

Shark Bay

World Heritage Property

The Shark Bay World Heritage Property is 2.2 million hectares of land and water on the westernmost point of Australia. In this scenic icon, environmental values, tourism and indigenous beliefs come together to create a melting pot for future management.



by Sue McKenna

The local Yadgalah Aboriginal people's name for Shark Bay is Gadhaagudu, meaning 'two waters', or 'twin bays'. Yadgalah itself means 'friend'. The origins of the name Monkey Mia are unclear. Mia is the Aboriginal word for home or abode. One theory is that the bay was an anchorage for the schooner *Monkey* in the 1830s. Hence, home of the *Monkey*.

It's hard to imagine the life of pastoralists who, in the 1850s,

established sheep stations in the harsh and unforgiving country inland from the beautiful bays. The land is dotted with graves of children who died of typhoid, men who died in the shipwrecks, women who died in childbirth. The only communication was by telegraph, and getting produce to Fremantle involved taking wool and sandalwood by barge from Shark Bay to ships near Dirk Hartog Island.

One Shark Bay pastoral station was

Hamelin Station, which adjoins Hamelin Pool, an inlet that contains the most diverse and abundant examples of stromatolitic microbialites in the world. These were the dominant ecosystems on Earth for 3,000 million years, and they were able to release free oxygen—and hence (eventually) allow the first oxygen-breathing animals to evolve. On a still day, beneath the boardwalk jetty, which spans the stromatolites, you can see this process under way, as oxygen bubbles float to the surface. You can also see the deep tracks gouged by carts as they pushed their way through the 'soft rocks' to load the barges with wool more than a century ago. The soft rocks were, in fact, living stromatolites that have grown so slowly you can see the tracks even now.

In pioneering days Denham had no roads connecting it to the outside world, even though it had a pearling and fishing population of 5,000. But the pearling industry has diminished and its permanent population is now around 800. Its newer industries are nature-based tourism and fishing.

Today, the road to Shark Bay from the North-West Highway is a typewriter ribbon of black asphalt banded by red dirt. It glides through salt and gypsum pans, or birridas, winds its way past beautiful beaches and harsh limestone country, and bisects a predator proof fence across an isthmus



Previous page

Main Red Cliff Bay on Peron Peninsula in Francois Peron National Park.

Photo – David Bettini

Inset Ribbon grass, one of Shark Bay's 12 seagrass species.

Photo – Clay Bryce/Lochman Transparencies

Above left Bernier Island (top) and Dorre Island (bottom).

Photo – David Bettini

Left Stromatolites at Hamelin Pool are believed to be the world's oldest living organisms. On a clear day, visitors on this boardwalk can see their air bubbles rising to the surface.

Photo – Bill Belson/Lochman Transparencies



Above A pied cormorant colony at Dirk Hartog Island.

Photo – Jiri Lochman

Below right Big Lagoon in Francois Peron National Park.

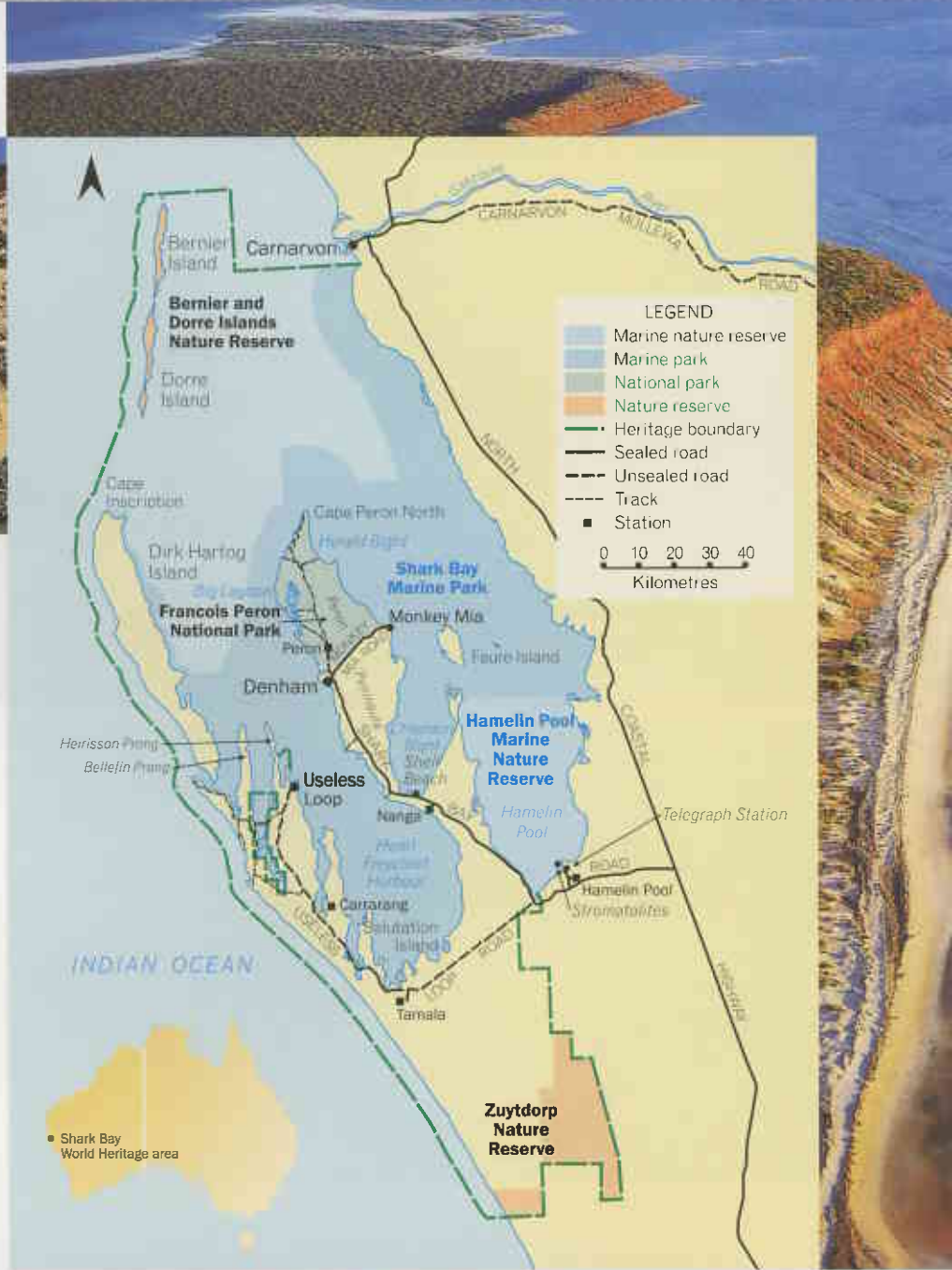
Photo – David Bettini

that protects Shark Bay's native animals from the European fox and feral cat. The road passes through the small coastal town of Denham, nestled on the edge of Francois Peron National Park, before ending in the resort settlement of Monkey Mia.

Shark Bay is renowned for the dolphins that visit Monkey Mia, but they are just one aspect of its environmental significance. The natural attractions are as varied and stunning as the land and seascapes. Steep Point, where the sheer and frightening Zuytdorp Cliffs stand sentinel to a graveyard of sailing ships smashed by the huge swells of the Indian Ocean, is as far west as you can get on mainland Australia. If you arrive by boat, it is a stunning entrance to the Shark Bay Marine Park.

Approaching the bay by boat you will see sea eagle nests on isolated islands, cormorant colonies on the cliffs, and dugongs, stingrays and dolphins in the water. Reefs stretch between Dirk Hartog Island and the Bellefin Peninsula. Further into Shark Bay Marine Park, you will find seagrass meadows and patches of coral in pristine condition.

Carefully dropping your anchor at any of the hundreds of secluded bays or inlets, you can snorkel across the coral or seagrass, admire the bird life and enjoy the breathtaking beaches fringing the fingers of land.



What is a World Heritage Property?

World Heritage Properties are listed to promote and conserve cultural and natural places of worldwide significance. There are more than 720 and, of those, 144 are listed for their natural values.

Shark Bay was listed because of its outstanding environmental significance and is one of only 16 properties that meet all four natural criteria—some of the other sites being the Grand Canyon, Yellowstone National Park, the Great Barrier Reef and the Galapagos Islands.

The criteria are as follows.

1 That the area has outstanding examples of the major stages of the Earth's history

Shark Bay has some of the most diverse and abundant examples of stromatolitic microbes in the world, which are still forming at Hamelin Pool. The only other similar example is in the Bahamas.

2 That the site contains unique, rare or superlative natural phenomena, features or formations of natural beauty

Its many peninsulas, islands and bays create exceptional arid landscapes, most notably the Zuytdorp Cliffs, Peron Peninsula, Dirk Hartog Island, and the Heirsson and Bellefin Prongs.

Other features include shell beaches, salt and gypsum pans known as birridas, contrasting colours of the dunes and cliffs of Peron Peninsula and an abundance of marine life—dugongs, dolphins, sharks and turtles.

3 That it has outstanding examples of ongoing geological processes, biological evolution and man's interaction with the natural environment

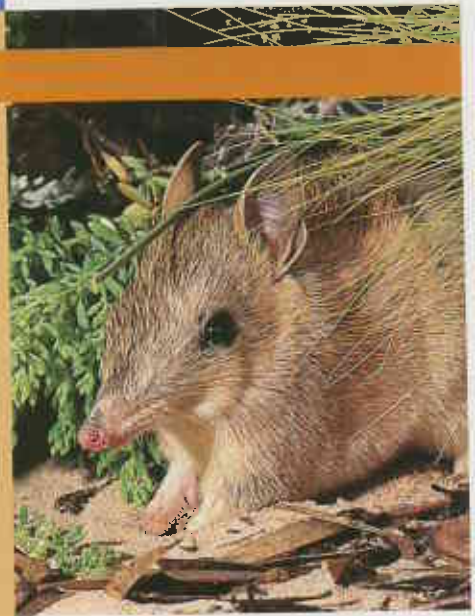
It has the largest seagrass beds in the world—4,000 square kilometres—and 12 seagrass species. The seagrass beds influence the physics, chemistry, biology and geology of Shark Bay by creating the Faure Sill, a sandbar. This sandbar restricts the tidal exchange in Hamelin Pool and keeps the water extremely salty, which is critical for the survival of the stromatolites.

Shark Bay is the junction of three climatic zones and a transitional zone for botanical species. In the marine environment, cold-water species from the south intermix with tropical species from the north.

4 That it has important and significant habitats for threatened species of plants and animals

The peninsulas and islands provide significant wildlife and refuge habitats. Of the 26 Australian mammals threatened with extinction, five are found on Barrier and/or Dorre Islands off the coast of Carnarvon. Four of these species occur nowhere else in the wild.

There are 13 threatened reptile species, including the woma python and the Baupin Island skink. There are three rare bird species including the southern emu-wren and the thick-billed grasswren. One of the world's biggest permanent dugong populations (there are about 16,000) is at Shark Bay, which also has a loggerhead turtle rookery and 35 migratory bird species. Humpback whales use the area as a staging post for migration along the coast.



Since 1991, this magical place has been known as the Shark Bay World Heritage Property—more than two million hectares of bays, inlets, islands, promontories, peninsulas, white shell beaches, red dirt and arid bush on the western edge of Western Australia. The property includes Shark Bay Marine Park, Francois Peron National Park, Zuytdorp Nature Reserve, Hamelin Pool Marine Nature Reserve, Shell Beach Conservation Park and former pastoral stations reclaimed for conservation purposes.

Francois Peron National Park

A trip by four-wheel-drive vehicle to Cape Peron, along Peron Peninsula, one of the main promontories, is a chance to see what nature has to offer in its paintbox. Red dunes rise above white sandy beaches that merge into blue ocean.

The bands of colours are incredible in their clarity and purity, and the landscape no less inspiring. Acacia and mallee shrubs hug the sand, while salt-tolerant mulberry-coloured plants cling to the crust of the birridas (salt



Above A western barred bandicoot, one of several species reintroduced to Francois Peron National Park through the Project Eden captive breeding program.
Photo – Jiri Lochman

Left The western coast of Heirsson Prong Bay under the mangrove cliffs.
Photo – Marie Lochman



Above Shark Bay has the largest seagrass beds in the world, with 4,000 square kilometres, including the Faure Sill seagrass beds pictured.
Photo – David Bettini

Right A dugong and calf above a seagrass bed.
Photo – Geoff Taylor/Lochman Transparencies



and gypsum pans) that dot the landscape. Look along any beach and you may see a line of pied cormorants sunbasking at the water's edge. Stop on any walking track and watch as a Gould's monitor (*Varanus gouldii*) crosses your path. Close your eyes and you'll hear the enchanting whistle of threatened birds such as the thick-billed grasswren (*Amytornis textilis*).

Wildlife that was once threatened by introduced predators such as the fox and the feral cat are now returning to the Francois Peron National Park, thanks to the Department of Conservation and Land Management's (CALM's) Project Eden captive breeding and reintroduction program.

The land in Shark Bay consists of two main promontories and several islands including Bernier, Dorre (two of Australia's most important mammal conservation reserves) and Dirk Hartog islands. One of the promontories is the Peron Peninsula, which once supported the Peron Station pastoral lease. The other promontory is Edel Land, which includes Heirrisson and Bellefin prongs. There are several smaller islands, important as seabird nesting sites.

In 1990, CALM bought Peron Station, which covered most of the Peron Peninsula. More than 17,000 sheep were removed and 12,000 goats eradicated (about 300 still survive there). The station was gazetted as the Francois Peron National Park in 1992, and in 1994 CALM set up one of its most ambitious projects, Project Eden (see 'Shark Bay Marsupial Heaven' on page 9). The aim of Project Eden was to reintroduce—after introduced animal control—locally extinct species to improve their conservation status and to create ecotourism opportunities.

Indigenous and other partners

Many partners are now working together to manage this priceless piece of earth and ensure that any future developments enhance and educate visitors about the reasons Shark Bay was listed as a World Heritage Property. CALM works with the Yadgalah

Aboriginal Corporation, international researchers, the Shire of Shark Bay, the nature-based tourism operators, the Shark Bay Arts Council, the Shark Bay Primary School, Shark Bay Tourism Association and the community at large to promote Shark Bay as a place of world environmental excellence.

Darren Capewell is the manager of the Yadgalah Aboriginal Corporation and a firm believer that indigenous people have an integral part to play in conservation. He believes the indigenous partnership with CALM is vital on a number of different levels including local employment, education and environmental management.

More than 120 Aboriginal sites have been registered in the World Heritage Property, some within the boundaries of Francois Peron National Park, including burial and midden sites. Darren is working on an interpretation plan for the entire area, and sees CALM as an ally in



Above Yadgalah Aboriginal Corporation manager Darren Capewell (second from left) encourages Aboriginal people, such as Daniel Cock (second from right), to join CALM as indigenous trainees. They are pictured with CALM senior ranger Carl Beck (left) and CALM's Shark Bay district manager David Rose.
Photo – Sue McKenna

Left The Zuytdorp Cliffs—a stunning entrance to the Shark Bay Marine Park.



Below left Monkey Mia tourists with bottlenose dolphins.
Photos – Jiri Lochman

addressing issues such as fishing, the environment and cultural heritage. Several Aboriginal people now work for the department as trainee recruits, trainee rangers and administrative staff, while members of the community are intensely involved with CALM in catching, tagging and monitoring dugongs.

"It's good to see Aboriginal staff at CALM and we want to encourage people to come through the ranks... I feel that times are changing and that CALM is a benchmark from which we can develop partnerships with the Department of Fisheries, the Shire of Shark Bay and others," Darren said.

"Once, our members used to take a cheap shot at CALM, but now our relationships are positive; we want to continue and learn as much as we can from the process, and the role that we can play in the World Heritage Property."

CALM's Shark Bay District Manager, David Rose, believes the department is redefining its association with people across Western Australia, with the management at Shark Bay leading the way. He applauds the involvement of Aboriginal people, and is constantly involved in other management projects.

"We're managing from a conservation perspective... We deal with international and national environmental researchers, manage the captive breeding of endangered animals at Project Eden, and create and manage tourist facilities such as the Monkey Mia Visitor Centre, campgrounds, walking tracks and the marine environment," he said.

"This has to be balanced against other interests—holiday accommodation, tour boat operators, new and old businesses and the pearling industry."

Mark Hook, the Chief Executive Officer of the Shire of Shark Bay, agrees, and works closely with CALM to find solutions to everyday issues.

Most make a special trip to see the Monkey Mia dolphins—four mothers and their female progeny—being fed at Monkey Mia as part of a carefully controlled management program, allowing tourists the chance to interact with, and be educated about, the beautiful sea creatures.

The overall message about the future of Shark Bay is clear: it is a World Heritage Property set aside for its environmental significance; its future depends on how we plan for its future, and particularly how we preserve and enhance the environment.

"All else should follow," Mr Rose said.



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Erratum

The photograph in the Autumn 2004 issue of *LANDSCOPE* (mid left, page 52) is the rare *Diuris purdiei* not *Diuris corymbosa* as stated in the caption.

The photograph in the Summer 2003-04 issue of a snail on p. 56 and p. 61 was incorrectly captioned. The photo is of the introduced predatory snail *Oxychilus* sp., which is thought to be at least partly responsible for the extinction of the Pemberton and Albany snails, and is a threat to many of our native terrestrial snails.

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