



Captivating *Kalbarri*

by Samille Mitchell

Stunning scenery, ancient creatures, Aboriginal and European history and wildflower wonders combine to make Kalbarri National Park among the most popular parks in the State.



Kalbarri is nestled at the mouth of the Murchison River, which journeys more than 700 kilometres from the desert heart of the State to drain into the dazzling Indian Ocean. The township is perched at this meeting place of river and ocean waters, providing sweeping views of tranquil river reflections and the seemingly endless ocean beyond. Some 190,000 hectares of spectacular national park embrace the township, offering an enchanting world of gorges, cliffs, sandplains and wildlife.

To the south of Kalbarri, the national park boasts rugged coastal cliffs, which plunge 100 metres to the eternal pounding of waves at their base. Inland, the national park takes in the environs of the Murchison River, which has sculpted some 80 kilometres of majestic gorges into the ancient landscape.

Kalbarri National Park is home to a riot of wildflowers and many species of wildlife—from endangered native animals such as the woylie (*Bettongia penicillata*) and chuditch (*Dasyurus geoffroyi*) being reintroduced to the national park to the ubiquitous western



grey kangaroo (*Macropus fuliginosus*) and bigurda or euro.

An ancient landscape

The gorges of Kalbarri National Park have been sculpted by the hands of time. This process began more than 420 million years ago when Australia was part of the ancient landmass Gondwana. This was an era when the oceans were teeming with primitive fish, seaweed and fungi. It was an age when corals were starting to develop and plants were just beginning to gain a tentative grip on life outside the oceans. This ancient land was virtually uninhabited by plant or animal life—a wasteland characterised by violent weather and dramatic upheavals in the earth.

The shifting sands of this ancient environment have captured secrets to life here some 420 million years ago. Wind-borne sands fell across the land, in the process covering and preserving tracks left in the damp earth. Fast forward through the millennia and the erosion of the rocks has revealed these ancient call cards.

Rocks riddled with markings bearing a 'can of worms' appearance are the signature of ancient worms, known as skolithos, which once burrowed in the sand here, while different markings in the rock reveal the footprints of a creature which looked like a giant scorpion.

Still different tracks imprisoned in the rocks in Kalbarri National Park show the path of a giant cockroach-like arthropod with 11 pairs of legs, known as an euthycarcinoid. The discovery of these tracks in Kalbarri was particularly exciting for scientists. Previously euthycarcinoids were known from France and the United States and were dated at about 300 million years old. But the tracks in Kalbarri are aged at 420 million years—thereby increasing the known life range of these creatures by 120 million years.

Scientists have also unearthed fascinating fossil finds in the sandstone north of Kalbarri. They have discovered the incomplete tail of an unidentified creature thought to be a theropod dinosaur—the same group of dinosaurs that includes the famous *Tyrannosaurus rex*. The theropod found at Kalbarri was thought to have roamed here during the early Cretaceous period about 144 to 127 million years ago. It is the only example of dinosaur bone from this era found in WA.

In the same area scientists also discovered partial remains of an ancient creature of the genus *Platypterygius*—extinct dolphin-like animals that grew up to seven metres long. Kalbarri

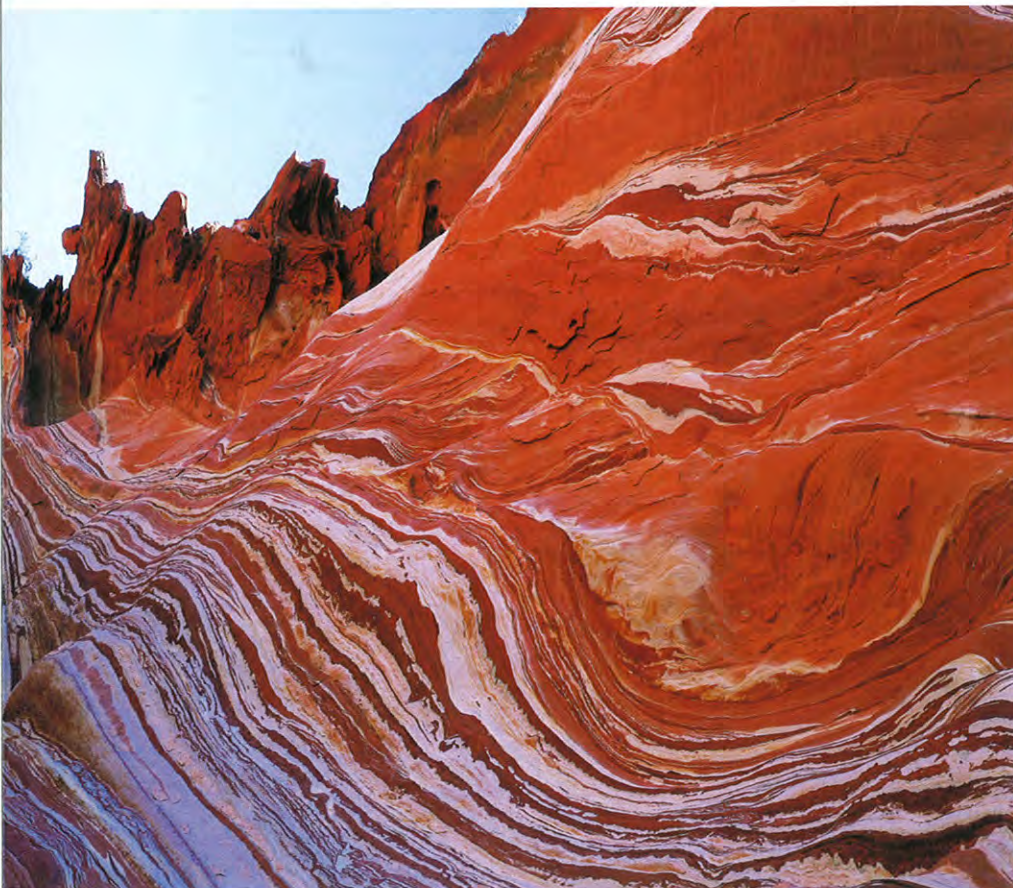
Previous page

Main Murchison River gorge.

Photo - Marie Lochman

Left Dramatic bands of red and white rock characterise Kalbarri National Park's river and ocean gorges.

Photo - David Bettini





Above Sunset at Eagle Gorge.
Photo – Jiri Lochman

Right Fossilised tracks thought to be that of an ancient giant sea scorpion.
Photo – Jiri Lochman

sandstone has also revealed the remains of an ancient marine animal called *Leptocleidus clemai*—a type of pliosaurid reptile that lived in the region about 146 to 65 million years ago. Two specimens of this fossil were unearthed in the area and are thought to have come from creatures sized 2.5 to three metres long. It's believed these strange-looking beasts inhabited close-inshore marine environments in the same way sea lions do today.

First inhabitants

Long before European settlers arrived in the Kalbarri area, Aboriginal people known as the Nanda inhabited the region's diverse and spectacular environment. The Nanda lived in an area stretching from modern-day Kalbarri and Northampton north to Shark Bay, where the Malgana also lived.

While no-one is exactly sure how long these people have lived here, there is little doubt they have done so for thousands of years. Dozens



of sites, particularly on modern-day Murchison House Station at Kalbarri, bear testimony to these early days. Stone flints, grinding stones, red ochre and charcoal art, burial sites and middens can still be found.

Aboriginal people believe mythological Dreamtime beings sculpted the land to its present design. A serpent known as the Beemarra was and remains particularly revered for its role in creating the landscape. It features in red ochre artworks near Kalbarri. Even today, the Beemarra is respected by Aboriginal people and Nanda will throw a handful of sand into the water on approach to blind the snake and stop it from poisoning the water.

European arrival

The first European people to set foot in Kalbarri may have been the first white people ever to have lived in Australia. Long before Captain Cook sailed the eastern coast, two survivors of the *Batavia* shipwreck of 1629 were marooned on the WA coast as punishment for their role in a gruesome mutiny on the nearby Abrolhos Islands. Many believe the duo were left to fend for themselves at the place now known as Wittecarra Creek in Kalbarri. A plaque on a stone at the site commemorates this important yet little-known part of Western Australian history.

Much later, during the expansion of the Swan River Colony, surveyors and explorers set out into the unexplored north and interior to report on the land's mineral and pastoral potential. Among these early explorers was Captain George Grey, who journeyed north with an American whaling ship from Fremantle on 17 February 1839 to explore the coast around Carnarvon.

A series of misfortunes meant Grey and his men were forced to abandon their expedition and return south. Crammed into two whaleboats with limited supplies, they began the



Above Dawn at Nature's Window which overlooks The Loop.

Photo – Brett Dennis/Lochman Transparencies



Left Kalbarri catspaw.

Photo – Marie Lochman

arduous journey. Travelling south along the soaring and impenetrable face of the notorious Zuytdorp Cliffs, they were forced to row for 56 hours straight. Finally, utterly exhausted, they attempted a landing at what is now known as Kalbarri.

After both boats were dashed against rocks in the surf, the men were left stranded, without boats and without supplies. And in such a manner, this rag-tag group of men became the first

officially recorded Europeans to visit what is today called Kalbarri.

Murchison House Station was established near modern-day Kalbarri townsite in 1848, making it one of the oldest pastoral stations in WA. It was started by Charles Von Bibra to supply meat to convict lead miners. Von Bibra also bred Arab stallions for the British army in India from Murchison House. Later, the station was taken on by the most unlikely of

would-be pastoralists—the eccentric and wealthy Prince Mukramm Jah, the eighth Nizam of Hyderabad. The Nizam collected military and large earth-moving equipment and varied collections of these artefacts are still scattered around the station today.

Despite the activity occurring all around it, very little development occurred in Kalbarri itself, or the 'Mouth of the Murchison' as it was then known. However, in the 1900s, fishermen started to visit the mouth of the Murchison on fishing holidays.

It wasn't until 1951 that the Kalbarri townsite was finally gazetted, incorporating land resumed from the Murchison House Station and a reserve. The name Kalbarri is thought to be derived from an Aboriginal word for edible seed. A school opened in 1959 with 12 students from grades one



Above Mitchell's hopping mouse.
Photo – Babs and Bert Wells/DEC

Below Bigurda or euro.
Photo – Jiri Lochman

to nine and the town grew steadily. In 1963, Kalbarri National Park was gazetted, largely thanks to the efforts of people such as the town's first school headmaster Ross Graham.

Wildflower treasure trove

Today, Kalbarri is revered for its stunning seasonal wildflower displays. Depending on winter rains, the Kalbarri landscape can explode into masses of vibrant colour from about July to October each year. The flowers are most spectacular on the Kalbarri sandplain and near the river gorges in Kalbarri National Park. Kalbarri's spectacular wildflower showing is created thanks to the mix of vegetation zones in the area. Kalbarri is positioned at the northern limit of the South-western Botanical Province and contains portions of the Zuytdorp, Kalbarri, Murchison Gorge and Eurardy vegetation systems. Of the 1,071 species of flora recorded in the area, 223 (21 per cent) are at the northern limit of their natural range. Of all the flora species in Kalbarri, more than 80 are classed as declared rare or priority flora in need of protection.

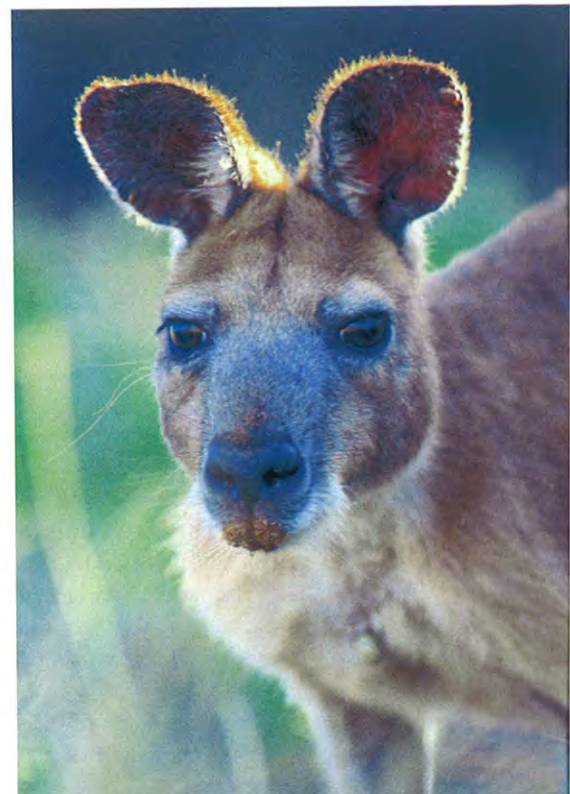
Twenty-one of Kalbarri's plant species are found only here, making the health of the Kalbarri environment vital to their survival. One of the best known of the endemic species is the Kalbarri catspaw (*Anigozanthos kalbarriensis*), a small yellow or red plant that is usually seen on recently burnt country in August and September.

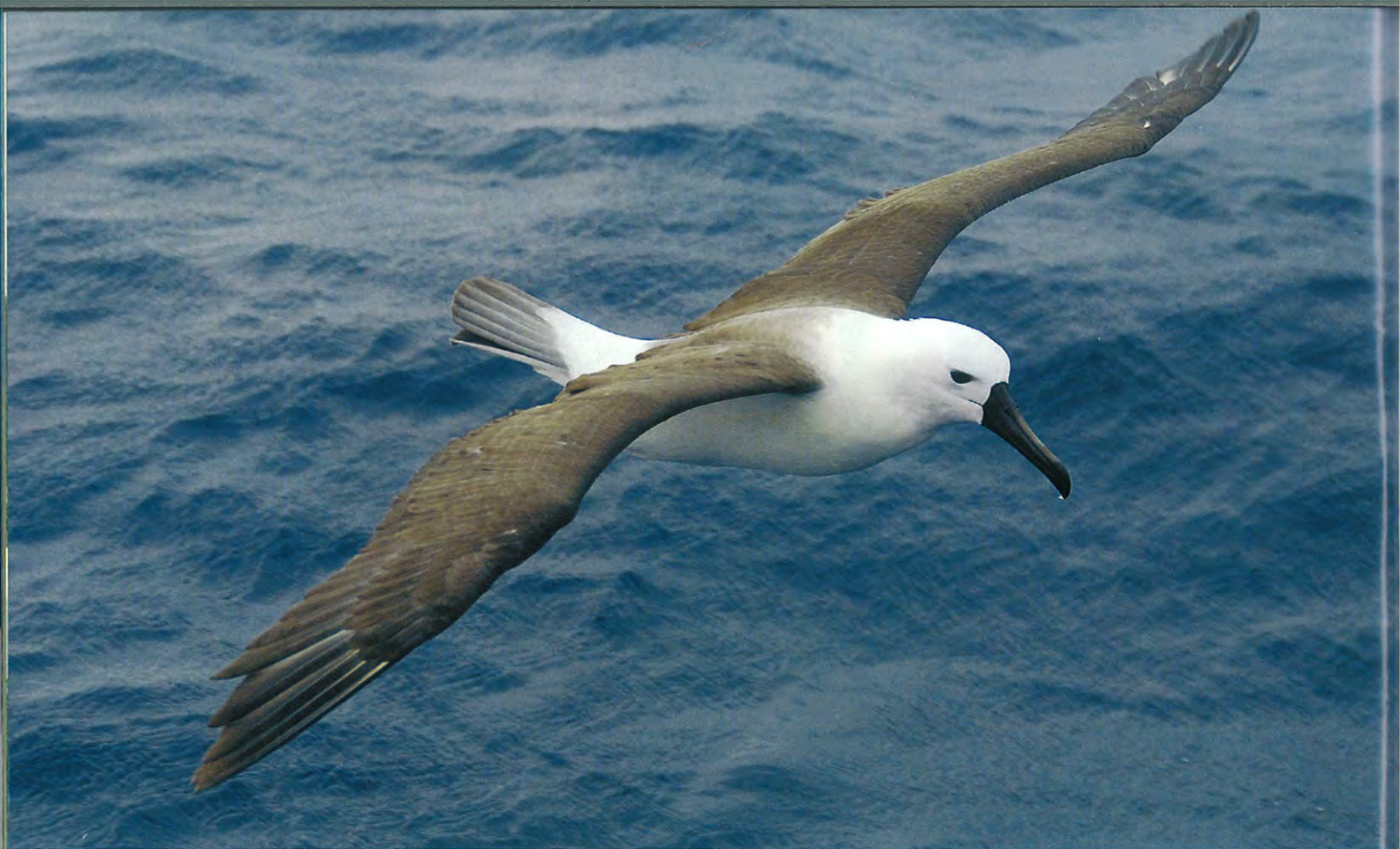


Animal life

The diverse habitats in Kalbarri National Park are home to a suite of mammal species. They range from tiny dunnart species such as the hairy footed, little long tailed and fat tailed dunnarts (*Sminthopsis* sp.) to larger species such as the western grey kangaroo. Other, less commonly seen species such as the ash grey mouse (*Pseudomys albocinereus*), Mitchell's hopping mouse (*Notomys mitchellii*), spinifex hopping mouse (*Notomys alexis*) and honey possum (*Tarsipes rostratus*) also remain relatively abundant.

However, other mammals such as the woylie, chuditch, black-footed rock wallaby (*Petrogale lateralis*), the tamar wallaby (*Macropus eugenii*) and possibly others such as the bilby (*Macrotis lagotis*) and boodie (*Bettongia lesueur*) have long gone. The woylie and chuditch are thought to have disappeared by the 1960s, largely victim to fox predation.





Above Albatross in flight.
Photo – Samille Mitchell/DEC



Left A malleefowl.
Photo – Ken Stepnell/DEC

No concrete evidence of bilby and bettong inhabitation has been discovered, yet old timers have spoken of these animals living here until the mid 1900s. The last tammar wallaby in Kalbarri was recorded in the 1990s when it was hit by a car near Meanara Hill, near the eastern town entry. The last confirmed black-footed rock wallaby sighting was also in the 1990s, at Hawks Head gorge. Foxes are largely to blame for the demise of the tammar wallaby, while fox predation and competition from goats for food and shelter are thought to have caused the local disappearance of the rock wallaby.

The Department of Environment and Conservation's (DEC's) *Western Shield* program is aimed at controlling feral animal populations and reintroducing native mammals back to their former range. In addition to targeting foxes, DEC conducts goat-control programs. Such work has paved the way for several former native animals to be reintroduced to the park. The chuditch and woylie have been reintroduced to the park, which is part of their former range. After release, the species flourished for several years, although, more recently, woylie populations in Kalbarri

(and those elsewhere in the State) have declined. The cause of this is unknown, but is most likely related to predation by introduced predators (see 'Down but not out: solving the mystery of the woylie population crash', *LANDSCOPE*, Winter 2008). Trapping is carried out twice-yearly and has revealed new individuals with pouch young, indicating the woylie and chuditch continue to cling to life in Kalbarri, as long as the fox population remains under control (see 'High hopes for Kalbarri wildlife', *LANDSCOPE*, Spring 2006).

Several other mammal species may also be considered for reintroduction to the park and include the quenda (*Isoodon obesulus*), western barred bandicoot (*Perameles bougainville*), boodie, rufous hare-wallaby or mala (*Lagorchestes hirsutus*) and banded hare-wallaby (*Lagostrophus fasciatus*). The black-footed rock wallaby is also earmarked for reintroduction, once goat numbers are proven to be under control.

While mammal species have declined over the years, Kalbarri's bird life remains abundant. With both

Right Moon wrasse feeding on exposed oyster.

Photo - Clay Bryce/Lochman
Transparencies

Below Peaceful scenes in a remote section of the Kalbarri river gorge.

Photo - Samille Mitchell/DEC

ocean and river environments, there is a large diversity of birds, with more than 160 species recorded in recent years. These include two threatened species, the malleefowl and Carnaby's black cockatoo, and one other specially protected species, the peregrine falcon. The malleefowl and two other large ground nesting species, the Australian bustard and bush stone-curlew, appear to have increased in number since fox control was implemented. Several new and active malleefowl mounds have been recorded in and around the park with an apparent increase in activity levels noted by park staff.

Due to the health of this malleefowl population, eggs from Kalbarri mallee fowl mounds have been transferred to the Peron Captive Breeding Centre in Shark Bay to establish a population of the bird in Francois Peron National Park.

Riot of underwater life

Kalbarri waters are home to a riot of fish, invertebrate and coral life. The warm, southerly flowing waters of the Leeuwin Current nurture a mix of both temperate and tropical species.

While Kalbarri waters have never been subject to significant study, the popular snorkelling spot 'Blue Holes' has been monitored and provides a good insight into a typical Kalbarri marine environment. Monitoring here has revealed 200 species of flora and fauna—a wonder world of algae, seagrasses, sponges, corals, crustaceans, molluscs and fish.

You just need to walk among the rocks to appreciate the sea life here. Spiny urchins inhabit crevices in rocky pools, hermit crabs shuffle across the rocks and sea stars adorn the ocean floor. Don a snorkel and mask to see even more of this fairytale-like underwater world. You may delight in the sight of creatures such as the brilliantly coloured wrasse, butterfly fish, stripey and gobies darting about



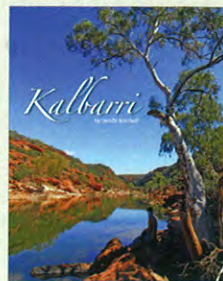
in the aquarium-like pools. Banded shrimp live under ledges, whiting and mullet inhabit the shallows and octopuses lurk in the dark caverns—or you may spot one marooned in a rock pool as the tide retreats.

Of the 71 fish species recorded at Blue Holes, many are tropical. You'll also notice some bright and colourful corals when snorkelling or diving in Kalbarri. Eleven species of coral have been recorded at Blue Holes, while more are likely to exist offshore. These corals are typical of coastal areas in south-west Australia.

Kalbarri waters are also home to several species of marine mammal. A permanent population of about 100 bottlenose dolphins (*Tursiops* sp.) lives here. Each year Kalbarri waters come to life with the mass migration of humpback (*Megaptera novaeangliae*) and southern right (*Eubalaena australis*) whales. From about July to November, these ocean giants pass Kalbarri on their annual migration from Antarctic waters. Kalbarri is becoming well known as a whale watching location because of the close proximity the animals travel to the shore.



Samille Mitchell is a Department of Environment and Conservation (DEC) features writer and *LANDSCOPE* editor. This article is based on the new DEC book *Kalbarri*. The book is available for \$29.95 from bookshops and tourist outlets, by phoning WA Naturally Publications on (08) 9334 0333 or by ordering online at www.dec.wa.gov.au/shop.



- 46 Captivating Kalbarri
Take a journey to this remarkable place, which features river and ocean views as well as stunning gorges.
- 54 The ant, the butterfly, the leafhopper and the bulldozer
An amazing story of three species cohabiting in the Wheatbelt.
- 59 Conserving roadside vegetation
Roadside plant communities play an important role in conserving native flora and providing wildlife corridors.

Regulars

- 3 Contributors and Editor's letter
- 15 Bookmarks
The Nature of Ice
Kalbarri
Find that Flower
- 30 Feature park
Porongurup National Park
- 39 Endangered
Meelup granite community
- 62 Urban Antics
Real muppets

Publishing credits

Executive editor Madeleine Clews.

Editors Joanna Moore, Samille Mitchell and Rhianna King.

Scientific/technical advice

Kevin Thiele, Paul Jones, Keith Morris.

Design and production Gooitzen van der Meer, Peter Nicholas and Natalie Jolakoski.

Illustration Gooitzen van der Meer.

Cartography Promaco Geodraft.

Marketing Estelle de San Miguel.

Phone (08) 9334 0296 Fax (08) 9334 0432.

Subscription enquiries

Phone (08) 9334 0481 or (08) 9334 0437.

Prepress and printing GEON, Western Australia.

© ISSN 0815-4465

All material copyright. No part of the contents of the publication may be reproduced without the consent of the publishers.

Please do not send unsolicited material, but feel free to contact the editors.

Published by the Department of Environment and Conservation (DEC), 17 Dick Perry Avenue, Kensington, Western Australia.

Visit DEC online at www.dec.wa.gov.au to search the new *LANDSCOPE* catalogue.



Department of Environment and Conservation

Our environment, our future 