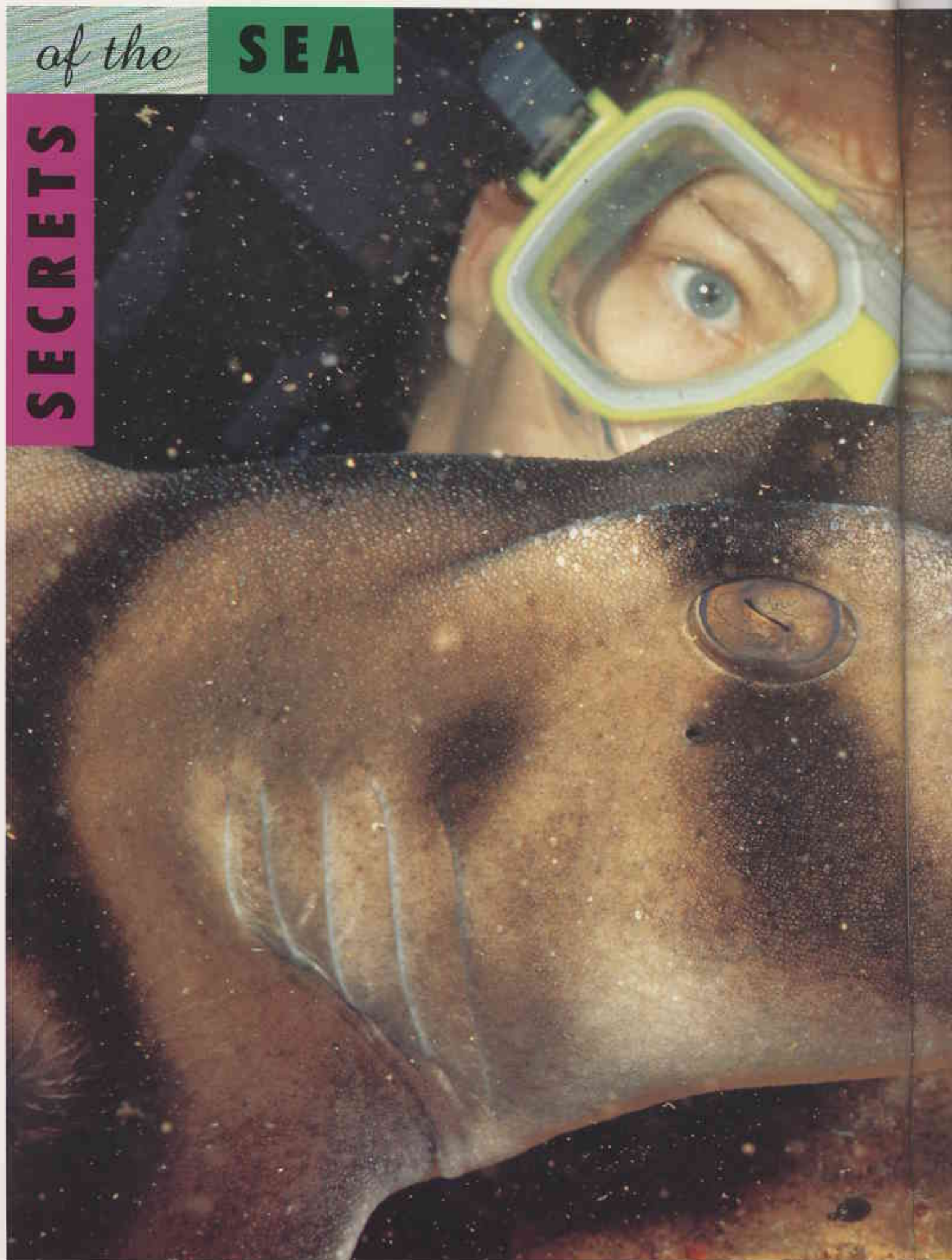


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SEA

SECRETS





From the incredible whale sharks of Ningaloo Marine Park to the second-largest diveable wreck in the world, Western Australia has a diversity of experiences to offer even the most discerning diver.

However, these may seem somewhat daunting to the beginner. Snorkellers and novice divers may be less sure about where to go to explore the marine environment. A new book now makes it easy for them.



BY CAROLYN THOMSON

W

estern Australia is rimmed by 12 500 kilometres of coastline.

Beyond the shore, the waters seem to stretch from horizon to horizon in an endlessly flat surface. Only occasionally, where the reef line intrudes above the water, is there some hint of the fascinating seascape that lies below. Once you take the plunge, waving fronds of kelp, colourful soft corals, anemones, reef fish in bizarre shapes and enchanting colours, and the yawning entrances of caverns and swimthroughs invite you to discover their secrets.

More and more people are wanting to discover Western Australia's underwater wonders. However, it is estimated that three or four out of every 10 people that complete a SCUBA diving course may never go diving again, probably because they don't have a boat or are unsure where to find the best shore dives. As a result, a new book has been released by the Department of Conservation and Land Management (CALM) entitled *Dive and Snorkel Sites in Western Australia*. The book is designed primarily for snorkellers and novice divers and has a strong emphasis on shore dives and dive sites within marine parks. The dives are all relatively easy (none is deeper than 18 metres) and accessible, as well as being fun and interesting. However, there are also many boat dives that experienced divers would find challenging and enjoyable, and some moderately difficult

shore dives. Simple mud maps and descriptions are provided for each site.

The book strongly emphasises low impact diving. The message is to look at marine life without disturbing it. Conservation-minded divers and snorkellers will always leave marine plants and animals where they belong for others to enjoy.

DIVING NEAR PERTH

The diving and snorkelling sites near Perth are populated with a mixture of temperate and tropical fish species. A band of warm water, known as the Leeuwin Current, carries the larvae of many tropical fish species from coral reefs further north and allows them to

thrive by providing the warmth they require in otherwise cooler waters.

The eroded limestone reefs around Marmion Marine Park are a diver's paradise, forming ledges, caves and swimthroughs. They are inhabited by a wonderful array of fish species and colourful invertebrates. One of its jewels is undoubtedly Boyinaboat Reef, which lies at the southern end of a chain of inshore reefs. It is just 75 metres from the sea wall of Hillarys Boat Harbour and its accessibility and beauty has made it one of the most popular dive sites in Perth. Caverns in the reef provide homes for many fish, including western blue devils, old wives, banded sweep, crested morwong, horseshoe leatherjackets,



Previous page:

Main: Port Jackson sharks are commonly seen by people diving in the south-west. They are usually harmless.

Inset: Invertebrates such as starfish and sea squirts often form a blaze of colour, coating a variety of underwater structures.

Photos – Eva Boogaard/Lochman
Transparencies

Above right: Yellow anemones are common in Marmion Marine Park. These animals use stinging tentacles to catch their prey and are closely related to jellyfish.

Photo – Dick Beilby/Lochman
Transparencies

Right: Bullseyes form large schools that often inhabit underwater caves.

Photo – Gerhardt Saueracker/Lochman
Transparencies



Right: Anemonefish inhabit coral reefs in tropical and sub-tropical areas such as Ningaloo. They produce a mucous that prevents the anemone's stinging tentacles from triggering, and gain protection from predators by retreating into the tentacles.

Photo – Eva Boogaard/Lochman
Transparencies

Below right: Stunning Pocillopora Reef, at Rottnest Island, is easy to reach from shore.

Photo – Gerhardt Saueracker/Lochman
Transparencies



dusky morwong, truncate coralfish, bullseyes, wrasse and red-striped cardinalfish. The reef top often comes alive with the frantic feeding of large schools of buffalo bream. Blue and orange nudibranchs are common and add to the colour.

Little Island, Cow Rocks, Wreck Rock and North Lump are also among the nine dive sites from Marmion Marine Park described in the new book. Little Island is particularly rich in invertebrate species. Sponges, gorgonians, hydroids, sea urchins and sea squirts can all be found in large numbers beneath ledges and in caves. The seagrass meadows that grow in sandy areas around the island support a huge range of animals such as bailer shells, and sea lions laze on the beach nearby. North Lump is an entirely submerged reef that offers a rewarding dive within a small area. It has interesting arches, caves and tunnels and excellent invertebrate life.

Rottnest Island, only a half hour boat trip from Fremantle, also has surprisingly beautiful underwater landscapes. Go snorkelling at Pocillopora Reef and you could be forgiven for thinking you were in the tropics. The reef is named after the species of beautiful pink coral, *Pocillopora damicornis*, that grows there in profusion. The coral reef community is completely different from any you will see elsewhere near Perth, and the variety of fish and invertebrate life is astounding for such a small area. Only a short swim from shore, the clumps of *Pocillopora* are so densely packed together that they lie virtually on top of one another.



Rottnest Island is the southernmost location where this species is known to grow. In fact, it is quite remarkable that these animals are able to grow here so far south of their normal tropical or sub-tropical habitat.

Beneath the water, the limestone that also forms the island itself has eroded to form spectacular cave formations, swimthroughs, ledges and grottos. Roe Reef, for instance, is among the most spectacular diving locations near Perth. Its numerous underwater grottos and caverns are inhabited by marine life, ranging from the large and impressive to the minute but colourful, such as tiny juvenile scalyfin. One of the highlights of this delightful reef is a large cave inhabited by large-snouted boarfish, some large

zebra fish, mosaic leatherjackets and other colourful fish species. Such is the variety of underwater formations around the island that virtually its entire coastline is diveable.

The maritime history of Rottnest dates back to the seventeenth century and the remains of 14 wrecks lie around the island. Shipwrecks include the *Macedon*, the *Denton Holme* and the *Lady Elizabeth*, to name but a few, and most of these can be dived.

LEEUEWIN-NATURALISTE COAST

Lying between three and four hours drive south of Perth are the coastal towns of Busselton, Dunsborough, Yallingup, Margaret River and Augusta. They are



nestled in picturesque farmland surrounded by wineries, caves, tall karri forest and national park. This area is the southern escape for many holiday-makers from Perth and it offers some tremendous diving. Busselton has the second-longest jetty in the southern hemisphere—1.8 kilometres long. Marine life of all shapes and colours has grown over and around the pylons. The last 50 metres or so offers the best diving, and here, due to the shade provided by the jetty and its distance from shore, you can see many deep water species.

The beauty of it all can be appreciated in only eight metres of water (the reason for the jetty's extraordinary length is that it was repeatedly extended because of silting). Piles near the end of the

structure are covered with masses of telesto coral, which is coated with brilliantly coloured sponges. During the day, they look like colourful tree branches without leaves, but at night they display a profusion of brilliant white coral polyps, the density of which has to be seen to be believed. Amid this mass of waving fronds live hundreds of leatherjackets, boxfish, truncate coralfish (western talma), old wives, false Tasmanian blennies, black-throated threefins, globefish, clingfish and even many of the unusual knight fish or pineapple fish. Gurnard perch cleverly disguise themselves as bits of wood, only their watchful eyes betraying they are living things. In recent months, an enormous Queensland groper has also taken up residence around the pylons. The Busselton jetty is a dive site that

should not be missed. It also makes a wonderful night dive.

Between Busselton and Augusta there are innumerable diving and snorkelling sites, either just off the shore or accessible by small boat. The pick of these sites are the most southerly—those nearest to Augusta. This is wild and rugged coastline, however, and you have to pick your time. If the conditions are suitable, the best dive sites are at Hamelin Bay, Cosy Corner and Flinders Bay. There are magnificent limestone reefs riddled with caves, swimthroughs, ledges and drop-offs. Bombies (discrete reefs) are crammed with marine life such as blue groper, Port Jackson sharks, harlequin fish, schooling fish, colourful reef fish and much more, plus the wealth of colourful invertebrates. Local identity

Above left: West Kingston Reef, near Rottneest, is the site of three shipwrecks, including the *Denton Holme* and the *Macedon*.

Photo – John & Val Butler/Lochman Transparencies

Above right: The Busselton Jetty provides one of the most rewarding dives in the south-west. Colourful invertebrates vie for space on the pylons and fallen timber.

Photo – Eva Boogaard/Lochman Transparencies

Right: White-barred boxfish are easily recognised by their striking shape and colouring.

Photo – Dick Beilby/Lochman Transparencies



Ted Wright even gave up one of his 'secret' sites for the book—a bombie in Flinders Bay that offers one of the best 45-minute dives you will ever complete in temperate waters.

CORAL COAST

The marine embayments of Shark Bay Marine Park also offer many shallow, but highly recommended, diving and snorkelling sites. The Broadhurst coral patch is around 500 metres in diameter, and swarms with colourful sea life. Many species of staghorn, brain and plate corals vie for attention, and there are numerous soft corals. A bright purple sponge growing throughout the area is notable.

The coral and fish communities of Sandy Point lie on the eastern side of Dirk Hartog Island. There are numerous species of blue, purple, green and brown staghorn corals growing in a great diversity of forms. In one area, there is a virtual garden of beautiful blue staghorn coral. Brain corals and plate corals can also be seen. There is such a large diversity of corals, in a kaleidoscope of colours and forms, that this is a good place to see how many different varieties and growth forms you can distinguish. Dugongs and marine turtles inhabit both areas and are frequently seen.

To the north, Ningaloo Marine Park offers a vastly different diving experience. It protects a 260-kilometre-long barrier reef, which is one of only two large coral reef systems to occur on the western edge of a continent. It is also the only large reef found so close to a continental land mass, being about 100 metres offshore at its closest point.



Above: Knight fish are among the more unusual fauna that can be seen at the farthest end of Busselton Jetty.
Photo – John & Val Butler/Lochman Transparencies

Right: When they feel threatened, globefish swallow air until their entire bodies inflate and their yellow spines become erect.
Photo – John Butler/Lochman Transparencies

Below: Corals grow in a variety of colours and forms in the shallows around Dirk Hartog Island.
Photo – Eva Boogaard/Lochman Transparencies



Divers flock to Ningaloo, despite it being one of the most isolated coastal locations in the world. Whale sharks regularly appear for an eight-week period between March and May each year—a phenomenon that is not known to occur anywhere else (see *LANDSCOPE*,

Summer 1994–95). As a result, a thriving charter industry has been established from the coastal town of Exmouth. But divers are not drawn to Ningaloo Marine Park only for the whale sharks. Ningaloo Reef runs along some of the most beautiful and unspoilt coastline in the world. It rivals the famed Great Barrier Reef in terms of the numbers of coral and fish species (few people who are not marine scientists could tell the difference), but unlike the Great Barrier Reef, the delightful coral gardens of Ningaloo and their resident tropical fish are accessible from the shore.

Turquoise Bay, 65 kilometres south of Exmouth, is an excellent dive site for the family because of its ease in most conditions, the rich diversity of coral, fish and other marine life very close to shore and the exceptional beauty of the beach and Turquoise Bay itself. Not far from shore, there are several large coral bombies as well as numerous smaller coral colonies, particularly brain coral

and the slow-growing massive coral. Many species of colourful reef fish live in and around the colonies of massive coral. The myriad of angelfish, wrasse and parrotfish in different shapes, sizes and colours are a delight to watch. Parrotfish are closely related to wrasse, but have dental plates which give them beak-like mouths. Like wrasse, they change sex from female to male.

At Pilgramunna Ledges, snorkellers can discover a surprising diversity of marine life, some beautiful coral formations, multitudes of colourful reef fish and occasional oceanic fish species, as well as rays, sharks and diverse invertebrates. All this is within only 10

metres of the shore. These, together with two sites from Coral Bay, make up some of the eight diving and snorkelling sites from Ningaloo Marine Park described in the new book.

NOT SO SECRET

Throughout *Dive and Snorkel Sites in Western Australia* there are features on marine life that reveal details of their enigmatic life histories. For instance, many mosaic leatherjackets actually spend the first few weeks of their lives within the bells of some types of jellyfish, where they gain protection from predators by staying within the jellyfish's stinging cells. Starfish can regrow their

bodies from a single severed arm, if it is attached to a portion of the central disc. Even the tiniest sea squirts may filter 170 litres of sea water each day, and sea cucumbers can eject their respiratory organ and gut, to distract predators, and then regrow their missing parts. The information provided about marine life will hopefully stimulate interest in the marine environment and encourage divers to adopt a conservation ethic.

Compiling this book was an enormously enjoyable experience. It is hoped that readers will derive just as much pleasure in discovering the sites for themselves. The secrets of the sea won't be secret for much longer!

Below: Despite their bright colours and attractive markings, harlequinfish are well-camouflaged.

Photo – Gerhardt Saueracker/Lochman Transparencies

Bottom: Nudibranchs, or sea slugs, are carnivorous. Many brightly-coloured species store distasteful and noxious chemicals in glands in their skin.

Photo – John Butler/Lochman Transparencies

Below: Delicate staghorn and plate corals inhabit many of the inshore areas of Ningaloo Marine Park.

Photo – John & Val Butler/Lochman Transparencies



Carolyn Thomson researched and compiled *Dive and Snorkel Sites in Western Australia*, in conjunction with CALM staff, dive shops and volunteers. She can be contacted on (09) 389 8644.

Dive and Snorkel Sites in Western Australia can be purchased from a variety of bookshops, dive shops and other outlets for \$14.95.

LANDSCOPE

VOLUME ELEVEN NO. 1 SPRING ISSUE 1995



The threatened Wyalkatchem foxglove is being given a helping hand by scientists from CALM and Kings Park and Botanic Garden (see page 17).



This nesting pair of splendid fairy-wrens is one of the many 'Birds of the Stirling Range' (see page 36).



WA Goldfields timbers are fast becoming recognised as prime materials for producing world-class musical instruments. See 'Musical Timbers' on page 48.



A new CALM book, Dive & Snorkel Sites in Western Australia, will encourage novice divers and snorkellers to explore the rich and diverse coastline of WA. See 'Secrets of the Sea' on page 10.



The common rock-rat, photographed here in the Kimberley, has recently been recorded in the Kennedy Range National Park. See page 28 for a profile of this wonderful wilderness area.

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COVER

The brilliant purple flowers of the twining fringed lily (*Thysanotus patersonii*) entwined around the burnt stem of a slender banksia (*B. attenuata*). See 'After the Burn' on page 21.

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Subscription enquiries: ☎ (09) 334 0481
 Colour Separation by Prepress Services
 Printed in Western Australia by Lamb Print

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Published by Dr s Shea, Executive Director
Department of Conservation and Land Management,
50 Hayman Road, Como, Western Australia 6152.