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Department of Conservation and Land Management Online

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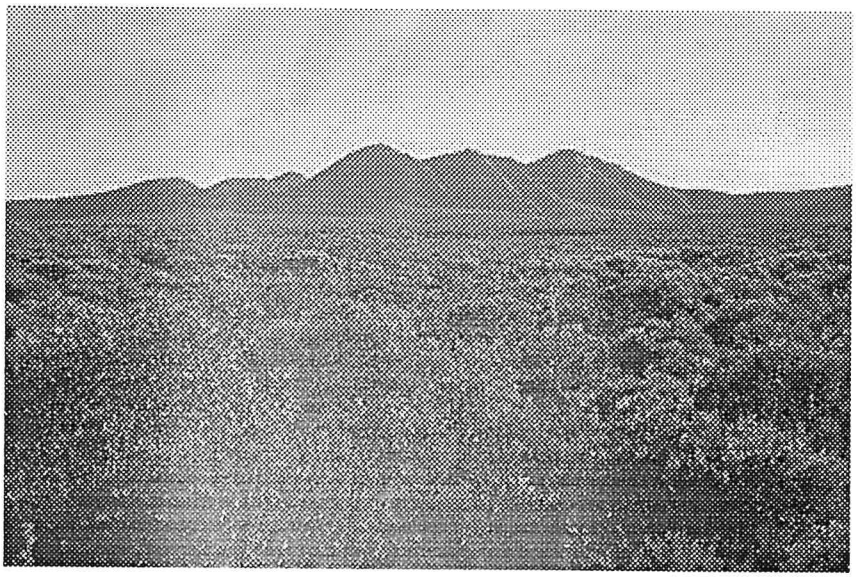
Park of the Month - March 1999

Fitzgerald River National Park



"Worthless" was the opinion of early explorers of the area now in the Fitzgerald River National Park. Today, it is renowned for its diverse and spectacular scenery and flora, which in turn supports a number of threatened animals.

Surrounding the inlets of the Gairdner, Fitzgerald and Hamersley Rivers, between Bremer Bay and Hopetoun on the South Coast of Western Australia, lies one of the most diverse botanical regions in the world. More than 1800 beautiful and bizarre species of flowering plants, as well as a myriad of lichens, mosses and fungi, have been recorded in Fitzgerald River National Park. This represents nearly 20 per cent of the total number of plant species in Western Australia, in an area that covers only a tiny fraction of the State.

Landforms

The plant associations found in the park are closely related to the soils and landforms, with many of the more fascinating plants restricted to the landforms unique to the area.

The coastal hills, collectively known as the Barrens, are the most distinctive landforms in the park and many plants found nowhere else in the world are restricted to them. The Barrens are composed of quartzites; the tilted and folded rock beds, like those seen at East Mount Barren, were once layers of sand deposited on the sea floor. They were subsequently compressed, heated

and uplifted by movements of the Earth's crust.

The park is also known for its spongelite cliffs, which are exposed along the Hamersley and Fitzgerald River valleys. The soft rock was formed more than 36 million years ago, when the sea level was higher than today and flooded the coast up to 65 kilometres inland, leaving the Barren Ranges as islands. Sponges proliferated in the warm shallow seas, and their silica skeletons in the silty sediments gave rise to the name of the rock type.

During subsequent periods of warmer and wetter climates, following the fall in sea level, the cliffs were carved as run-off easily eroded the soft sediments.

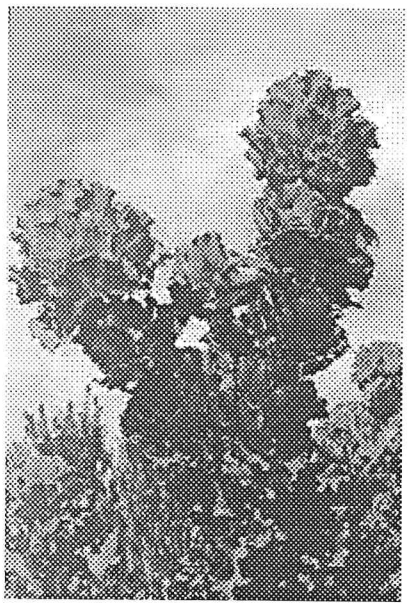
Elsewhere, the marine plain soils have been chemically and physically eroded by wind and water to form a complex mosaic of nutrient-poor sands and gravels that support the diverse and low-growing heathlands.

Granite exposures in the north of the park mark the southern edge of the ancient Yilgarn Block - a core of continental crust that underlies much of Western Australia.

Endemic Plants

Sixty-two plant species are found only in Fitzgerald River National Park, with a further 48 species more or less confined to the park.

Royal hakea (*Hakea victoria*) is one of the most famous, and certainly the most striking, known from the park. Growing only in this area, it was first described by Colonial botanist James Drummond in 1847. He described it in glowing terms:



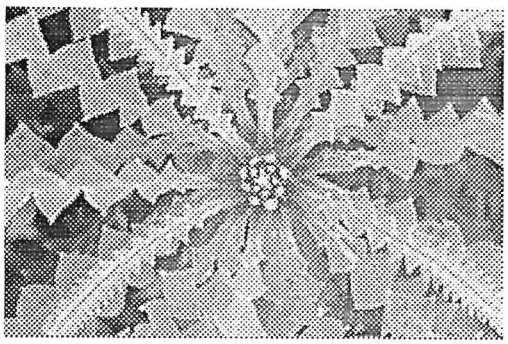
> 'by far the most conspicuous part of the foliage of this superb plant is its bracts [parts of the plant that resemble leaves]...The variation of these bracts is so extraordinary that I almost fear to attempt description... So this most splendid vegetable production which I have ever seen in a wild or cultivated state, I have given the name of our gracious Queen, *Hakea victoria*. It will soon be in cultivation in every country of note in Europe and in many other countries...'

So ecstatic was Drummond that he carried a 14-foot specimen 80 kilometres from West Mount Barren to Cape Riche. But the brilliant yellows, oranges and reds soon faded. In the relatively rich soils of gardens this plant remains green, but on the poor soils typical of its natural habitat, the colouring is part of a no-waste program. The plant gets some essential nutrients for new growth by removing them from older leaves, and this causes the colour changes.

The brightest coloured plants are in the western part of the park. Other distinctive plants confined to the park and its immediate surrounds include the silver-leafed Barrens regelia (*Regelia velutina*), and Barrens clawflower (*Calothamnus validus*), which has flowers resembling claws. Dense clawflower (*Calothamnus pinifolius*), a miniature pine look-alike, is restricted to the quartzite soils, as is the graceful weeping gum (*Eucalyptus sepulcralis*). It was given the name sepulcralis, which means 'of the tomb', as this forlorn looking plant, seen along Hamersley Drive, was thought to be ideal for cemeteries.

Other Plants

The sheer diversity of plants is made all the more striking by the array of impressive flowers, unusual forms and bizarre leaf shapes, sizes and colours; attributes particularly prevalent in the most numerous families - the Proteaceae (banksias, hakeas and so on), the Myrtaceae (eucalypts, bottlebrushes and their relatives) and the Fabeaceae (pea-flowered plants).



Showy banksia (*Banksia speciosa*), with its pale yellow flowers and saw-toothed leaves, and scarlet banksia (*Banksia coccinea*) carry their flowers above the foliage. Woolly banksia (*Banksia baueri*) has football-sized flowers, while those of creeping banksia (*Banksia repens*) emerge from the ground.

Bell-fruited mallee (*Eucalyptus preissiana*) has large golden flowers, while the more common blue mallee or tallerack (*Eucalyptus tetragona*) is notable for both its multi-stemmed habit and its large bluish-green leaves, which have a waxy white bloom.

The featherflowers (*Verticordia* species) provide brilliant splashes of white, pink, yellow and mauve.

Many of the pea-flowered plants like disturbed soils and are often more conspicuous following fire or along road verges, where the aptly-named ouch bush (*Daviesia pachyphylla*), with its spiny thick leaves and arching branches is obvious.

When flowering, the spindly Quaalup bell (*Pimelia physodes*), in the Family Thymelacaceae, is also prominent. It has large pink and yellow petal-like bracts that enclose the real flowers.

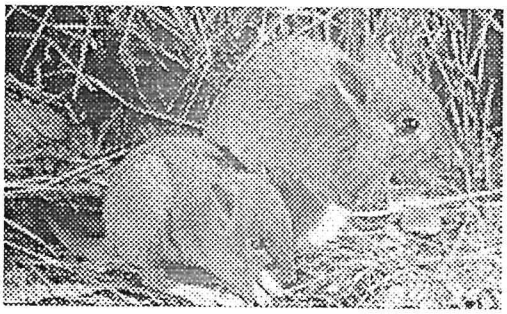
Whilst the peak flowering time is August to November, a minor peak occurs again in autumn, and intermittent flowers throughout the year provide a constant floral display and food supply for honeyeaters and honey possums.

Animals

The tremendous variety of vegetation provides a haven for native animals and birds. As home to at least 19 native mammals, the park is one of the State's most important in terms of faunal conservation.

Several species have only recently been rediscovered in the park. The dibbler, a small marsupial with distinctive white eye rings, was thought to be extinct until 1967, when it was rediscovered near Albany. Captured in the park in the 1980s, this secretive animal is largely carnivorous, though it also feeds on nectar and pollen, and has never been found in any large numbers.

The heath rat was thought to be extinct in Western Australia until the 1980s, when its presence was first indicated by bone remains in a disused owl nest and a tooth in a fresh owl scat, and finally live in traps in Fitzgerald River National Park.



Like the dibbler and the heath rat, the woylie and tammar wallaby were once much more widespread, but declined rapidly following European settlement. Clearing of vegetation, predation by introduced foxes and cats, and altered fire regimes are probably the main contributing factors to the decline in range and number of these small mammals in Western Australia.

Likewise, the ground parrot, one of three endangered birds present in the park, was once found from Augusta to Cape Arid in Western Australia, but is now restricted to Fitzgerald River National Park and Cape Arid National Park. The ground parrot nests on the ground and spends most of its time walking around quietly, foraging for seeds and fruits, spending only two brief periods each day (about half an hour just before sunrise and for a similar period just before sunset) flying and calling to other birds.

Most of the threatened animals are concentrated in the north of the park in heaths and mallees, remnants of typical Wheatbelt vegetation that has now been largely cleared elsewhere. Most species were also recorded in patches of vegetation that had been unburnt for at least 15 years and sometimes 35 years.

Maintaining a mosaic of vegetation types and ages is possible in a park the size of Fitzgerald River National Park, and essential to maintaining its biological diversity. In today's terms, the Fitzgerald River National Park is far from worthless. It is one of Australia's most important national parks and its international importance is reflected in its designation as a World Biosphere Reserve.

As well as being the repository of numerous rare plants and animals, it is also one of the last great wilderness areas of the south.

Fitzgerald River was named by John Septimus Roe in 1848 after Governor James Fitzgerald.

THINGS YOU NEED TO KNOW

Where is it?
About 180 km north-east of Albany and a little farther west of Esperance.

Travelling time:
2 hours 30 minutes (approx) from Albany or 3 hours (approx) from Esperance.

What to do:
Sightseeing, walking, photography, camping, canoeing, fishing. During the winter months you can see spectacular views of southern right whales from the cliffs at Point Ann. The spongelite cliffs can be seen along the Fitzgerald and Hamersley Rivers.

Facilities:
Campground, Barbecues, Picnic Areas, Toilets
NOTE: No Drinking Water Available.

Best seasons:
Spring and Autumn

Nearest CALM offices:
CALM Regional Office Albany or CALM District Office Esperance.
A ranger is based in the park all year round. Telephone (08) 9835 5043.

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