis of their faunal values. They are Apsley Marshes – Waterfowl and wetland birds and flora, Moulting Lagoon – waterfowl and migratory waders, Pitt Water/Orielton – migratory waders and the threatened seastar, Lake Crescent – primarily two flora species, also waterfowl and an endemic galaxias.
- Important migratory wading bird locations in the Region apart from the Ramsar sites include Lake Dulverton, Frederick Henry/Mortimer Bay, the Derwent river marshes and the Huon estuary.
- Ten of the eleven Tasmanian frog species occur in the Region. One, the moss froglet, occurs only in this Region. Only discovered in 1992 in the Hartz mountains, this unique frog is known from approximately 10 restricted locations in the South-west.
- All of Tasmania's snakes are found in the Region as are 14 of the 18 lizards. The majority of the Tasmanian population of the mountain skink is restricted to mountain tops in the Region, and the Pedra Branca skink is found only there.

## **2. Current fauna asset condition**

- The condition of the native mammal populations in the Region is generally good. Barred bandicoots continue to thrive in the Huon valley and south down to Dover. Potoroos, often overlooked, are still quite common in the south. Tasmanian Devils are particularly common in the northern part of the Region, but less so in the south. They are generally absent from the Tasman Peninsula. The recent occurrence of facial tumours in Tasmanian devils from many parts of the State is of concern. The New Holland mouse population in the Coles Bay area and northwards is in a precarious state and is in need of management, monitoring and protection. Bettongs occur widely in the eastern part of the Region.

- Most Ramsar sites are in good condition, with the exception of Lake Crescent where there have been problems. Their status as wetlands of international significance has ensured they receive priority conservation consideration in their management. The Pitt Water/Orielton Ramsar site is in relatively good condition.
- Apart from Ramsar wetlands there are other significant freshwater wetlands in the Region, particularly in the coastal margins which are under some pressure from drainage, damage by cattle and nitrification through agricultural run off. Lake Dulverton has been mostly dry for many years. The shallow film of water covering part of the lake provides a significant habitat for waterfowl and wading birds.
- The significant karst areas in the Ida Bay and Hastings Caves region, and around Junee, are generally in good condition. Hastings Caves is subject to substantial public visitation and is therefore not in as natural condition as the others. The impacts of heavy public useage on cave fauna are not well known. There is a good deal of other karst in the Region (eg. the Weld, Vanishing Falls, Mt Anne, etc), much of it undisturbed.
- Bird of prey populations are generally healthy. The larger raptors like the wedge-tailed eagle and sea eagle and grey goshawk continue to be subject to electrocutions on power poles.
- Frog and reptile populations are generally in good shape. The threatened green and gold frog appears to have a reduced population level in southern Tasmania. The regional stronghold appears to be in the Richmond area but populations still persist around Ouse, Hamilton, Oatlands and in suitable locations on the east coast. There is no evidence that any of the reptile populations are under increased threat. The Pedra Branca Skink population appears to be reasonably stable albeit at a particularly low level.

### **3. Issues associated with, or threats to the fauna assets**

- A major threat to the faunal assets of the Region and the whole of Tasmania is the potential for the establishment of foxes in Tasmania. Ongoing support is required at all levels to rid the State of foxes and maintain a fox status free status for the Region. The entire small mammal fauna of the State is at risk from the establishment of foxes. Within the Region, activity has been focussed on the Colebrook area where there have been good sightings.
- The loss of heathland habitat on the east coast is a threat to the New Holland mouse and competition due to the spread of the house mouse may also be an increasing issue.
- There is some evidence of a decline in the population levels of the little penguin around the State, especially in the South. Gill netting around the coast may be a contributing factor. Gill netting also impact on muttonbirds, and there has been a recent event where a sea eagle drowned after becoming entangled in a gill net.
- The threats to the large seabird colonies off the south coast are minimal. However human disturbance to some of the colonies on Islands close to Hobart is a problem, particularly where gulls and terns breed. Breeding birds are easily and often disturbed by yachtsmen and fishermen landing on islands during the breeding season. These islands include Spectacle Island, Green Island and Vischer Island, and some small inshore Islands at Coles Bay.

- The Ramsar wetlands are subject to international agreement and therefore there are national responsibilities to ensure their integrity remains intact. Pitt Water/Orielton is subject to increasing spread of human dwellings and increased shellfish farming in the area. Degradation of many freshwater wetlands, so important to waterfowl and frogs, through drainage and stock damage is an ongoing concern around Tasmania.
- In the midlands there has been significant loss of habitat for the threatened Ptunarra brown butterfly in the past decade.

#### **4. Current response to issues and threats**

- The fox eradication program is currently under way and should continue until we can be satisfied that foxes have been eradicated.
- Pest fauna in the WHA are managed through programs developed and implemented by DPIWE (Nature Conservation Branch) and the Parks & Wildlife Service.
- Some monitoring of the Ramsar wetlands does occur but more rigorous survey is perhaps warranted, particularly in those sites in which fauna was a prime reason for their being classified Ramsar sites.
- Property based farm management programs being currently developed will be a significant way to protect important conservation values on private land. With the increased farming activity in the south-east, the opportunity exists for substantial conservation gains. The Property Based Game Management planning process has provided an important means of sustainably managing wildlife on farms where problems occur.
- Key wading bird habitat in the Region has been monitored over many years by Birds Tasmania. They publish regular lists of species recorded and their numbers and keep a close watch on population trends.
- Much work has been carried out in the midlands of Tasmania to map the extent and quality of Tasmanian native grasslands. The information from these surveys will be used to target the most important habitats (eg. for the Ptunarra brown butterfly) for vegetation management agreements with landowners.

#### **5. Productive use and other opportunities in relation to the fauna assets**

- There is a plethora of opportunities for wildlife ecotourism and wildlife viewing in the Region. Mt Field National Park and the WHA contain many of the larger mammals and a broad range of flora and fauna at a range of altitudinal levels.
- There are many opportunities for visitors to experience penguin and muttonbird watching at dusk and after dark, within very close proximity to Hobart
- There is substantial potential for ecotourism ventures and holidays in the south Midlands. Many large properties have a particularly diverse range of wildlife on their properties. Property based holidays are increasingly popular Australia wide.
- Large seal populations occur around the southern parts of Tasmania. There is a wonderful opportunity to extend the irregular sea bird and seal watching

trips out from Eaglehawk Neck and elsewhere in the south. These trips could possibly be combined with fishing trips.

- Wallaby and waterfowl shooting are important recreational pursuits in the Region. Deer hunting is a most significant recreational pursuit in the midlands. Trout and sea fishing has significant social and ecotourism benefits in several parts of the Region. Fly fishing in put-and-take lakes are becoming increasingly popular in Tasmania.
- Single engined plane flights to the south-west at Melaleuca and Cox's Bight are increasingly popular with visitors, especially if they are given the opportunity to see the endangered orange-bellied parrot.

## **6. Available data and its usefulness**

- The current taxonomy of Tasmanian fauna follows that detailed by Smith in the *Checklist of the Vertebrate Animals of Tasmania*.
- The State of the Environment Report provides useful information on the range of faunal biodiversity in the State.
- The principal source of information on recorded Tasmanian fauna locations is the GTSpot database. This provides spot data for Tasmanian fauna, but principally the larger fauna species, ie. mammals and birds. This database is particularly valuable, as it has been in operation for approximately twenty years with new records being submitted on a regular basis.
- The *Threatened fauna manual* and *Threatened fauna adviser* maintained by the Forest Practices Board provide comprehensive data on forest dependent threatened species locality and recommended management prescriptions.
- Many of the State's National Parks have inventory lists of birds and mammals known to occur within individual parks. Often these are contained in the management plans for those parks. There are management plans for a number of species subject to harvesting or which are of special significance, including, forester kangaroo, short-tailed shearwater and brush-tailed possum
- The results of many years of spotlight and roadkill surveys are available from DPIWE (Nature Conservation Branch) to provide population trends for many mammal species. Likewise regular surveys have been carried out over many years to monitor waterfowl, migratory waders and muttonbird populations around the State. The Shorebird directory is a particularly important document addressing coastal bird conservation.
- There are national Threat Abatement Plans for foxes, feral cats, goats and rabbits all of which apply to the Region.
- For freshwater faunal resources, the WIMS dams database is useful in identifying dam habitats and also identifying those rivers and creeks with no dams. The river classification database is also a useful for fauna management.
- Invertebrate studies in some parts of the WHA and other parts of the Region have been carried out by specialists.

## **7. Information gaps and actions required to fill those gaps**

- Better surveys are needed of some of the groups like the smaller mammals and reptiles and amphibians, particularly those identified as threatened. Faunal surveys should be encouraged to fill those gaps.

- Invertebrate diversity is particularly poorly known. Systematic surveys are required in all major habitat types.
- The Statewide wetlands inventory needs to be completed and a process developed to monitor wetland condition. This is especially important in this Region where some of the best wetlands occur.
- A number of activities relevant to JAMBA, CAMBA or Ramsar require attention and plans not already finalised need to be completed.
- Assessments should be made of the security of regional populations of larger mammals including the, eastern barred bandicoot, platypus, eastern quoll and Tasmanian devil. None of these species is currently on the threatened list.
- A focussed investigation should be carried out to identify those faunal species not listed as threatened, but which may be approaching listing status and their management needs be identified and addressed to keep them off the lists.

#### **8. Current Aspirational, Resource Condition, and Management Action targets for the asset (at national, state and/or regional level) and any progress towards targets**

A key target for faunal management under the NRM system is to manage our natural resources in a sustainable manner for the long term, achieving a balance between economic and social development. This requires a good understanding of those natural values and having in place the processes whereby the important natural resources are identified so that decisions are taken which will minimise any impact on significant faunal habitats and species. A priority is to increase provision of nature conservation on private land. This will be best achieved through a property based management planning process.

**Tas Together** identified the following goals:

- Maintain or improve natural heritage, including biodiversity etc. **Tas Together Goal 22.**
- To understand, protect and manage our globally significant natural resources. **Tas Together Goal 23.**
- To limit conversion of land with native vegetation:, to sustainably manage old growth forests and to phase out clear felling in those forests:, to develop and implement fire management regimes appropriate for protecting environmental values:, to reduce the reliance on chemical use by primary industry:, to reduce the adverse impacts of pest weeds and pathogens:, to optimise public use of the natural environment consistent with maintaining natural values. **Tas Together Goal 24.**
- Improve the long-term protection and management of natural diversity on private land. **Tasmania's Nature Conservation Strategy 2002-2006.**

#### **9. Proposed targets for asset (at the national, state and/or regional level)**

- Maintenance of sufficient good quality faunal habitat to sustainably support the Region's faunal values.
- Clear evidence that the State is fox free.

- No new additions to the threatened species lists due to activities or actions within the Region.
- Landowners encouraged to protect native fauna habitat on their land through property management planning.
- An information system in place where fauna with a near threatened status are identified, their distribution and habitat needs are understood and management needs are identified. Where appropriate, management plans should be prepared.
- Maintain the water quality and riparian habitats of waterways in the Region.
- Maintain the integrity of the seabird breeding colonies throughout the Region.

#### **10. Suggested achievable actions to achieve these targets**

- Continue to provide all necessary support for the Fox Free Tasmania program.
- Provide support for integrated property management planning processes in which nature conservation is an integral part. Ensure that the appropriate management of faunal values is addressed in that process.
- Develop an information system for near threatened species and identify important habitats for protection and appropriate management within the Region.
- Make use of GTSpot database and ensure new records resulting from regional surveys are included in the database.
- Provide support the completion of the Tasmanian Wetlands Directory and adopt the recommendations contained in the Wetlands Strategy, to be released shortly.
- Undertake a survey to identify the condition of wetlands in the Region and manage them appropriately.
- Complete the preparation of Ramsar management plans and agreement. In particular prepare management agreements for Ramsar sites on private land.
- Undertake sampling of Tasmanian devil populations to determine the extent of occurrence of facial tumours.
- Improve faunal inventories (particularly for invertebrates) for the Region.
- Maintain the spotlight and roadkill surveys to determine population trends in native fauna.

#### **11. Relevant publications**

*Australian Nature Conservation Agency. 1996 Threat Abatement Plan for predation by the European Red Fox. ANCA Canberra.*

*Biodiversity Group EA. 1999. Threat Abatement Plan for Competition and Land Degredation by Feral Goats. Environment Australia. Canberra.*

*Biodiversity Group EA. 1999. Threat Abatement Plan for Competition and Land Degredation by Feral Rabbits. Environment Australia. Canberra.*

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*Bryant S* In prep. A shorebird directory for Tasmania

*Driessen M. & G. Hocking 1992.* Review and analysis of spotlight surveys in Tasmania: 1975 – 1990. Dept. of Parks, Wildlife and Heritage, Hobart. 92/1

*Dunn H. 2002* Assessing the condition and status of Tasmania's Wetlands and Riparian Vegetation. NCB Technical Report 02/09 DPIWE. Hobart.

*Garnett S T & GM Crowley 2000* The Action Plan for Australian Birds. Natural Heritage Trust for Environment Australia. Canberra

*Gouldthorpe J, & L. Gilfedder 2002.* Bioregional summaries of the Biodiversity component of the National Land and Water Resources Audit. NCB Technical Report 02/07. DPIWE. Hobart

*Green R. H. 1995* The Fauna of Tasmania: Birds. Potoroo Publishing. Launceston.

*Hutchinson M, R. Swain, & M. Driessen 2001* Snakes and Lizards of Tasmania. Fauna of Tasmania Handbook No 9. University of Tasmania. Hobart.

*Martin AA, & M J Littlejohn 1982* Tasmanian Amphibians. Fauna of Tasmania Handbook No 6. University of Tasmania. Hobart.

*McQuillan PM & J Virtue 1994* Butterflies of Tasmania. Tasmanian Field Naturalists Club inc. Hobart.

*Nebois A. 1981* Tasmanian Caddis Flies. Fauna of Tasmania Handbook No 4. University of Tasmania. Hobart.

*Smith BJ & RC Kershaw. 1981.* Tasmanian Land and Freshwater Molluscs. Fauna of Tasmania Handbook No 5. University of Tasmania. Hobart.

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*Thomas D. 1979.* Tasmanian Bird Atlas. Fauna of Tasmania Handbook No 2. University of Tasmania. Hobart.

*Watts. D. 1999.* Field Guide to Tasmanian Birds. New Holland Publishers. Sydney.

