

Islands In The Sun

by Liana Christensen

The recent discovery of the rare Dibbler (*Parantechinus apicalis*) on Boullanger Island, approximately 1 km off Island Point at Jurien Bay, is a perfect example of how islands can provide a haven for our native fauna.



Sixteen species of Australian and New Zealand animals would be extinct if their habitats had not been left relatively undisturbed on offshore islands. These species, ten mammals and six birds, have vanished from the mainland, after the destruction of their former habitats. Island management is critical for conservation.

The rare Dibbler was found when a Conservation and Land Management research team were collecting information for a technical report and management plan on the islands between Lancelin and Dongara. Departmental Officer Phil Fuller spotted some unusual tracks in the sand. They were larger than those of the small Dunnarts (*Sminthopsis* sp.) and House Mice (*Mus musculus*) known to inhabit the 25 ha island. The tracks were still there shortly afterwards when he returned to the site with other team members, but as they had only been visible because of overnight dewfall they soon disappeared.

A month later the team returned with some Elliott traps (used for research purposes), hoping to capture the mystery animal.

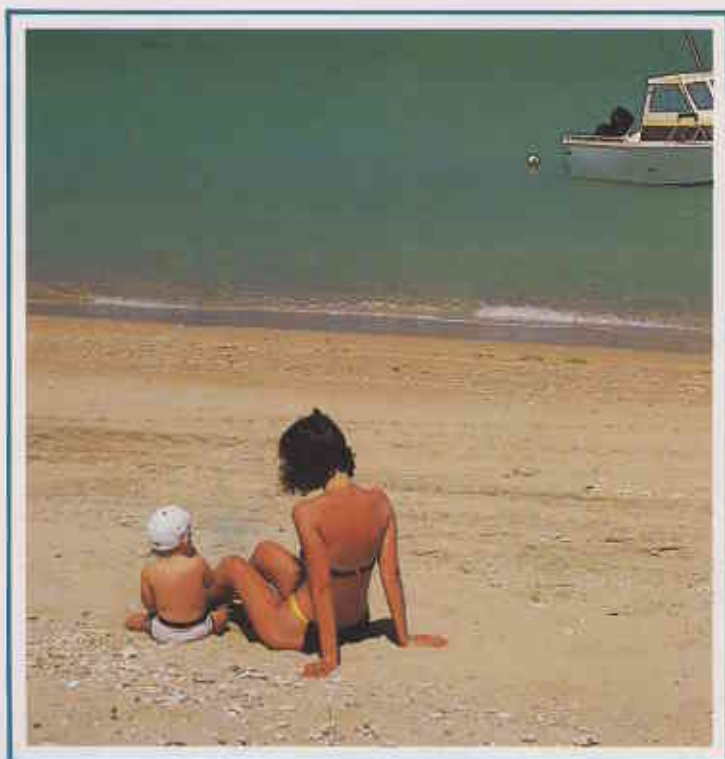
Dibblers are so rare, that it took a few minutes before Phil Fuller recognized the small marsupial in the trap. Over the next few weeks 33 Dibblers were captured and later released on Boullanger and the neighbouring Whitlock Island (5.4 ha). The discovery of the Dibbler on these islands will give conservationists a second chance to ensure its long-term survival.

Although some animals have a temporary reprieve from the sentence of extinction, very careful management is necessary to press home this advantage. A recent meeting, convened by the Council of Nature Conservation Ministers, brought together 17 experts to discuss island management. Techniques discussed at the workshop included the preparation of management plans with full public participation; the eradication of feral animals on islands; encouraging endangered species to breed in the protected and 'manageable' habitats afforded by islands; and the preparation of educational material to increase public awareness of islands' role in conservation.



Keith Morris

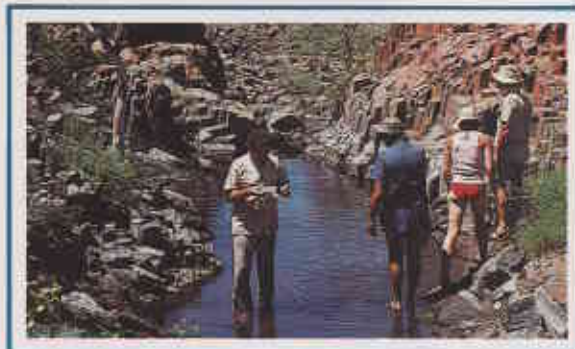
A Crested Tern (*Sterna bergii*) breeding colony.



Left: Islands are unsurpassed for idyllic holidays.

Right: One of the four species of turtles resident on the Dampier Archipelago.

Below: An opportunity to learn about natural history: a rockhole on Dolphin Island.



Keith Morris

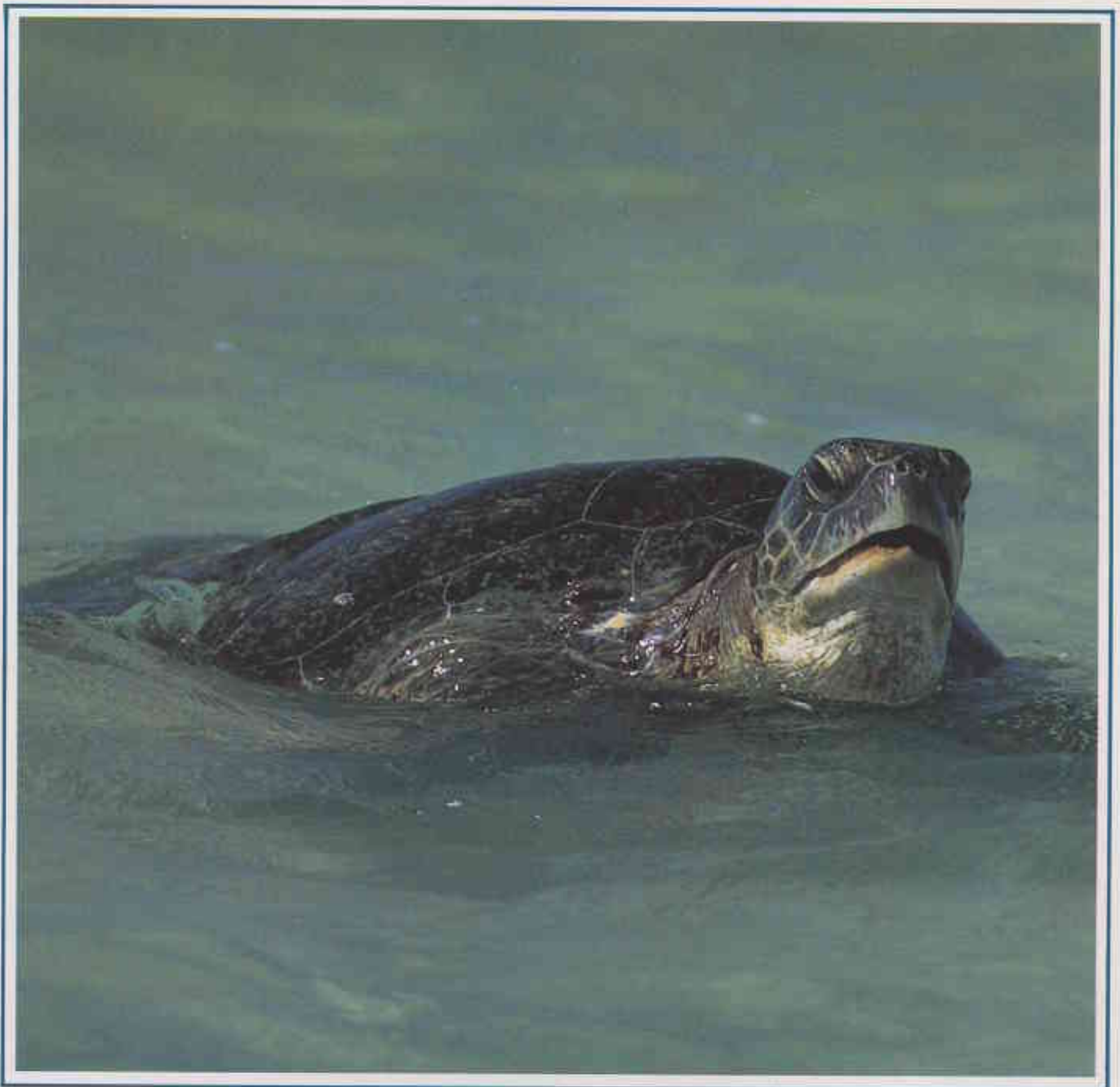
Establishing breeding colonies of endangered species is an ironic reversal of last century's practice of introducing European animals to colonise islands. Rabbits were said to have been introduced to Carnac Island in the 1820s by early American or French whalers as a source of food. Their presence on the island was noted by Charles Frazer, a botanist who visited Carnac Island in 1827. The rabbits were viewed as a valuable asset at that time, and were not to be shot or removed from the island without the permission of the Fremantle Harbour Master.

Altogether, there are seven species of feral animals known to live on islands off the coast of W.A.. Most of them, such as the Black Rat and the Fox, are less appealing than the Rabbit, although they may be equally damaging. Because islands are self-contained, however, it is possible

to completely eradicate a feral species, and to prevent its re-introduction. The Department of Conservation and Land Management and its predecessor successfully undertook several programs to eradicate or control populations of feral animals on offshore islands. Aerial photography taken three years after rabbit eradication on Carnac Island, for instance, showed a marked recovery in the island's vegetation — some changes to plant species composition, however, may be irreversible.

If it is good to re-establish some degree of environmental integrity to an island, it is obviously better to start managing islands before they have lost too many of their pristine qualities.

The nature reserves of the Dampier Archipelago present us with just such an opportunity.





The Dampier Archipelago consists of about forty islands within a 45 km radius of the port of Dampier. Ranging in size from rocks and islets of less than 1 ha to large islands of over 3 000 ha, the archipelago was formed approximately 8 000 years ago when rising sea levels flooded coastal valleys, leaving the hills and ridges exposed.

As yet relatively undisturbed, the archipelago is a paradise for conservationists and recreators alike. It possesses nesting beaches for four species of marine turtle, nesting sites for 14 species of sea bird, a feral-animal-free habitat for native

fauna and many undisturbed vegetation systems. The islands are also a popular retreat for the people of Dampier, Karratha, Wickham and Roebourne. Recreational use is likely to increase as the iron-ore and petroleum industries develop in the Pilbara.


It is possible for conservation and recreation to coexist harmoniously. For example, not all islands are used to the same extent for turtle nesting. Beaches where turtles do nest may be designated high protection conservation zones, especially in the breeding season. Many other beaches,



however, will be set aside for day use; some islands will have overnight camping for up to five nights.

Islands can also provide a lot of opportunities for enjoying and learning about both the natural and historical environment. The Department of Conservation and Land Management may be able to provide supervised tours for small groups to sensitive sites such as turtle beaches and Wedge-tailed Shearwater breeding sites. There are also many historic sites, Aboriginal and European, on the Dampier islands.

At the time of European settlement an estimated 100-120 Aboriginal people of the Yapurarra tribe occupied the Burrup peninsula and the islands of the Dampier Archipelago. Rock etchings, middens, fish traps and hunting hides mark where they have been. Introduced diseases, exploitation and violent confrontation with the settlers reduced their numbers until they are now believed to be extinct.

If we can learn anything from history we should take care not to let our islands' remaining plants and animals suffer the same fate. 

Landscape

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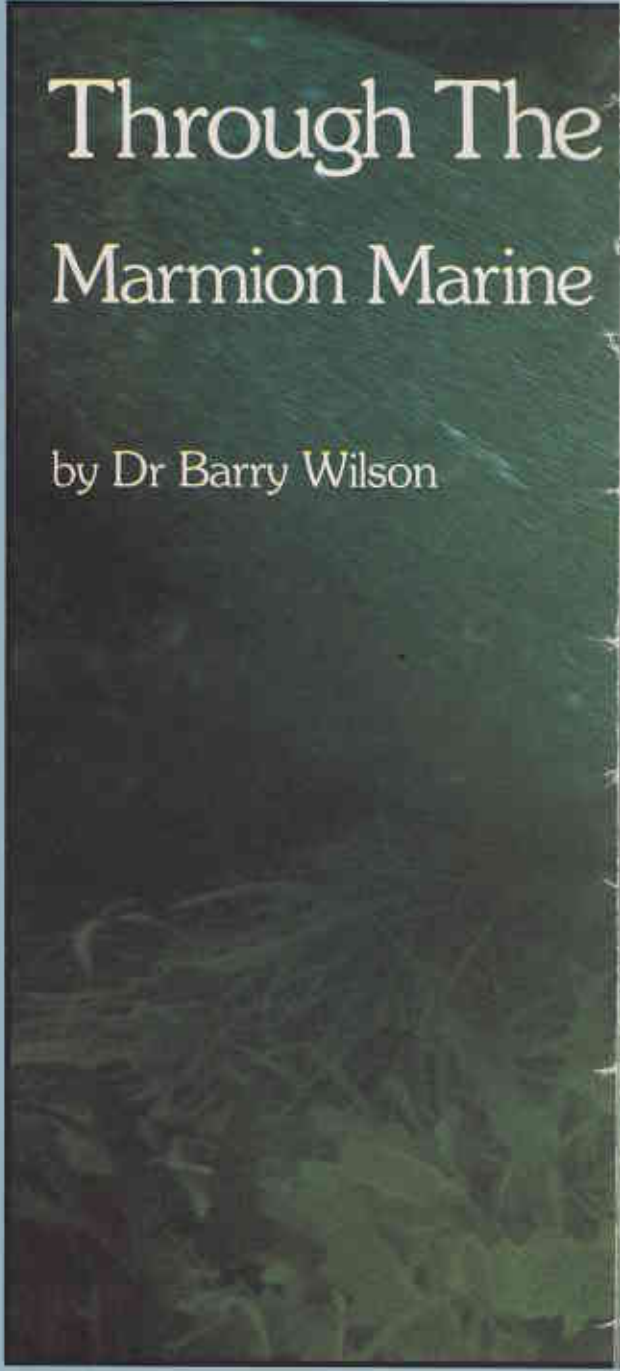
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Cover

The Caspian Tern (*Sterna caspia*) is a good advertisement for the value of islands (see article p. 25). It breeds on islands all along W.A.s coast from Recherche Archipelago in the south to Lacedpede Island near Broome.
Cover photo by Cliff Winfield.

Through The Marmion Marine

by Dr Barry Wilson



To the land-bound observer standing on the dunes of the Whitford Nodes, on Perth's north coastline, the surface of the sea beyond may be still or turbulent, but it is always two-dimensional. It is hard to realise that below the surface, on the other side of the mirror, is a three-dimensional counter-world, with varied relief and diverse habitats. This world is populated by an alien array of the most impossibly grotesque and stunningly beautiful creatures, in such abundance and variety as to leave a snorkel-diver breathless in more ways than one.