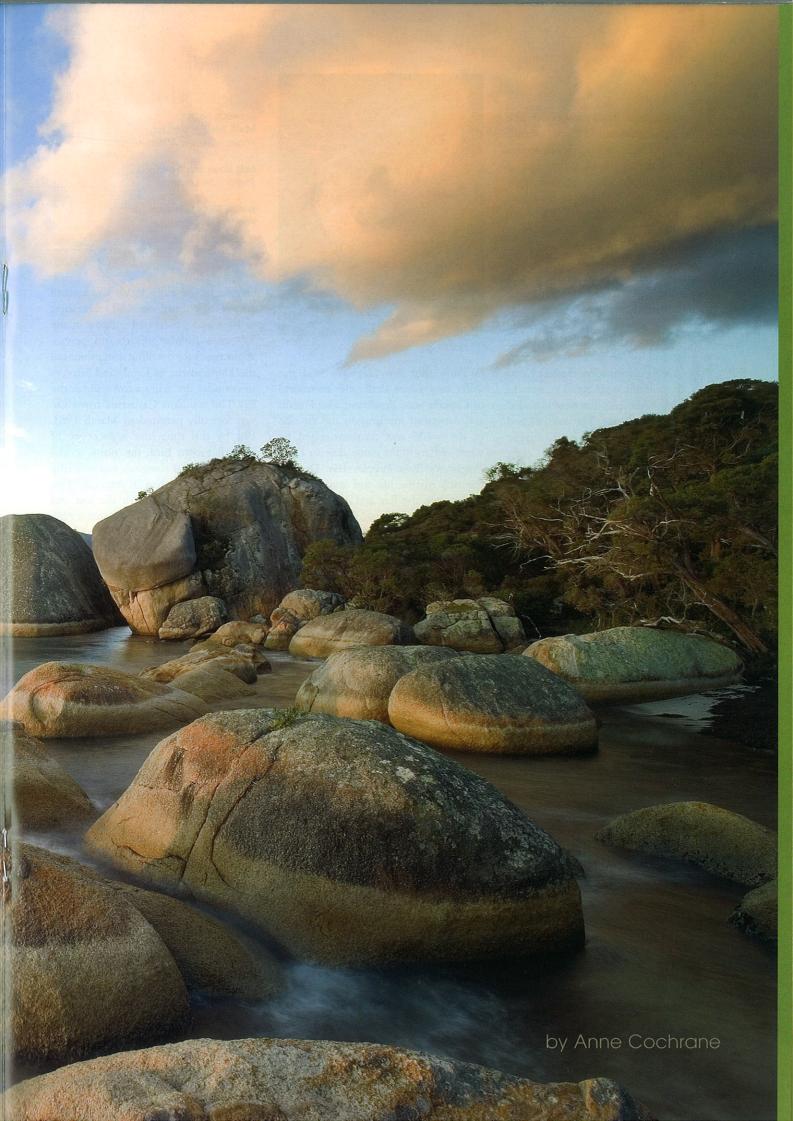
TWO PEOPLES BOY Nature Reserve This natural

This natural wonderland near Albany harbours some of the world's most threatened animals.





wo Peoples Bay lies between the massive granites of Mount Gardner and Mount Manypeaks, 35 kilometres east of Albany on the far south coast of Western Australia. The high rocky hills around Mount Gardner (408 metres above sea level) form a headland on the south side of the bay, protecting it from heavy Southern Ocean swells.

The granite coastline to the east, north and south of Mount Gardner is very steep and deeply incised to form streams that descend to the sea. The islands that surround the coast are the crests of drowned granite hills. The area is underlain by rocks of the Albany-Fraser Orogen formation created 1,200 to 1,400 million years ago. These rocks are ancient sediments that were intruded by bodies of granite. The undisturbed coastline and diversity of landscape features, such as the shoreline, cliffs, beaches, reefs, offshore islands, headlands, mountain peaks, dunes, lakes and various vegetation associations, contribute to the area's spectacular scenery.

History

Although the land around Two Peoples Bay was occupied by the Minang Aboriginal people, the name of the area came about through a chance meeting in 1803 between Captain Nicolas



Baudin's ship the *Geographe* and the sealer brig *Union* under the command of Captain Isaac Pendleton. The French and American meeting on the far side of the world was commemorated by white settlers in the name *Baie des Deux Peuples*, or Two Peoples Bay. Due to the rich marine life and availability of fresh water, the bay and adjacent areas became an early focus for sealing and whaling activities in the first half of the nineteenth century.

For many years, Two Peoples Bay was used by commercial fishers and became a popular recreation area for Albany residents with picnics and fishing being the main activities. Shacks were first Previous page

Main Two Peoples Bay.

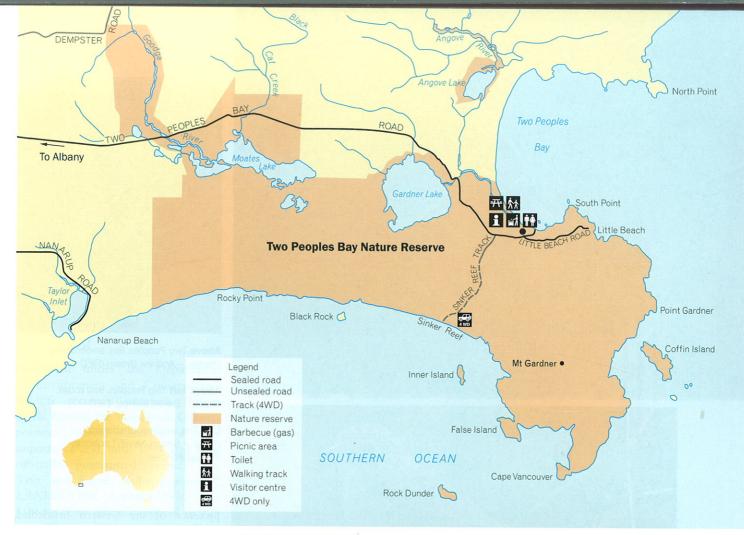
Photo – Damon Annison

Left Nosiy scrub-bird. *Photo – Jiri Lochman*

Below Mount Gardner. Photo – Jiri Lochman

erected in the early 1930s and a small reserve for camping and recreation was set aside. Increased interest in the bay as a holiday resort and private applications for dwelling sites prompted the Department of Lands and Surveys to consider declaring a town site at the bay. The resultant Casuarina town site was formally gazetted in March 1961. But by this time, the rediscovery of a small brown bird, the noisy scrubbird (Atrichornis clamosus), not officially sighted for more than 70 years (see 'Two Peoples Bay: a haven for the lost and found', LANDSCOPE, Winter 1996), had conservationists from around the world clamouring to protect the bird's habitat. After several years of debate and discussion it was agreed that the Casuarina town site plan should be cancelled and a reserve created for the conservation of fauna instead.





The Two Peoples Bay Nature Reserve was formally gazetted in 1967 and covers the entire headland, the adjacent islands and the short isthmus connecting to a wetland system of lakes, streams and swamps—remnants of an estuary in the Pleistocene era.

Floral diversity

The landforms and soils support a diversity of vegetation associations, with more than 30 plant communities identified. Tree-dominated communities classified as low forest are prominent to the north of Moates Lake, but also occur on the margins of the lakes and along the major streams of the wetland system, around the picnic area and in small pockets in deep gullies on Mount Gardner. Woodlands are found to the north of Moates Lake as well as on the dunes between Moates and Gardner lakes and the north-eastern slopes of the Mount Gardner headland.

Low heath and shrublands dominate the isthmus area on limestone and calcareous sands and extend to the deeper sands at higher levels around the headland. Dense scrub and thicket dominate much of the headland occurring in gullies and on the slopes.



Above Velvet rush.

Photo – Anne Cochrane/DEC

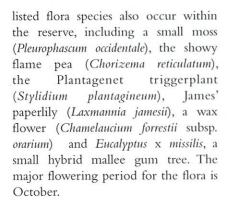
The 622 vascular plant species recorded in the reserve reflect the great floristic richness of south-western Australia. The reserve is comparatively rich in species of Orchidaceae and Liliaceae. Other important families include Proteaceae, Myrtaceae, Papilionaceae and Epacridaceae. The genera with the largest representation are triggerplants (Stylidium), beard heaths (Leucopogon), spider orchids

(Caladenia), wattles (Acacia), Banksia and Hakea.

The reserve has three declared rare species: the pine-leaved andersonia (Andersonia pinaster), the grand spider orchid (Caladenia huegelii) and the granite banksia (Banksia verticillata). A number of priority conservation-







Noisy scrub-bird haven

In addition to the threatened noisy scrub-bird, the reserve has an unusually rich bird life. Some of the 188 species recorded are sea birds, like the great-winged petrels (*Pterodroma macroptera*), flesh-footed shearwaters (*Puffinus*

carneipes) and little penguins (Eudyptula minor), which breed on Coffin Island. Others are trans-equatorial waders or nomadic species of honeyeaters, lorikeets and pardalotes, which appear in response to seasonal blossom. The majority, however, are residents that breed within the reserve. For the noisy scrub-bird, the management of habitat and a long running translocation have seen breeding program populations of scrub-birds established between Two Peoples Bay and Cheynes Beach, with a number of birds also found on Bald Island. Wildfire is a key threat to the survival of these mostly ground-dwelling birds and, in recent years, more than half of the population was lost in a single wildfire on nearby Mount Manypeaks. In addition, the



Above Two Peoples Bay andersonia. Photos – Andrew Brown/DEC

Above left Two Peoples Bay moss. *Photo – Sarah Barrett/DEC*

Left The western bristlebird. Photo – Simon Nevill/Lochman Transparencies

presence of the western bristlebird, the heath sub-species of the western whipbird and the Australasian bittern further increase the reserve's status for bird conservation.

Mammal refuge

The nature reserve is also a haven for a number of rare and uncommon mammals. A total of 28 mammals have been recorded. Twelve of these are native marsupials, 10 are other native mammals and six are introduced species. The mammal fauna is typical of the wetter areas of the south coast with many species at or near the eastern limit of their range. The quokka (Setonix brachyurus), relatively scarce on the mainland, is of note at Two Peoples Bay. The honey possum (Tarsipes rostratus) is present in heaths and scrub despite the reduction of many of its preferred food sources as a result of the plant pathogen, commonly referred to as Phytophthora dieback. The diggings of the quenda or southern brown bandicoot (Isoodon obesulus) are widespread and individuals are often seen during the day crossing roads and tracks within the reserve. Western ringtail possums (Pseudocheirus occidentalis) are occasionally seen in the low forest trees on Mount Gardner. Sightings of mammals in the reserve have increased since foxes have been

Right Gilbert's potoroo. *Photo – Jiri Lochman*

Below South western carpet python. *Photo – Alan Danks/DEC*

Below right Banjo frog. *Photo – Andy Ballard*

controlled under the Department of Environment and Conservation's wildlife recovery program Western Shield. Among the marsupials, Gilbert's potoroo (Potorous gilbertii) is of major importance and, until 1994, had been officially proclaimed extinct (see 'Lost and found: Gilberts potoroo', LANDSCOPE, Autumn 1995) and had not been officially sighted in 125 years. The population comprises fewer than 40 animals and the species is regarded as Australia's most threatened mammal. Steps taken to ensure the ongoing survival of this small mammal include a comprehensive demographic monitoring program that involves radio tracking and trapping animals, cross fostering of animals (see 'Cross-fostering Gilbert's potoroo', LANDSCOPE, Autumn 2008), translocation of individuals to a nearby island, away from foxes and cats (see 'Bald Island getaway for Gilbert's potoroo', LANDSCOPE,



Spring 2005) and the establishment of a new fenced mainland population.

Other life

The freshwater systems of the reserve appear to be at the western or eastern limits of a number of endemic fish species, including the threatened trout minnow (Galaxius truttaceous), known from only a few locations in the Albany area. Several frog species have been recorded from the reserve including the moaning frog (Heleioporus eyrei), the motorbike frog (Litoria moorei), the banjo frog (Limnodynastes dorsalis) and the slender tree frog (Litoria adelaidensis). Reptiles found in the reserve include oblong turtles (Chelodina oblonga), marbled geckos (Christinus marmoratus), King's skink (Egernia kingii), carpet

pythons (Morelia spilota subsp. imbricata), bobtails (Tiliqua rugosa subsp. rugosa) and southern heath monitors (Varanus rosenbergi). Many of these reptiles can be either seen or heard when walking at Two Peoples Bay. In recent years a population of the trapdoor spider 'Moggridgea' was found in a gully on Mount Gardner. This spider's ancestors occurred at the time of the supercontinent Gondwana.

The sea adjacent to the reserve also has high conservation value and provides feeding areas for many marine mammals. Marine mammals recorded off Two Peoples Bay include the







Left Looking towards Mount Manypeaks from the east.

Photo - Michael Pelusey

Below Yellow navel. Photo - Neale Bougher/DEC

Exploring Two Peoples Bay

Two Peoples Bay is an important area for scientific study but still provides opportunities for public recreation and enjoyment. More than 55,000 visitors a year are attracted to the area, a relatively high number of visitors for a nature reserve. Due to the rare fauna species found at Two Peoples Bay, public recreational activities are kept to a minimum, with low-impact recreation such as nature pursuits favoured. The beaches of Two Peoples Bay are clean and white and the waters cool and clear. In particular, the calm protected waters of Little Beach, nestled between lichencovered granite headlands, are ideal for swimming. Crystal clear waters make diving a popular activity and the fish life is outstanding, drawing recreational fisher folk. Due to the rich diversity of marine species in the area, the waters off Two Peoples Bay are set to become a marine reserve to conserve marine plant and animal life. A short stroll on the Two Peoples Bay Heritage Trail leads you over the headland and along the beach, taking in interesting vantage points providing fantastic views of the coastline and intersecting several different vegetation communities. Gas barbecue facilities and a grassed picnic area can be found near the main beach and a visitor centre is located nearby.

common dolphin (*Delphinus delphis*), the bottle-nosed dolphin (*Tursiops truncatus*), which is often recorded in schools of 20 or more, southern right whales (*Eubalaena australis*), which are regular visitors with females and calves sometimes present during the calving season, humpback whales (*Megaptera novaeangliae*), sperm whales (*Physeter macrocephalus*) and killer whales (*Orcinus orca*).

The reserve also has a very rich and varied fungal flora, particularly in the long-unburnt areas of heath and woodlands. Extensive surveys have revealed 441 species, the majority undescribed. Some of the more visible and highly colourful species found in early autumn to early spring include the orange fan (Anthracophyllum archeri) and the yellow navel (Lichenomphalia chromacea) fungi. The abundance of fungal species is associated with the exclusion of fire resulting in the accumulation of organic matter in and on the soil. Gilbert's potoroo is heavily reliant on underground fungi or truffles for food.

Deadly dieback

Dieback caused by the plant pathogen *Phytophthora cinnamomi* has been present in the reserve for a long time and has had a major effect on the vegetation. The consequent loss of banksia from much of the isthmus and granite hill areas may have resulted in a change from open woodland to open heath. The rare Albany banksia

(Banksia verticillata) has become extinct from the reserve due to the pathogen.

Dieback is currently affecting hakea and banksia-dominated scrub and thicket on Mount Gardner, leaving more open sedge-dominated communities. Walkers in the area are advised to keep to established tracks and should be mindful of walking in the bush in wet soil conditions. Keeping walking boots clean of mud and soil will help prevent spread of the disease to other sites. Fire may also alter the structure of the vegetation over time and the long period since fire is unusual for comparable areas of coastal vegetation. The changes occurring in the vegetation after fire and the effects of dieback have implications for the conservation of many of the reserve's unique species.



Anne Cochrane is a senior research scientist working with the Departmen of Environment and Conservation (DEC) in Albany. She can be contacted on (08) 9842 4500 or by email (anne.cochrane@dec.wa.gov.au). Information in this article is based on DEC's new publication *Discovering Two Peoples Bay Nature Reserve*. The book is available for \$6.50 from bookshops and tourist outlets, by phoning WA Naturally Publications on (08) 9334 0437, by ordering online at www.dec.wa.gov.au/shop or using the form between pages 40 and 41.

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