Discovering
Leeuwin-Naturaliste
National Park

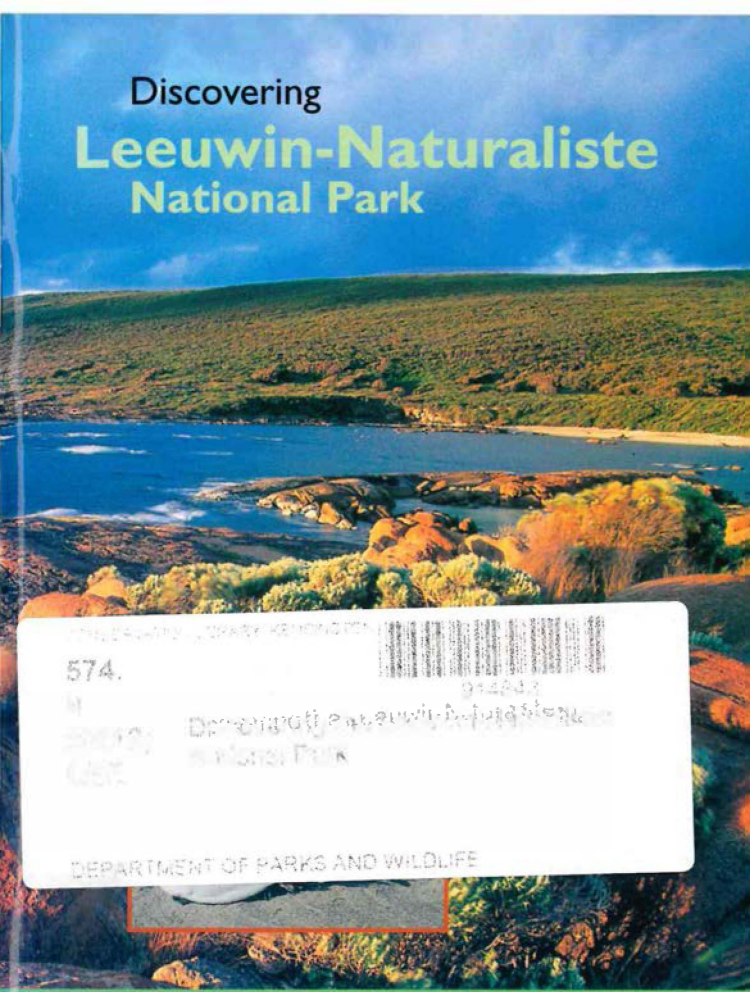

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Photo – Babs & Bert Wells/CALM.

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Discovering

The Leeuwin-Naturaliste

National Park

DEPARTMENT OF
Conservation
AND LAND MANAGEMENT
Conserving the nature of WA

INTRODUCTION

There are white sandy beaches interspersed with dramatic coastal cliffs. There is sparkling water and crashing surf. In winter and spring, whales can be seen launching themselves from the water or lolling about in the shallow bays. There are hundreds of caves filled with jewel-like formations. Yet these are only a few of the many attractions of Leeuwin-Naturaliste National Park.

Leeuwin-Naturaliste National Park stretches for 120 kilometres between the State's two most prominent capes—Cape Leeuwin and Cape Naturaliste. The park had its beginnings in the early 1930s. More land has gradually been added and today it comprises more than 19,000 hectares of coastal grandeur. Nearly all of the coastline between the capes, excluding the townsites of Yallingup, Smiths Beach, Gracetown and Prevelly Park, is included in the park. Its width varies from a narrow strip of only 100 metres in places, to more than five kilometres in the Boranup Forest.

Leeuwin-Naturaliste has the highest visitation of any park in Western Australia, with more than one million park visits each year. There is nowhere else like it in the State. It offers a rich tapestry of rugged coast, beaches, wild bushland, caves, forests, and historic and archaeological sites, which abut more developed areas such as resorts, vineyards, farms and attractive townships. Parts of Boranup and some sections of the coastline are still relatively inaccessible and wild, but much of the park is easily visited on foot, by road or by four-wheel-drive track. The region (the park together with the nearby farmland and towns) is still a largely unspoilt haven to which city dwellers, interstate and overseas visitors regularly flee, to restore a sense of spiritual balance to their lives.

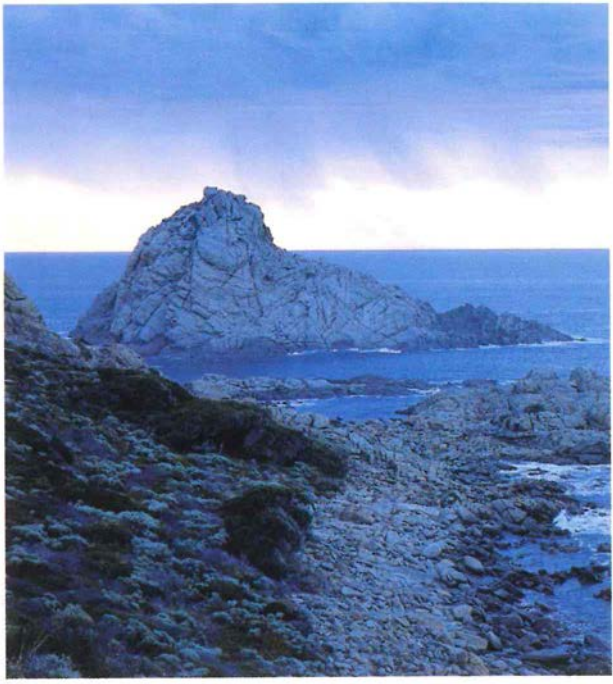


Photo – Jon Green/CALM

Sugarloaf Rock

GEOLOGY

The Leeuwin-Naturaliste ridge is a major feature of the national park, running from north to south between the Capes, and up to 200 metres high. The ridge is composed of two different rock types. Granitic rocks, more than 600 million years old form the basement of the ridge. These rocks are mainly hard crystalline granitic gneiss and granulite, formed in the Precambrian period. They are best seen in the headlands of the coast. Over these rocks, on most of the western side of the ridge, is the Tamala Limestone formation, which has consolidated from windblown sand dune deposits within the last two million years.

DUNSBOROUGH FAULT: The ridge is bounded on its eastern side by a fault in the Earth's surface known as the Dunsborough Fault, which runs north-south. Between the Dunsborough Fault and the higher ground east of Busselton, is a down-faulted block, filled with sediment. This is the southern part of the Perth Basin. At Augusta, the Blackwood River discharges into the ocean through the Hardy Inlet. The Inlet is aligned generally north-south along the position of the Dunsbrough Fault.

PRECAMBRIAN ROCKS: Granulite is sugar-like in texture. Granitic gneiss is a rock where the minerals look platy and appear to be drawn out into fine bands. This rock is more common towards Cape Leeuwin. These metamorphic rocks were formed when the original granite rocks were subjected to a period of intense heat and pressure, related to the break up of Gondwanaland, causing changes in their structure and mineral composition. They became layered and folded, forming bands of varying hardness lying roughly parallel to the present coastline.

CANAL ROCKS: During the period of intense movement described above, some of the older rocks remained only partly changed and today they are included within the granulite material. They are known as xenoliths. There are also bands of

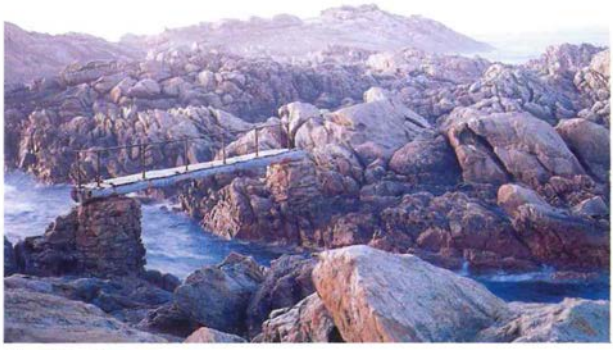


Photo – Jiri Lochman

Canal Rocks

darker rock which may also be xenoliths. Many of these bands run parallel to the present coast and to the Dunsborough Fault. Some bands of this darker material, which is comprised of the minerals hornblende and plagioclase, are very long and are more easily eroded by the effects of wind, rain and sea action than the harder granitic rocks. In places, these bands have been cut through by the sea, allowing small islands to develop. The best example of this can be seen at Canal Rocks, south of Yallingup. Here, granitic rocks jut into the ocean and are separated by a series of canals that have been hollowed out by the sea.

CAVE FORMATION: As the soluble limestone lies on granitic base rocks that are almost impermeable, groundwater is concentrated in streams that flow in cavernous channels just above bedrock. Hence, a system of caves has formed throughout the ridge. These caves contain the remains of marsupials that have long been extinct in Western Australia, including the giant echidna (*Zaglossus hackettii*), thylacine (*Thylacinus cynocephalus*), Tasmanian devil (*Sarcophilus harrissii*) and koala (*Phascolarctos cinereus*). Associated with the marsupial remains are human teeth and bone fragments of great antiquity.

CAVES OF THE CAPE

The first tourists to the Leeuwin-Naturaliste region were attracted here by the caves. Mr Winthrop Hackett, president of the Western Australian Museum at the beginning of the twentieth century, understood the great scientific value of caves and fostered the development of the Caves Board to administer the caves of the Leeuwin-Naturaliste ridge and ensure their protection. Accommodation was planned for Yallingup (Caves House), regulations were framed for the guidance of the public and caretakers, and steps and gates were installed in several caves. The advertising of the caves as 'Resorts of Pleasure and Health' began in 1903. The issuing of coupons covering all expenses (1904) and the production of postcards all encouraged a steady increase in visitor numbers.

Early tours were conducted by the light of hurricane lamps, candles and magnesium except for Yallingup Cave (Ngilgi), which had electric lighting. Caves open to the public during this period included Yallingup Cave (Ngilgi), Calgardup Cave, Mammoth Cave, Lake Cave and Giants Cave, plus several others. Unfortunately, the Caves Board was dissolved in 1910.

There are more than 100 caves in the limestone of the Leeuwin-Naturaliste ridge. The majority of the caves are in CALM-managed land. Some are found within local tourism association reserves and others are in private property. You can visit several caves on the ridge, including:

- Calgardup and Giants Caves, managed by CALM, ph. 9757 7422. These caves are not electrically lit and are self-guided. Visitors are equipped with helmets, lamps and information for their very own discovery of these subterranean wonderlands;
- Ngilgi Cave, run by the Cape Naturaliste Tourism Association, ph. 9755 2152;
- the Mammoth, Lake, Jewel and Moondyne caves, managed by

Photo – Michael James/CALM

Entering Calgardup Cave

the Augusta Margaret River Tourism Association, ph. 9757 7411. Caveworks Discovery Centre includes a walkthrough cave model and interactive touch screens.

Other selected caves and abseiling sites are available to CALM-approved cave leaders and abseil instructors. Permits for these sites are obtained at the Calgardup Cave office, where you can also find information on licensed commercial operators able to lead you on a caving or abseiling excursion.

When exploring caves, it is vital not to touch cave decorations, as they are brittle and highly susceptible to damage, and their growth is impeded by skin oils, acids and dirt on our hands. By keeping to a single trail, and by not eating, drinking or smoking, we reduce the impact of visitation.

CALGARDUP CAVE

Calgardup Cave, about 15 kilometres south-west of Margaret River on Caves Road, is easily accessible to all ages, with boardwalks throughout. It is relatively shallow, offering magnificent viewing of variously coloured calcite crystal deposits, including fragile straws, walls of coloured flowstone, stalagmites and stalactites.

The cave was discovered in 1878 by Grace Bussell, one of the area's early settlers. Tim Connelly, an early cave enthusiast and explorer, together with Fred Bussell, examined the cave in 1898. It was then set up as a tourist cave with stairs, rails and walkways installed in 1904-1906. It was a popular tourist destination for some years and its crystal decorations were much admired. In the early days of the 1900s a member of the Caves Board, Mr Erskine May, wrote of Calgardup, 'Most of the explored chambers in this vast cavern are of indescribable beauty.'

In later decades, the infrastructure fell into disrepair and years of uncontrolled visitation damaged the cave's fragile environment. In 1995, CALM installed new steps and walkways inside to prevent further degradation. An extensive ongoing rehabilitation program began. This included washing down crystal to remove mud and erosive sand introduced by people, restoring the sand banks which were trodden into the lake, and encouraging an attitude of sensitive visitation.

The cave goes to a depth of 27 metres and the boardwalk forks into two branches, each about 150 metres long. The lake at the bottom of the right hand section displays reflections of the stalactites suspended above, giving the illusion of great depth in the water (actually only a few centimetres deep!) The water in the lake is a deep tea colour due to tannins picked up on the surface from vegetation. The 'Suspended Dome', two metres

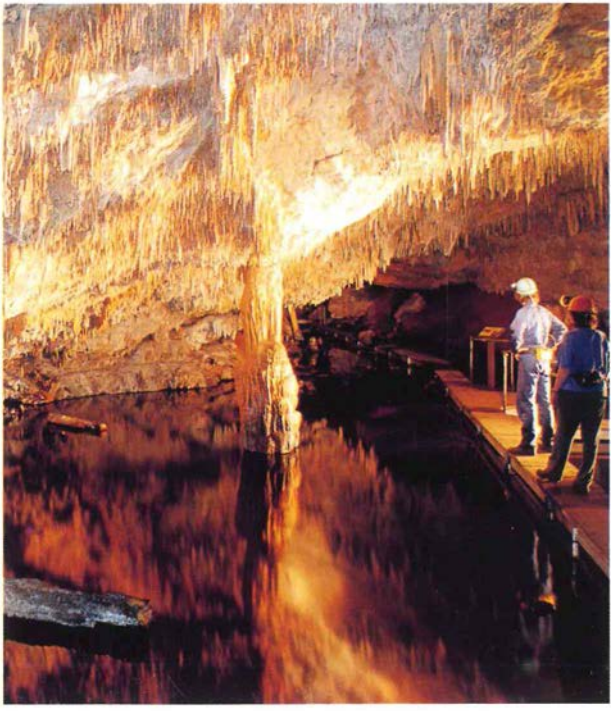


Photo – Michael James/CALM

long and held in mid-air by a stalactite, is best seen on the return from the end of the right-hand section. The 'Meteorite Shower' at the end of the left-hand section is still stunning to look at, even though it was extensively damaged three decades ago.

The stream system which excavated the cave out of the limestone about 150,000 years ago is still active, and gurgles and trickles its way through the cave all year round, feeding the lake, and carrying nutrients to the many tiny cave creatures which inhabit the water.

GIANTS CAVE

Giants Cave is one of the largest and deepest caves on the Leeuwin-Naturaliste ridge. It is 575 metres long and goes down to approximately 86 metres underground. The cave was first recorded in 1900 by noted cave explorer Marmaduke Terry. In the early part of the twentieth century it was used as a tourist cave, and fitted with about 300 metres of steps and rails together with a picnic platform at the bottom of the entrance staircase!

The cave has a spectacular doline entrance with a diameter of about 100 metres. A doline is a crater formed by the collapse of a cave roof. The doline at Giants Cave was formed thousands of years ago. Long, steep steps lead from the doline into the cave itself. As you descend, you can see natural sculptures of various colours and textures on the ceiling, created by a combination of algal growth and calcite deposits. Many nocturnal animals rest in these semi-dark areas during the day.

In early winter, fungi proliferate at the base of the stairs. Moonmilk can be seen on the walls and ceilings in several places. White, and resembling ricotta cheese, moonmilk is a living culture, absorbing nutrients from the decay of organic matter, and chewing up the limestone until it becomes crumbly. In the past, moonmilk was applied as a poultice on infected wounds. Nowadays, we leave it alone.

Soon after entering the cave the path goes beneath Caves Road. The marked trail negotiates a rock pile and descends to the Ballroom, a spectacular chamber 40 metres long with a flat sandy floor. This was once a stream bed, and when the water diverted from the cave, the floor was coated with calcite. This delicate dusting of fine crystals has been obliterated by decades of trampling.

A connection linking the Ballroom through the rock pile to the Arborite Chamber and the rest of the cave was discovered

Photo – Michael James/CALM

in 1958. Numerous visitors climbing through the rock pile created unstable areas, and in 1993 ladders were installed to bypass the danger zone. The Arborite Chamber has massive calcified tree roots suspended from its lofty roof. Arborites are multi-coloured, due to the various minerals and tannins deposited by seeping water.

You leave the cave through a gate into a small doline, and a bush track leads back to the guide hut at the entrance. Giants Cave provides an exciting challenge. The sense of adventure is matched only by the sense of achievement on emerging at the other end. This emotion would be diminished if visitors had to be supervised. Visitors are trusted to respect the sensitive nature of the cave environment, and to pass on that respect to younger group members.

ABSEILING AND ROCK CLIMBING

In the last 30 years, abseiling and rock climbing have become increasingly popular in the Leeuwin-Naturaliste National Park. Originally developed as a means to access some of the vertical entry caves in remote areas, abseiling soon became regarded as a sport in its own right. Some of the sites available for abseiling in the park also give access to some beautiful caves, and licenced operators are able to obtain permits to use them. For further information contact the Calgardup Cave Information Centre on (08) 9757 7422.

One of the most popular abseiling sites is the awe-inspiring Brides Cave. Originally known as 'Inaccessible Cave', it was renamed in honour of Deborah Brockman (daughter of Grace Bussell) and Winthrop Hackett, who visited whilst on honeymoon. Brides Cave has a spectacular collapse doline about 30 metres in diameter and 30 metres deep. After abseiling down the cliff there is no way up again without a rope or caving ladder! Although a permit and approved leader are required to abseil or enter the cave, it is possible to visit the site and view the doline from a viewing platform. Please supervise children. It is also possible to abseil into Calgardup and Giants Caves with a CALM-approved instructor.

The Wilyabrup sea cliffs were 'discovered' in the early 1970s, and quickly gained a reputation as a spectacular rock climbing site with a diverse range of climbs that cater for beginners to the very experienced. Many operators who use the Wilyabrup site 'yo-yo' up and down the cliffs, alternating a climb with an abseil, thus expanding the experience for their participants.

Although experienced climbers may use the cliffs for recreational purposes, it must be stressed that abseiling and rock climbing are inherently dangerous activities. It is essential

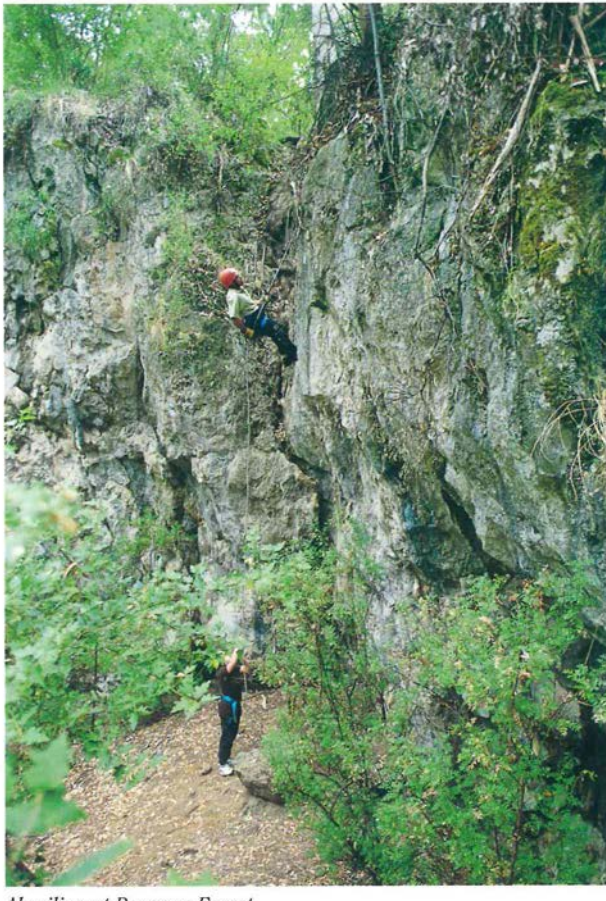


Photo – Chris Garnett/CALM

Abseiling at Boranup Forest

that participants are accompanied by a qualified and experienced leader, with current approved equipment.

HISTORY

Aboriginal occupation of the Leeuwin-Naturaliste area dates back at least 40,000 years. This is reflected in the names of many sites such as Yallingup, which means 'place of love', Meekadarabee 'the moon's bathing place' and Boranup 'place of the dingo'. Nearby Cowaramup is the place of the parrot (cowra) or purple-crowned lorikeet, which brought the fire to Earth. Injidup comes from the Nyoongar word (inji) for the lovely red pea flower (*Templetonia retusa*), which grows along the limestone cliffs in spring. To Aboriginal people this area was a land of plenty, providing local tribes with a rich smorgasbord of edible plants, wildlife and fish.

Mariners aboard the Dutch ship *Leeuwin* made the first recorded sighting of the South-West in 1622. The theory that at least some of the crew went ashore was substantiated by the finding of a seventeenth century Dutch clog at Flinders Bay in 1930. The Dutch were followed by the French and the English in the 1790s and the early 1800s. French names dominate the coast between the Capes—de Freycinet, Hamelin, Mentelle, Clairault, Naturaliste—although it was an Englishman, Matthew Flinders, who accurately charted much of the coastline. Eventually the English settled the area, first at Augusta in 1830, and soon afterwards on the Vasse River (later Busselton).

Alfred and Ellen Bussell established Ellensbrook—the first homestead between the Capes—in 1857, and they farmed successfully there for eight years before moving to Wallcliffe House on the Margaret River. Other settlers gradually followed, until the population exploded during a timber boom in the 1890s. Timber tycoon Maurice Coleman Davies exported jarrah and karri wood from Augusta and Hamelin Bay. It was at this time that the lighthouses were built—Leeuwin in 1896 and Naturaliste in 1903—warning ships away from this wild

Photo – Gordon Roberts/CALM

Ellensbrook Homestead

coastline. The many wrecks offshore testify to the fickle weather and swells.

The Capes region has long been a place of recreation. Fishers wound their way along sandy bush tracks to the beaches long before there were roads, and named their favourite spots—Cosy Corner, Bobs Hollow, Contos—adding another layer to the historical tapestry.

GEORGIANA MOLLOY

Georgiana Molloy married Captain John Molloy on August 6, 1829 at the age 24. The couple emigrated to the Swan River Colony soon afterwards, arriving aboard the *Warrior* on March 12, 1830, only a few months after Captain Stirling anchored at Garden Island in the *Parmelia* on June 1, 1829.

With the colony in a chaotic state and the good land around the Swan River already allocated, Governor Stirling convinced the Molloys, Bussells and a handful of other settlers to pioneer at Augusta on the Blackwood River. Arriving in Flinders Bay on the *Emily Taylor* on May 2, the settlers began to erect rudimentary accommodation, farm the infertile soils and clear part of the heavy forest that grew right to the water's edge. Despite the poverty and struggle to survive, Molloy managed to establish a modest flower garden with seeds brought from England.

Before long, the settlers looked further afield and claimed land in the Vasse region, with most gradually establishing farms in more fertile and open country around what is now Busselton. The Molloys relocated there in 1839.

In 1836, while still based at Augusta, Molloy received a request from Captain James Mangles, a horticulturalist interested in the plants of south-western Australia, to collect native seeds and specimens on his behalf. Despite having a young family to care for, Molloy began to zealously undertake this task. After finding flowering plants during bushland rambles, she would note and number the locations and return several times through flowering until the seeds were ready to collect. Such expeditions imparted great joy. Molloy wrote to Mangles that 'being in the Bush was one of the most delightful states of existence, free from every household care'.

When her seeds and specimens finally arrived in England, John Lindley, Professor of Botany at University College,

Photo – Courtesy of the Bunbury family and in memory of their own daughter, Georgiana

pronounced that 'many of the best are quite new'. Among them were the first collection of the marri tree (*Corymbia calophylla*).

Molloy continued collecting when she moved to the Vasse area, enlisting help from her family, other settlers, and even local soldiers. She relied heavily on local Aboriginal people to help her find and collect seeds. They included the yellow drumstick to which John Lindley gave the name *Isopogon sphaerocephalus*.

Georgiana Molloy died at the age of 37, following complications after giving birth to her seventh child, leaving five surviving daughters and a legacy of knowledge about the botanical resources of the South-West, and, in particular, of the Leeuwin-Naturaliste area.

MAURICE COLEMAN DAVIES: TIMBER TYCOON

Maurice Coleman Davies began his career on the Victorian goldfields, where he built a business trading in mining engineering supplies. After surveying the timber resources of the South-West in 1875, Davies decided to invest in the industry. Early in 1876 he purchased a large share in the Jarrahdale and Rockingham Timber Company—the State's first timber export company.

In 1879, Davies began pestering the Government for a lease on 'forest wilderness' south of Margaret River, a strip a few kilometres wide that stretched for some 40 kilometres. It was adjacent to two natural ports at Flinders Bay and Hamelin Bay—where the big trees once grew almost to the seashore. The only trouble was that most of the big trees were karri (*Eucalyptus diversicolor*), unheard of in London where 'West Australian timber' meant jarrah (*Eucalyptus marginata*).

Trial consignments were sent to bridge builders, mining and railway engineers all over the world. Davies had a magistrate take a declaration from Alfred Bussell that karri logs hauled out of the Blackwood River were those that he and his brothers had toppled in there nearly 50 years earlier. The magistrate testified that, despite the immersion, the logs were as 'sound as a bell'. Davies sent a log which had been submerged in the ocean for 30 years to Kew Gardens so clients might witness karri's durability for themselves. The British Admiralty timber inspector tested karri and found it stronger than jarrah. With these testimonials, Davies convinced prospective customers that karri was superior to jarrah. In time this proved not quite true, as jarrah outlasts karri in moist underground applications and termite-prone areas. Nevertheless, karri timber was available in immense unbroken lengths, the best available for superstructures, such as bridges, wharf scantlings and mine poppet heads.

Photo – Reproduced with permission from Davies family files

KARRIDALE: In 1882, the Government granted Davies a 42 year lease on 46,000 acres (about 18,000 hectares), at a minuscule fee of £150 per year, the freehold option on some adjoining land and eight 50 acre blocks at Hamelin Bay for 10 shillings each. Two thirds of the land was forested with jarrah and marri and the rest with karri. The lease allowed Davies to take all millable timber, on condition that he produced a minimum amount of sawn timber every month and built a jetty at Hamelin Bay within 12 months. The jetty was built promptly, 1800 feet long, and capable of berthing three ships at a time with steam cranes alongside. Fresh water was laid on from a spring and telephone facilities were established to the company's head office in nearby Karridale.

In 1884 a new mill, the most advanced in the colony, was built at Karridale. The forests, mills and port were all connected by a railway. Two small steam engines were purchased and numerous rolling stock were built at the company's new workshop at Karridale.

Davies was the father of six boys, who joined him to learn every aspect of the timber milling business. His wife and two daughters remained in Adelaide until Davies constructed a 29-room mansion known as the 'Big House' at Karridale, and by 1885 the whole family called Karridale home.

Although wages were low—between seven and 13 shillings per day—the company provided workers with a cottage, rent free. It paid for a doctor and a clergyman and built a hospital, town hall, school, racecourse and a library, which was regularly stocked with the latest books. Consumables, including fresh fruit and vegetables from the company orchards and gardens and meat from its farm, as well as every conceivable item, could be bought from the company's store. The company had an agreement with the workers allowing a 10 per cent mark-up on Perth prices to cover freight.

Being so isolated, the company was able to instigate a cash-free society, with workers having an account with the company against which they could trade at the store. Workers who had more than £10 in credit earnt interest at a rate of five per cent per annum. When workers left the community they were paid in Davies and Co 'banknotes'—cheques which could be redeemed for cash at any bank in the Colony. When Davies ordered a grand piano for the Big House, his wife Sarah insisted on ordering a second for the community hall.

In 1891, a new steam mill was commissioned at Boranup, but was destroyed by fire a few years later and promptly replaced with a bigger one at Jarrahdene in 1895. During this period, Davies restructured his company to take his sons in as partners.

THE END OF AN ERA: In 1900, the company started to sink due to 'keen competition, over production, increase of freights, and lastly to the war in South Africa'. In fact, all of the major Western Australian timber traders were in dire straights. After protracted negotiations, the company amalgamated with several others to become Millars' Karri and Jarrah Forests (1902)

Photo – Reproduced with permission from Davies family files

Maurice Coleman Davies and his sons in front of the 'Big House' in 1899

Limited. Davies stepped aside, but most of his sons held management positions in the new company, in other mills and overseas, for many years. The Millars company traded out of difficulty, but by 1907 the timber resource at Karridale had dwindled and the Hamelin port closed. Davies retired to his house in Perth. He died in 1913, within weeks of the last mill at Karridale closing.

In 1961, fire destroyed the remnants of Karridale, which had once housed 800 residents. Today, a magnificent young karri forest, regrown from the cut out timber lease, stands in Leeuwin-Naturaliste National Park. The only remains of the mills are foundations and chimneys. Rotting stumps jutting out from the Indian Ocean verify the existence of the magnificent piers.

Only the Big House—moved to Margaret River in the 1950s to become a convent and later a restaurant—remains. Davies' Karridale estate has disappeared almost without trace.

SHIPWRECKS

The Leeuwin-Naturaliste coast is notorious for its wild, unpredictable seas and numerous shipwrecks. Eleven of these wrecks lie at Hamelin Bay. The WA Maritime Museum's Hamelin Bay Wreck Trail features four visible wrecks: the *Agincourt* (1882), *Chaudiere* (1883), *Katinka* (1900) and *Toba* (1930s/1940s). The four wrecks are visible from the coast at times and are accessible by snorkel and scuba in good weather.

The Hamelin Bay jetty was built in 1882 to service a nearby timber mill (see pages 18-21). However, Hamelin Bay is open to the north-west and the dangers of these winds caused the loss of five vessels in 1900, including three in one storm on July 22, 1900. A letter of August 1, 1900 from Mr G F McGregor to his son Alexander described this storm. A violent wind came initially from the north-north-west. The wind then backed to the south-west and strengthened to such force that sheets of water were lifted from the sea and carried inland, filling McGregor's rainwater tank with sea water. The wind forced those on the jetty to crawl on all fours to safety while clinging to the railway line that ran along its length.

Dawn revealed a scene of great destruction. Two of the *Katinka's* masts (with surviving crew grimly attached) were all that could be seen of that vessel. Eight crew members died in the tragedy. The Danish barque *Norwester* and the Norwegian barque *Lovspring* lay stranded on the beach amongst the floating wreckage. Hamelin Bay was abandoned as a timber port a few years later. The jetty became derelict and was later burnt.

Another notable wreck along the Leeuwin-Naturaliste coast was the *Georgette*. This 46-metre iron steamer got into difficulties on December 1, 1876 and ran ashore at Calgardup Beach, Redgate. Seven lives were lost when a lifeboat, launched before the *Georgette* came ashore, overturned. The wreck was

Photo – Chris Garnett/CALM

The remains of Hamelin Bay jetty.

seen in the breakers by Aboriginal stockman Sam Isaacs and a 16-year-old girl, Grace Bussell, who both helped the survivors ashore. The wreck was found in 1964.

HISTORIC LIGHTHOUSES

CAPE NATURALISTE LIGHTHOUSE: Cape Naturaliste lighthouse stands on a 100-metre bluff overlooking Geographe Bay. Twenty metres high, the lighthouse was built in 1903, with limestone carted by bullock wagon from a quarry about a mile away. Before the lighthouse was built, most mariners depended on a barrel on top of a 30 foot pole in Busselton to mark the best landing place. Later, a lantern was hung from the top of a pole so it could be seen at night. The lighthouse's three original keepers' quarters are still standing. Life for these people revolved around night watches, which were divided into three periods, one for each man. During each watch, the keeper had to wind the clockwork and pump kerosene to the burner. Cape Naturaliste lighthouse is now an automatic operation, with its white beam visible for 26 nautical miles (48 kilometres), flashing twice every 10 seconds.

LEEUWIN LIGHTHOUSE: In 1895 Maurice Coleman Davies (see pages 18-21) and a former partner successfully tendered to construct the State's first lighthouse at Cape Leeuwin for £7782. As testimony to the thoroughness of its construction, and of C Y O'Connor's design of the clockwork apparatus and kerosene lantern, the 56-metre-tall light operated in original condition until 1982, when it was converted to hydraulics and electricity. Before the light was officially opened in 1896, some 16 ships had been wrecked near the notoriously hazardous cape.

Cape Leeuwin lighthouse, on Australia's most south-westerly point, guards one of the busiest sea traffic routes on the Australian coast. This was especially so when most Australian-bound ships travelled via the Cape of Good Hope and Cape Leeuwin was often the first Australian landfall. Today, the lighthouse is maintained by the Commonwealth Department of Transport, although its future is uncertain in these days of satellite navigation.

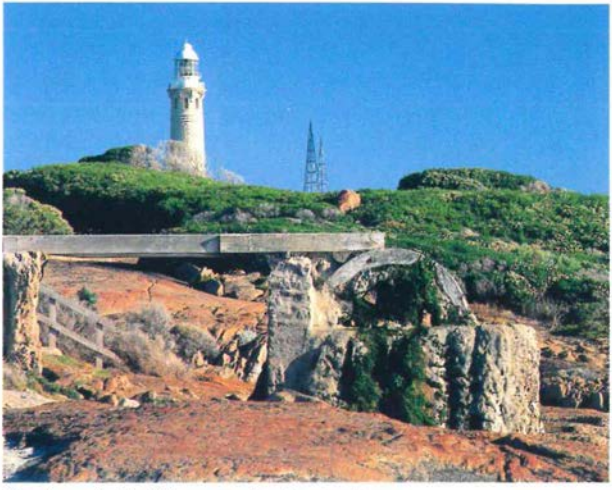


Photo – Bill Belson/Lochman Transparencies

The Leeuwin lighthouse and waterwheel.

The foundations had to be built three times deeper than planned—22 feet or nearly seven metres—because of loose boulders on the site. The lighthouse is built of local stone and was originally designed to show two lights—the higher white light and a lower red light, which was never installed. Its present automatic white electric light has an intensity of one million candlepower and a range of about 25 nautical miles. There are daily tours of the lighthouse, which has sweeping views of the Indian and Southern oceans. However, the Department of Transport occasionally closes the lighthouse tower, without notice, for maintenance.

LEEUWIN WATERWHEEL: The waterwheel built to supply the lighthouse's fresh water from a nearby stream is still standing and is registered by the National Trust. The wheel was used until the late 1920s and restoration work is planned to remove the layers of sediment encasing it.

RARE PLANTS AND TALL TREES

Tiny orchids, giant karri, ancient grasstrees and several rare plants are all found in Leeuwin-Naturaliste National Park. Two main vegetation types dominate the park: low windswept open heath on the thin soil layer on top of limestone cliffs and open peppermint scrub on the coastal sand and limestones.

COASTAL HEATH: Common to the heaths is the prickly shark-toothed wattle (*Acacia littorea*) and the red-flowered cockies tongue (*Templetonia retusa*). Closer to the coast, the smoky grey foliage of native rosemary (*Olearea axillaris*) becomes abundant. It has a pleasant herbal smell when you crush its leaves. Thick-leaved fanflower (*Scaevola crassifolia*) has broad, thick and slightly fleshy leaves up to eight centimetres long and small pale blue to violet fan-like flowers. You can also see coastal banjine (*Pimelia ferruginea*), with domed pink flower heads, basket bush (*Spyridium globulosum*), coastal sword sedge (*Lepidosperma gladiatum*) and Australian bluebell (*Sollya heterophylla*), with its small mauve to blue, bell-like flowers, while dodder-laurel clambers over neighbouring plants.

PEPPERMINT SCRUB: Peppermint trees (*Agonis flexuosa*), named for their scented leaves, grow among a variety of other shrub species. Where limestone is present, parrotbush (*Dryandra sessilis*) and chenille honey-myrtle (*Melaleuca huegelii*) occur. Near Cape Naturaliste, the hardwood tree jarrah (*Eucalyptus marginata*) grows as a tall shrub.

KARRI FOREST: In the karri forest at Boranup, waterbush and karri hazel form a dense understorey beneath the giant trees, and in spring white clematis, purple hovea and coral creepers add vivid colours to the cool green of the forest.

RARE AND RESTRICTED PLANTS: Despite the immense popularity of the Leeuwin-Naturaliste area, the ridge is home to several rare and restricted plants. Bussell's spider orchid

Photo – Chris Garnett/CALM

Pineapple bush

(*Caladenia busselliana* ms) is known only from two small populations at the northern end of the park. Dunsborough spider orchid (*Caladenia viridescens* ms) is found in only a few scattered localities in the Dunsborough area. Naturaliste nancy (*Wurmbea calcicola*) is found in a few small pockets, mostly in the north of the park. Interim recovery plans are under way to assist CALM staff to manage these three species.

Pineapple bush (*Dasypogon hookeri*) is restricted to the Leeuwin-Naturaliste ridge, the Whicher Range, south of Busselton and the coast south of Pemberton. A one-sided bottlebrush, granite clawflower (*Calothamnus graniticus*), is found only on Cape Naturaliste and can be recognised by its red, feathery claw-like flowers.

FUNNEL-WEB SPIDER ORCHID

(Caladenia infundibularis)

In early November this tall, graceful orchid, which was described by Alex George in 1984, can be seen scattered in the undergrowth along Caves Road, south of Yallingup. Nearer to the coast, it protrudes through the short, wind-pruned undergrowth amid the pinks, yellows and whites of associated wildflowers. Rare hybrids are occasionally found where it grows with karri spider orchid (*Caladenia brownii*) and forest mantis orchid (*Caladenia attingens* subsp. *attingens*).

DESCRIPTION: This attractive orchid, with its beautiful green, yellow and red flowers up to six centimetres across, can reach 60 centimetres high. Its leaf, up to 30 centimetres long, and stem are covered with short dense hairs. The prominent labellum (lip) ends in a dark red, funnel-shaped apex.

DISTINCTIVE FEATURES: This unusual species is readily separated from most others by its distinctive flattened, outward-projecting labellum. Its nearest relative, the granite spider orchid (*Caladenia granitora*), has a similar labellum but has smaller, paler-coloured flowers.

HABITAT: The funnel-web spider orchid is often locally abundant and grows equally well in areas of mixed jarrah, karri forest and low coastal heath.

DISTRIBUTION: This orchid is particularly common along the Leeuwin-Naturaliste ridge, between Dunsborough and Augusta, but is also found in scattered populations east to Northcliffe.

FLOWERING: Late September to November.

Photo – Babs & Bert Wells/CALM

POSSUMS

Many small animals on the Leeuwin-Naturaliste ridge are making a comeback due to the success of the Department of Conservation and Land Management's *Western Shield* program. *Western Shield* controls introduced foxes by baiting with 1080, a poison that occurs naturally in certain native pea plants. As a result, the chances of spotting a ringtail possum at night are increasing, and brushtail possums make regular visits to forest campsites, especially Point Road.

WESTERN RINGTAIL POSSUM: Western ringtail possums (*Pseudocheirus occidentalis*) are distinguished from larger brushtail possums by their smaller rounded ears, and tails with shorter fur. This species has suffered a severe decline in recent decades, but survives in reasonable numbers in a few coastal areas of peppermint woodland, particularly in the area around Busselton. They are, however, threatened. Their decline has been attributed to clearing and fox predation. Western ringtail possums usually have dark brown fur, with a lighter belly. The tail fur lies flat and ends in a white tip. The ringed tail is curled around the branches as an aid in climbing. The ears are small and rounded. Adults weigh around one kilogram.

BRUSHTAIL POSSUM: Brushtails (*Trichosurus vulpeca*) found in WA are usually silver grey with a pale belly. Some individuals, however, can be quite dark and occasionally have reddish shoulders and necks. The tail is bushy, with a black or white tip. Brushtail possums have large eyes and erect, prominent ears. Their faces are more pointed than those of ringtails. They are also bigger, with females attaining around 1.3 kilograms and males 1.6 kilograms. Males often have a reddish stain on their chest, indicating an active scent gland. Brushtails live in a wide range of habitats. They are common and frequently found in towns and cities. They live in open forest and woodland with sufficient older trees to provide hollows.

Photo – Babs & Bert Wells/CALM

Above: *Western ringtail possum*

Below: *Brushtail possum*

Photo – Jiri Lochman

RED-TAILED TROPICBIRD

(Phaethon rubricauda)

Despite its distance from tropical seas, Sugarloaf Rock provides an unlikely nest site for a few pairs of red-tailed tropicbirds. In fact, the rock is the southernmost breeding site for the species. These oceanic birds are usually solitary, roaming the tropical waters between the western Indian Ocean and the mid-Pacific, only forming loose communities at nesting time.

DESCRIPTION: Red-tailed tropicbirds are most easily recognised by their two streamer-like tail feathers and bright coral red bill. Its large, gull-shaped body is white infused with a subtle pink hue.

STATUS AND DISTRIBUTION: The species normally inhabits tropical and subtropical seas around northern Australia, Hawaii and other places. Tricky currents around the rock, and its ocean moat, have traditionally given the birds sufficient protection and privacy from people and mainland animals. But, with mounting pressure for recreational and residential developments in the Dunsborough area and the lure of Leeuwin-Naturaliste National Park's scenic coastline, there is a challenge to ensure the reserve remains in its current undisturbed state. Silver gulls sometimes steal eggs and chicks.

LIFE HISTORY: Adapted to spending most of their lives at sea, the birds struggle to walk or stand on land. The red-tailed tropicbird indulges in an aerial courtship ritual before nesting. Such displays are performed by one to six birds, but usually in pairs. The birds remain almost stationary and swing their tail streamers from side to side as they cackle to one another. Nests are usually little more than a scrape in the ground or a ledge under a rock. At most, they are ornamented with a few pieces of shrivelled pigface, with perhaps a broken shell or two around the edge. Occasionally, the birds squirm under the few low shrubs clinging to the rock.

Photo – Jon Green/CALM

A red-tailed tropicbird nesting on Sugarloaf Rock

WHITE-BELLIED FROG

(Geocrinia alba)

The white-bellied frog was only discovered in 1983 by frog researchers Grant Wardell-Johnson and Dale Roberts in the jarrah forest of the Leeuwin-Naturaliste National Park. The closely related orange-bellied frog (*Geocrinia vitellina*) has a bright yellowish-orange underside. The orange-bellied frog is confined to a very small area within State forest to the north of the Blackwood River, north-east of Augusta. Both species are threatened and recovery plans are under way to conserve their habitat and thence bring them back from extinction.

DESCRIPTION: The underside of the white-bellied frog is white or very faint yellow and the skin is smooth. The back is light to dark brown, with a series of raised dark spots forming distinct rows. Adults reach no more than 2.4 centimetres long.

DISTRIBUTION: White-bellied frogs are confined to a few sites in the Witchcliffe-Karridale area in the high rainfall region between Margaret River and Augusta. Their entire habitat occurs over an area of about 130 square kilometres. However, within this area, the sites with suitable habitat cover just 1.9 square kilometres.

PREFERRED HABITAT: These tiny frogs shelter in damp peaty sites in tea tree swamps. Unfortunately, clearing of native vegetation for agriculture has left few frog swamps suitable for white-bellied frogs. Although some of the range of the frog still remains uncleared, much is privately owned and therefore at risk of being cleared in the future. The protection of suitable sections of creek is essential to ensure the frogs' survival. This includes protection of the habitat from summer and autumn fires.

LIFE HISTORY: The males call in spring to early summer, with peak activity in September and October.

Photo – Grant Wardell-Johnson/CALM

CALL: Males make a series of short clicks, each click like the sound made by pulling your tongue from the roof of your mouth. There are about 15 clicks in each burst (compared to about 11 in the orange-bellied frog, which makes a similar call). The clicking is only just slow enough to count and changes with temperature. Warmer frogs call faster.

HUMPBACK WHALE

(Megaptera novaeangliae)

Following their recovery from the brink of extinction, pods of humpbacks are again becoming a spectacle as they pass close to the coast on their journey south. They can often be seen off the Leeuwin-Naturaliste coast. Regular whale watching tours operate from Busselton, Dunsborough and Augusta during the season. Humpbacks, the fifth largest of the great whales, are noted for their haunting songs. Named because of the distinct 'hump' that shows as the whale arches its back when it dives, humpbacks are more coastal than most of the other large baleen whales. When in a playful mood, they may put on spectacular displays: breaching, rolling or slapping their pectoral fins.

DESCRIPTION: Humpbacks have knobby heads, very long flippers with knobs on the front edge, and a humped dorsal fin. They are blackish, with white undersides and sides. Adults are generally about 15 metres long. The maximum length is 18 metres and a mature adult may weigh up to 45 tonnes.

DISTRIBUTION: Humpbacks live in all the world's oceans. Since whaling of humpbacks ceased in 1963, their numbers are recovering at a remarkable 10 per cent each year. Nevertheless, there are estimated to be only a few thousand humpback whales in southern oceans and in WA they are considered endangered.

MIGRATION: Each autumn, in late April to early May, the Australian humpbacks leave Antarctica to migrate to their tropical calving grounds along the west and east coasts of Australia. About August, they begin travelling south to feeding grounds in the Antarctic, and pass through Leeuwin-Naturaliste waters from October to December, peaking in November. Mothers with newborn calves stay longest, and travel more slowly, enabling the calves to grow rapidly and develop a thicker layer of blubber for protection in the cold feeding waters they will soon be visiting for the first time.

Photo – Geoff Taylor/Lochman Transparencies

LIFE HISTORY: Humpbacks can consume nearly a tonne of food each day, filtering food from the water through hundreds of horny baleen plates hanging from their upper jaws. They feed on large concentrations of prey, such as krill. Calves are more than four metres long and weigh about two tonnes at birth. The suckling calf can gain more than 45 kilograms a day during the first few weeks of life. Nursing ends at about 11 months, when the calf can be up to nine metres long.

SOUTHERN RIGHT WHALE

(Eubalaena australis)

Southern right whales can often be seen by boaters, or sightseers watching from vantage points in the Leeuwin-Naturaliste National Park, during winter and spring. Southern right whales are about the size of a bus. They weigh up to 80 tonnes and may be 18 metres long. Despite their bulk, they are very agile and active, and their acrobatic antics can keep whale watchers entranced for hours. However, their commonest behaviour is lying around like logs at the surface.

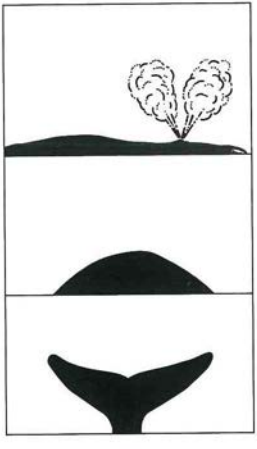
DESCRIPTION: Southern right whales are large and stocky. The large head comprises up to a quarter of the total body length, and the lower jawline is distinctively bowed. There is no dorsal fin, but they have broad, triangular and flat flippers. The twin blowholes produce a high, V-shaped blow. These mammals have horny growths called callosities on various parts of the head. The patterns formed by the callosities are different for each individual.

DISTRIBUTION: They inhabit the cooler latitudes, where they were once abundant. This species was the first large whale to be hunted by man, beginning in the tenth century off Japan. Later on, these gentle giants were sought after by whalers for their oil and baleen. In fact, they were called right whales because, in the days of open-boat whaling with hand harpoons they were the 'right' ones to catch. They were slow-swimming, floated when dead and yielded large amounts of valuable products. As a result of hunting, populations declined to dangerously low levels even before the end of the nineteenth century. Though it is now fast increasing, the population along the southern coast of Australia can still be counted in the hundreds, and the species is classed as endangered.

LIFE HISTORY: Southern right whales are baleen whales and feed on swarms of plankton. Most feeding is thought to occur in

Photo – Ann Storrie

the polar areas during summer, but they do not move as far south as humpbacks or other baleen whales. During summer, right whales prefer the open ocean, away from the coast, but during early winter and spring, the cows come in close to shore. There, near the surf line in sheltered bays, they give birth to their young, before returning to deeper waters as summer approaches. On average, they calve once every three years. Newborns are between four and a half to six metres long and weigh about one and a half tonnes.



CAPE TO CAPE WALK TRACK

The Cape to Cape Walk Track stretches through the national park for 140 kilometres from Cape Naturaliste to Cape Leeuwin. Walkers can embark on a hike of several days duration, or choose from a multitude of alternative shorter walks of varying distance and difficulty, beginning with walks of just a couple of hours.

The track is pleasantly challenging and takes walkers through breathtaking coastal scenery. Next time you are visiting the Leeuwin-Naturaliste area try one of the shorter Cape to Cape Walk Track sections for a different perspective on your holiday. Brochures for each of the five sections (each between 19 and 31 kilometres long) are available from the Department of Conservation and Land Management's *WA Naturally* information centre in Fremantle, from the Department's offices in Busselton and Margaret River or from tourist outlets for a nominal fee.

As well as coastal scenery, you can see rare Hamelin Bay mallees, found only between Hamelin Bay and Cape Freycinet, carpets of wildflowers and the 'bonsai' jarrah and marri trees pruned by gale-force winds. Depending on when you are walking, you can see kangaroos at Bob's Hollow, red-tailed tropicbirds when they come to nest on Sugarloaf Rock and migrating whales. The walk track has plenty of contrast, from sandy beaches to cliff top paths, to shady forest and rocky coast. Some sections will be hardened to allow wheelchair access.

The Cape to Cape Walk Track has attracted an enthusiastic Friends Group, which helps the Department maintain and upgrade the track. Groups are 'adopting' sections for maintenance purposes.

For further information contact CALM's Busselton District Office on (08) 9752 1677.

Photo – Chris Garnett/CALM

BUNKER BAY WALKTRAIL

This 2.5 kilometre, 1 to 1½ hour walk leads to the cliff edge, revealing breathtaking views of the coast.

1. Begin at the Bunker Bay car park and head north around Shelley Cove through a woodland of melaleucas.

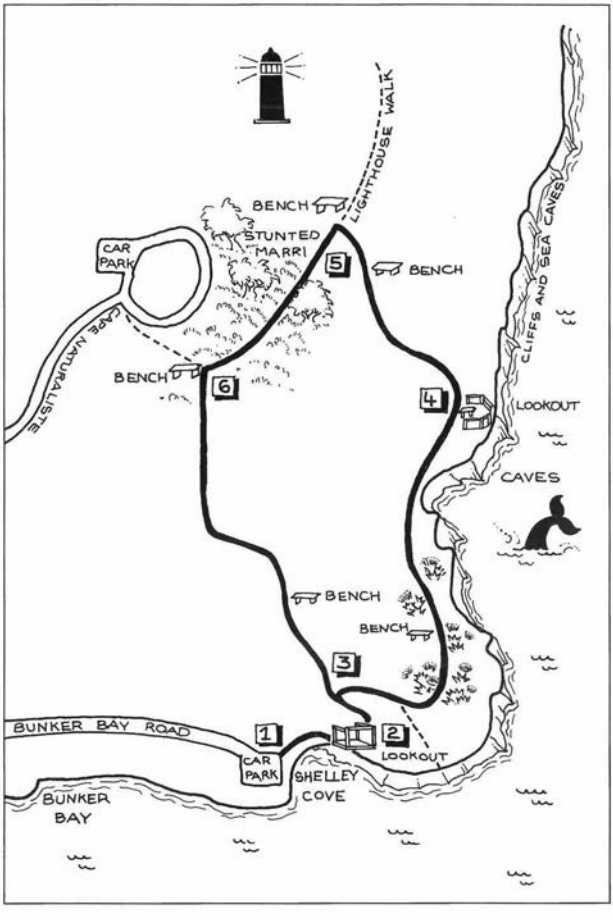
2. The viewing platform overlooking Shelley Cove provides distant views of Geographe Bay near Busselton. French explorer Nicholas Baudin landed in Geographe Bay in 1802, naming the bay and Cape Naturaliste after two of his ships. Sealers and whalers, mostly American, French and British, visited Australian shores in the early 1800s, but did not set up permanent settlements in WA.

3. About 100 metres up from the lookout, the track branches into two. Take the track to your right, which leads north and then east along the cliffs. The path is quite rocky, so take care. Stands of parrotbush (*Dryandra sessilis*), which has prickly fan-shaped leaves and cream or yellow flowers, grow along the path.

4. About 550 metres from where you turned off, a spur path leads to another lookout. It is a good place to see southern right whales, during winter and spring, and humpback whales, making their way south to Antarctic waters, from September to November. Both species were once hunted almost to extinction.

5. Head inland through coastal heath. In spring time colourful wildflowers abound. Turn left when you meet up with the lighthouse walk. (If you wish, turn right to loop around to the lighthouse and back to rejoin the Bunker Bay walk, adding a further 1.2 kilometres to the walk). The 20 metre high limestone lighthouse was built in 1903. Its powerful light can beam 48 kilometres out to sea on a clear night.

6. About 330 metres after joining the lighthouse walk, turn left (where the track again branches) to return to Shelley Cove and then the car park.



WHERE IS IT? 36 km from Busselton and 261 km from Perth.

FACILITIES: Tables, toilets, information.

CAPE NATURALISTE TRACK

The 3.2 kilometre Cape Naturaliste Track has breathtaking coastal views and travels through small limestone 'pinnacles' en route to a stunning whale lookout. Turn off Naturaliste Terrace Road onto West Coast Road, 500 metres before the lighthouse car park. Remain on the West Coast Road until you reach the northerly car park. It takes 1 to 1½ hours to complete.

1. From the car park, walk north along a dirt track.

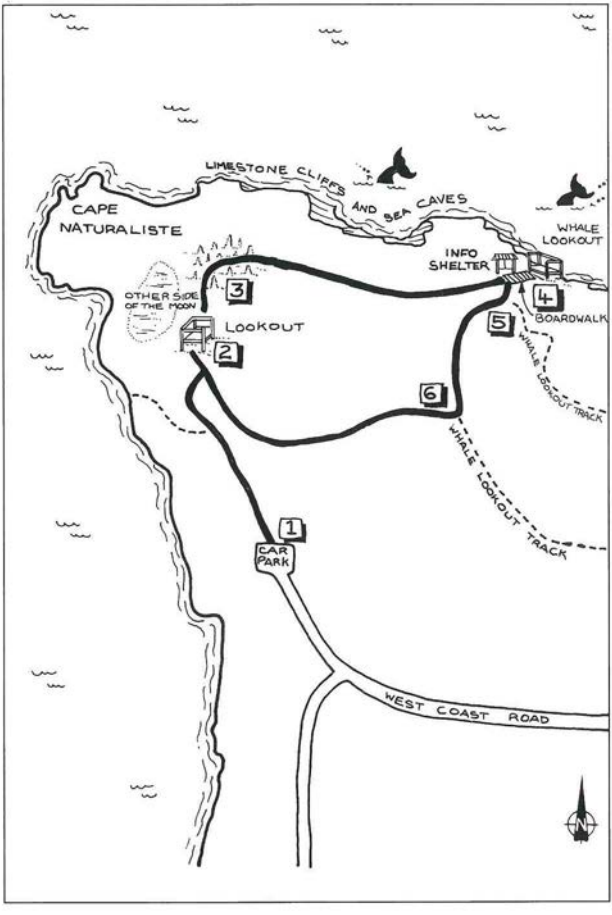
2. Passing a small track that leads to the coast, head to the Naturaliste Lookout. Immediately in front of you is a barren landscape known as 'The Other Side of the Moon'. Beyond it is Cape Naturaliste, named after the French ship that sailed up the WA coast in 1801. The Cape is the northernmost point of the park. To the south you can see Gull Rock and Sugarloaf Rock. On a windy day, the power of the Southern Ocean can be astounding.

3. The track continues through an area known as 'The Pinnacles', limestone projections in an area largely devoid of vegetation. Because of the rocky terrain the track is not well defined, so look carefully for markers to show the way.

4. Continue to the whale lookout over the high limestone cliffs. It is at the end of a long boardwalk. You may see southern right whales, during winter and spring, and humpback whales from September to November. Out of whale watching season, it provides panoramic views and the chance to spot birds living in the area.

5. Head inland, passing through diverse coastal heath.

6. When the track branches, take the route to the right. Another turn, just before you reach the lookout at point 2, returns to the car park.



WHERE IS IT? 36 km from Busselton and 261 km from Perth.

FACILITIES: Tables, toilets, information.

CANAL ROCKS TO WYADUP WALK

This four kilometre, two hour return walk is part of the 140 kilometre Cape to Cape Walk Track (see pages 40-41).

1. Begin at the car park on Canal Rocks Road.

2. Walk 200 metres to the Rotary Lookout, which has stunning views over Canal Rocks. It is thought that about 600 million years ago, the original granite rocks were subjected to a period of intense heat and pressure, causing changes in their structure and mineral composition, to form the metamorphic rock, granitic gneiss. The rocks became layered and folded, forming bands of varying hardness which tend to lie parallel to the present coastline. Bands of weaker rock have been eroded more easily by the sea, creating the spectacular canal formation. The Aboriginal name for the rock is Winjee Sam.

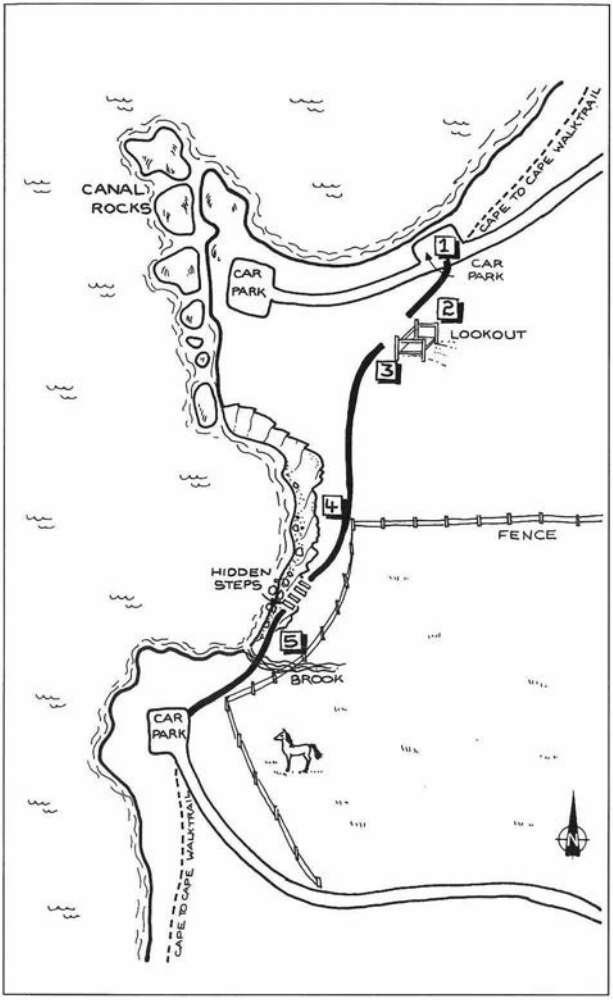
3. From the lookout, a narrow rock-strewn path continues upward over the Leeuwin-Naturaliste ridge, a geological formation of ancient granite, capped by limestone and sand dunes, which runs for the length of the park.

4. The path levels out, then descends, passing a fence. Very steep, well-hidden steps wind down to a boulder-strewn beach. To the north, there are sensational views of a cliff face, where erosion is eating into the ridge.

5. The path lies just above the edge of the beach. You soon cross a brook, then follow a paddock fence back to the Wyadup car park. On reaching Wyadup, you can either retrace your steps or have someone meet you with a car.

WHERE IS IT? 8 km from Yallingup or 14 km from Dunsborough.

FACILITIES: Toilets at nearby Canal Rocks.


CANAL ROCKS
CAR PARK
CAPE TO CAPE WALKTRAIL
1
CAR PARK
2
LOOKOUT
3
4
FENCE
HIDDEN STEPS
5
BROOK
CAR PARK
CAPE TO CAPE WALKTRAIL
N

MEEKADARABEE FALLS WALK

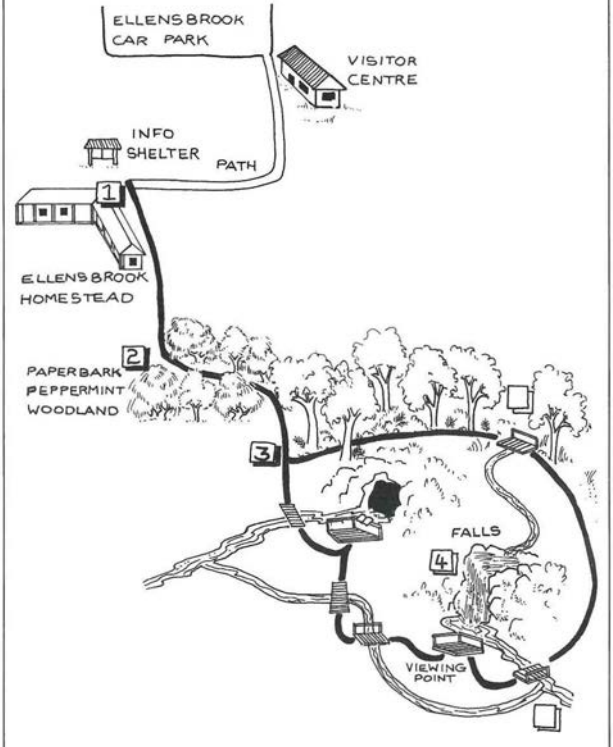
This easy, two kilometre, 40 minute walk takes visitors to Meekadarabee Falls, one of the lesser known, but surprisingly beautiful, attractions of the South-West. The trail and all facilities are accessible to disabled people.

1. The walktrail begins at Ellensbrook Homestead. Alfred Bussell arrived in Western Australia in 1830, and later pioneered the Margaret River area. In 1857 he built Ellensbrook out of crushed shell and limestone as a home for his new bride, Ellen. He and Ellen, who was just 16, set off from Busselton on their honeymoon through the then trackless scrub of the Leeuwin-Naturaliste Peninsula. Alfred led her to the site he had chosen for their homestead, at the mouth of a small stream about 25 kilometres south of Cape Naturaliste. They lived here until 1865, when they moved to Wallcliffe House at the mouth of the Margaret River. The family lived a meagre existence, which gradually improved as they managed to sell some of their produce and build onto their one-room hut. Two of the couple's children died as infants and were buried near Ellensbrook, along with a convict helper and Alfred's brother, Charles Bussell.

2. Paperbark and peppermint trees fringe the path en route to the cave. Between July and November, you may be able to see the small pink flowers of winged boronia (*Boronia alata*) growing near the path's edge. It can be recognised by its four pointed petals and glossy green leaves.

3. As you approach the waterfall, the vegetation changes abruptly to taller jarrah trees with a cool, moist understorey of ferns and other water-loving plants. A boardwalk has been built to protect the site.

4. Information panels at the small waterfall tell the story of Meekadarabee. According to local Aboriginal people, a girl called Mitanne would spend her time exploring caves and strange


ELLENSBROOK
CAR PARK
VISITOR
CENTRE
INFO
SHELTER
PATH
1
ELLENSBROOK
HOMESTEAD
2
PAPERBARK
PEPPERMINT
WOODLAND
3
FALLS
4
VIEWING
POINT

places. Sometimes a boy called Nobel would accompany her. One evening Mitanne hurried back to camp and told her mother she had found Meekadarabee, the Moon's bathing place. Her grandmother was angry, as to gaze upon Meeka in the water brings death and sorrow. Mitanne had been promised to a tribal elder, but eloped with Nobel. They lived happily at Meekadarrabee, hunting at night to avoid being found. The elder sent warriors to find Nobel and kill him. One night he stayed out hunting much longer than usual and Mitanne found him speared through the body. He died in her arms. She was taken back to the elder and forced to do all the hard work around camp until she collapsed and died.

5. The offshoot path just before the waterfall takes you to the spring behind it. After Mitanne died, the spirit of Nobel was waiting for her in the peppermint trees. They made their way to this cave and it is said that their spirits still reside here. You can see where the stream disappears into the limestone rock, which it filters through to create the waterfall on the other side.

6. A small wooden bridge takes you back over the stream to loop back to the original path. Retrace your steps to return to the homestead.

WHERE IS IT? The turn-off to Ellensbrook Homestead, off Caves Road, is 30 km from Yallingup or 9 km from Margaret River. It lies a further 4 km along Ellensbrook Road.

TRAVELLING TIME: 20 minutes from Yallingup or 10 minutes from Margaret River.

FACILITIES: Toilets, information, historic homestead managed by CALM on behalf of the National Trust.

BEST SEASON: Winter and spring, when the falls are in full flow.

Photo – Jiri Lochman

Above: *Meekadarabee Falls*

Below: *Winged boronia*

Photo – Marie Lochman

HAMELIN BAY TO COSY CORNER WALK

This 6.5 kilometre half day walk has magnificent views. It involves some easy scrambling and negotiating short, steep sections. Organise a car to meet you, or return along the beach to complete a 13 kilometre circuit. The trail is part of the 140 kilometre Cape to Cape Walk Track (see pages 40-41).

1. Begin at the boat ramp in Hamelin Bay. Named after Captain Hamelin, commander of the French corvette *Naturaliste*, Hamelin Bay was a thriving port during the timber era of the 1890s. The jetty was built in 1882 and extended in 1898. Today, Hamelin Bay is a popular swimming and fishing beach with a caravan park where the timber yards once stood.

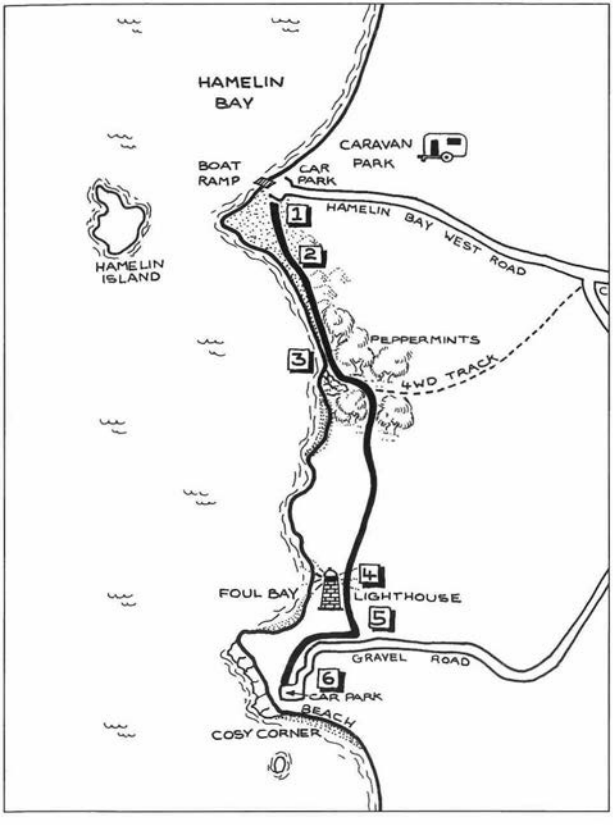
2. From the boat ramp, the track crosses the bare headland then follows the beach for one kilometre. Do not walk near the edge, as cliffs in this area can be fragile.

3. Just before a rocky limestone outcrop, look for the markers and steps heading off the beach. Pick up a four-wheel-drive track which leads through peppermint (*Agonis flexuosa*) woodland inland for half a kilometre. Take care not to miss the turn-off, which heads south to climb up to the Foul Bay lighthouse.

4. The lighthouse is 3.9 metres high and is fully operational. From this vantage point, there are superb views back to Hamelin Island, where the original lighthouse was established back in 1937. It was powered by acetylene, hauled across in cylinders via an aerial cableway, and the remains of the brick structure and gantry can still be seen on the island. In 1967 the light was moved to this much higher position, 80 metres above sea level.

5. The trail reaches the Cosy Corner Road, following it to the Cosy Corner car park.

6. Cosy Corner is known for its white sandy beach, red granitic



headlands and limestone islands. A sanctuary for thousands of seabirds, the islands are remnants from a period when the sea level was much lower and the dunes extended out into the bay.

WHERE IS IT? 19 km from Augusta and 309 km from Perth.

FACILITIES: Toilets, boat ramp, commercial caravan park.

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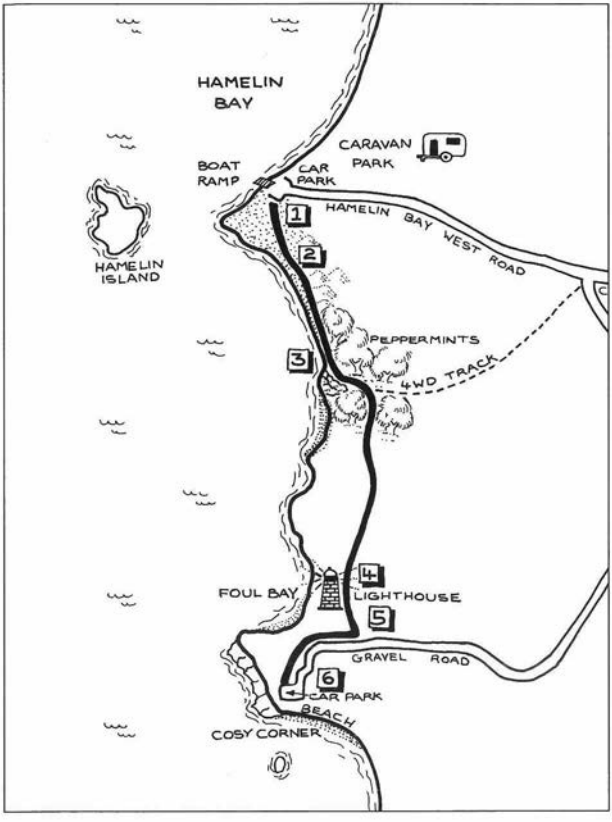
6. Cosy Corner is known for its white sandy beach, red granitic



headlands and limestone islands. A sanctuary for thousands of seabirds, the islands are remnants from a period when the sea level was much lower and the dunes extended out into the bay.

WHERE IS IT? 19 km from Augusta and 309 km from Perth.

FACILITIES: Toilets, boat ramp, commercial caravan park.

WATER WHEEL TO SKIPPY ROCK WALK

This short, three kilometre, one hour walk takes in beach, rocks and bush. It is part of the 140 kilometre Cape to Cape Walk Track. The grades are easy. You can combine this walk with a visit to the Cape Leeuwin Lighthouse, which is open for daily tours.

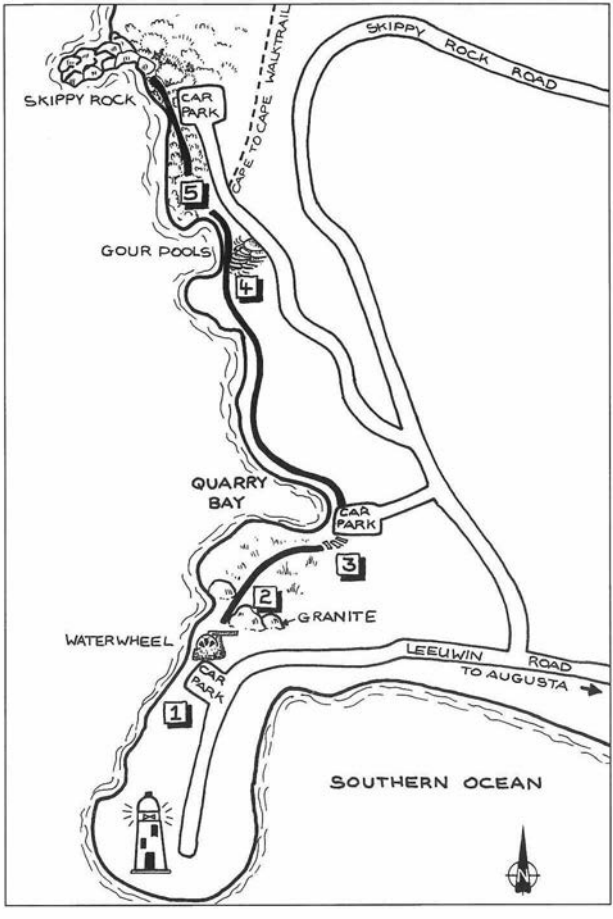
1. Begin at the Leeuwin Waterwheel, near the Cape Leeuwin Lighthouse in Augusta. It was built to power a hydraulic ram, which would pump water from the nearby swamp to supply the lighthouse (built by Maurice Coleman Davies in 1896) and keepers' cottages. It quickly became encrusted with a coating of limestone and is now frozen in rock.

2. Head north over some massive granite domes, through low grass and heath at the southern end of Quarry Bay.

3. Before climbing the steps to the car park, take a look at the southern end of the bay. Here, limestone was hewn for the blocks used to build the Cape Leeuwin Lighthouse. The many small chips of stone which can be found at the base of the cliff, residue from this quarrying activity, are already well cemented together after only 100 years.

4. Continue in a north-easterly direction. The path follows flat granite rocks, where you may be able to see sooty oystercatchers foraging for shellfish. Numerous seepages from beneath the limestone have built up tiers of beautiful rimstone, or 'gour' pools which spill out onto the granite. Late winter to spring is a good time to explore here, when there is plenty of running water. However, be careful of slippery rocks.

5. After reaching a small, shelly beach, the path heads up through dense coastal vegetation to the road into Skippy Rock. There is a pleasant rest area in a grove of shady peppermint (*Agonis flexuosa*) trees. After reaching Skippy Rock, you can either retrace your steps or ask someone to pick you up.



WHERE IS IT? The walk begins at Cape Leeuwin, Augusta.

FACILITIES: Car parks, water.

BORANUP SCENIC DRIVE

Boranup Forest, within the Leeuwin-Naturaliste National Park, lies between Caves Road and the coast, and creates a powerful contrast with the rest of the coastline. Pale-barked karri trees, reaching heights of 60 metres or more, dominate the slopes and valleys. Gravel roads wind through the forest to picnic and camping spots.

1. 0 km Begin at the information shelter a little way in from the intersection of Caves Road and the southern end of Boranup Drive (reset your trip meter). The vegetation around the shelter is of marri, jarrah, peppermint, wattle, native wisteria, bracken fern and banksia. Boranup is a regrowth forest. Just over 115 years old, Boranup has a fascinating history of timber cutting to relate from last century (see pages 18-21).

2. 1.4 km Boranup Camping Area is comprised of 12 or so camping sites under shady peppermints. Soapbush (*Trymalium floribundum*) grows in the nearby understorey. When the leaves are used to scrub the hands they produce a lather similar to soap.

3. 2.5 km A short walk leads to Boranup Lookout, which gives sweeping views over the forest and coast west to Hamelin Bay. Picnic shelters, toilets and wood barbecues are provided. White clematis (*Clematis pubescens*) clambers over nearby shrubs.

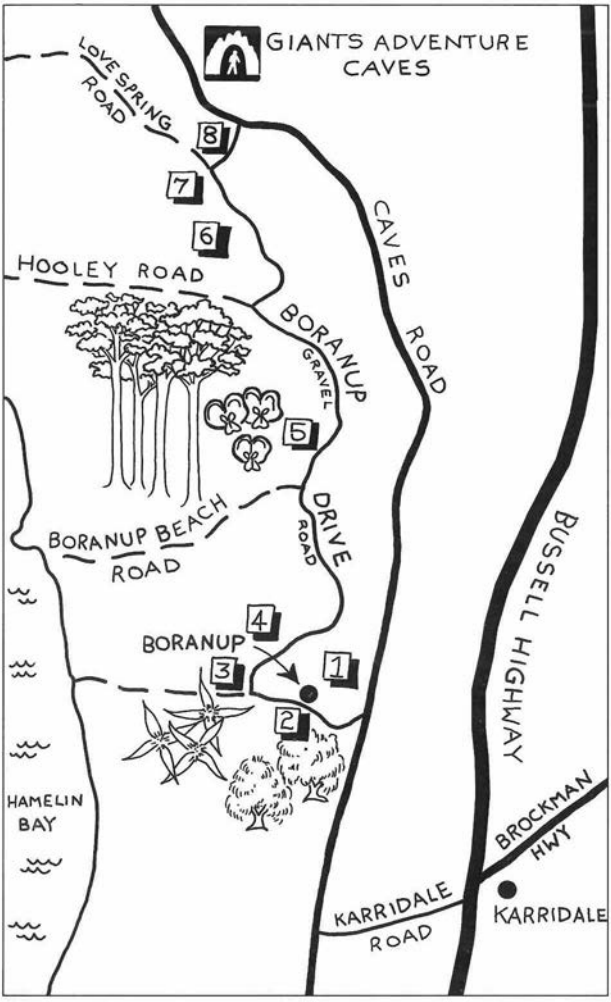
4. 3.3 km Cross another track. The road descends.

5. 7.2 km Very tall karri grows around a diverging track, Aidor Road. The coral pea (*Kennedia coccinea*), a creeper with masses of beautiful pinkish-orange flowers, grows in the understory.

6. 12.2 km Cross Donovon Road.

7. 14.1 km A fishing symbol and a lookout symbol indicate the route to Point Road camping area via Lovespring Road.

8. 14.2 km A second information bay marks the end of Boranup Scenic Drive.


GIANTS ADVENTURE CAVES
LOVE SPRING ROAD
8
7
6
HOOLEY ROAD
BORANUP GRAVEL
CAVES ROAD
5
BORANUP BEACH ROAD
DRIVE ROAD
4
BORANUP
3
1
2
HAMELIN BAY
BUSSELL HIGHWAY
BROCKMAN HWY
KARRIDALE ROAD
KARRIDALE

PROPOSED CAPES MARINE PARK

Part of the waters of Geographe Bay and the waters offshore from the Leeuwin-Naturaliste National Park contain a wealth of colourful marine plants and animals. These waters have been proposed as a marine park. Such a park would protect two very distinctive coastal types with outstanding recreational value, and a wide range of marine habitats with very high conservation values.

Geographe Bay is known for its sheltered shores with high quality beaches and very clear water, providing safe family swimming and water sports. Especially in the lee of Cape Naturaliste, there is some spectacular underwater scenery and prolific growth of tropical corals close to shore. In Eagle Bay, for instance, several dome-shaped *Turbinaria* corals, three to four metres high, provide a spectacle for scuba divers. The seagrass meadows of Geographe Bay are the most extensive on the west coast, apart from those at Shark Bay.

Low limestone ridges parallel to the shore rise about a metre from the seabed of Geographe Bay. One of these, the Geographe Bay ridge, roughly coincides with the 15 metre contour and is a magnificent dive. As well as prolific sponges and some hard, gorgonian and soft corals, the ridge is populated with giant cuttlefish, stingrays, six-banded sea perches that often sit in cup sponges, harlequin fish, WA jewfish, samsonfish and wobbegongs. The occasional knightfish, which looks a little like a pineapple, hides under the ledges.

The exposed waters between Cape Naturaliste and Cape Leeuwin have a very different character. The granites and gniesses have been eroded by the sea to form sloping rock faces on exposed headlands and rounded boulder fields in more sheltered situations. Beaches of coarse sand stretch between the headlands. In several places, limestone cliffs plunge into the ocean.

Above: *Soft corals*

Below: *Harlequin fish*

Photos – Ann Storrie

At Hamelin Bay, Cosy Corner and Flinders Bay there are magnificent limestone reefs riddled with caves, swimthroughs, ledges and drop-offs. Bombies are crammed with marine life such as blue groper, Port Jackson sharks, harlequin fish, schooling fish, colourful reef fish and much more, plus a wealth of colourful invertebrates.

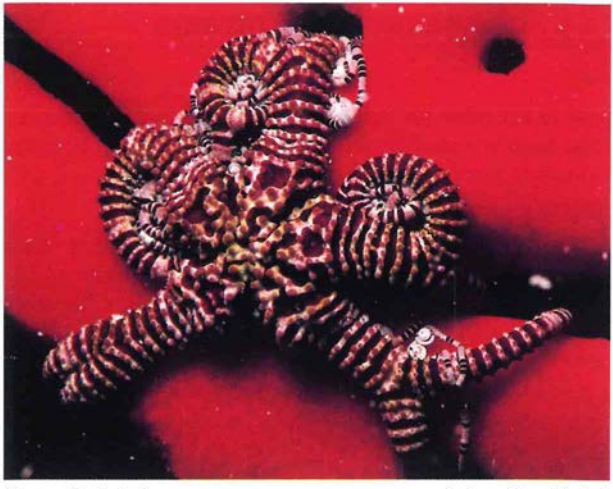
DIVING AND SNORKELLING

The beautiful, sheltered bays of Meelup, Eagle Bay and Bunker Bay lie north-west from Dunsborough and provide protected areas for safe snorkelling. The diversity of colourful fish found here is surprising. Cuttlefish and western blue devils lurk under ledges, while a blaze of sponges, soft corals and other marine life coats the submerged rocks.

Further offshore, the 2750 tonne, 140 metre long *HMAS Swan* lies in 30 metres of clear water and has become a magnet for scuba divers. The navigation and antennae tower is about eight metres below the surface, with the upper deck at about 15 metres. The Geographe Bay Artificial Reef Society cleaned *HMAS Swan* thoroughly before it was sunk to prevent oil, silt or debris hampering divers when the vessel was scuttled in December 1997. A permit is required for privately owned and commercial boats to take divers to the scuttled ship. The best way to see *HMAS Swan* is by means of a dive charter. Local dive shops offer charters to see the outside of the ship, while an Advanced Wreck Dive Course can be completed to enable more experienced divers to explore inside the ship.

Nearer to Margaret River, in the right weather conditions, there are some enjoyable and safe places to snorkel, such as at Prevelly and Gnarabup. Kilcarnup offers excellent diving but can only be reached by four-wheel-drive.

If you are planning to dive or snorkel in the Capes area it is recommended that you purchase CALM's book, *Dive and Snorkel Sites in Western Australia*, which will suggest a number of possible sites, accessible from either the shore or a boat. This is wild and rugged coastline, however, and you have to pick your time. Choose your dive site carefully, depending on your level of ability and the weather conditions, and take all of the appropriate safety precautions.



Above: *Basket star*

Below: *A cuttlefish*

Photos – Ann Storrie

GANNET ROCK SNORKEL

HOW TO GET THERE: An unsealed track off the Eagle Bay-Meelup Road leads to a small parking area. Gannet Rock is an 80 metre swim from shore.

DEPTH: 3-4 metres.

Gannet Rock is an enjoyable snorkel site close to shore with diverse and interesting marine life. It is also an easy scuba dive, suitable for novices. It is protected in almost all weather conditions, with virtually no current. You may also see southern right whales in the shallows from August to November.

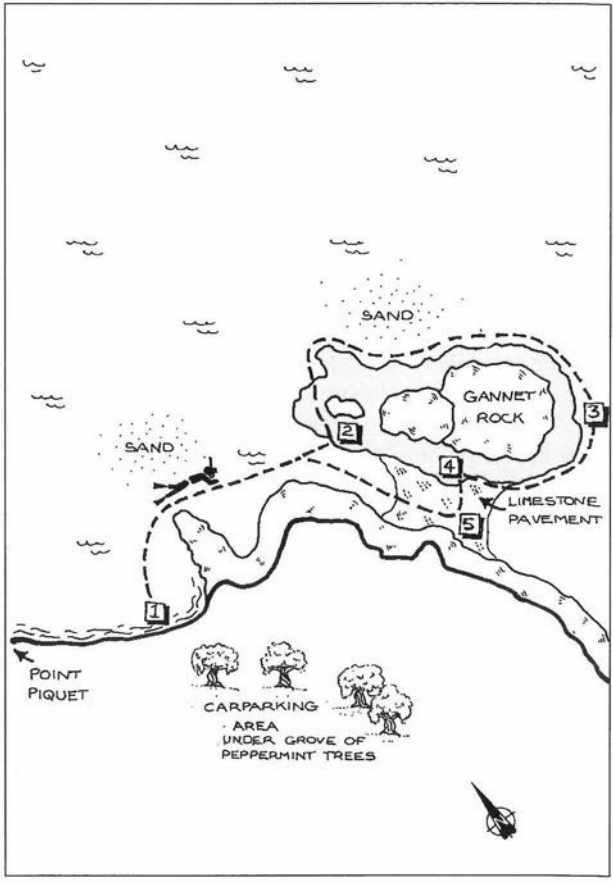
1. The best entry point is from the beach, from which Gannet Rock is an easy 80 metre swim. Give the anglers who often use the nearby rock a wide berth.

2. The part of the rock nearest the beach has some interesting lumps and ledges. Old wives, named for their habit of 'grunting like an old wife' when caught, are common. There are also many species of colourful wrasse and schooling fish such as herring and whiting.

3. This is an interesting area to explore ledges and lumps inhabited by white-barred boxfish, wrasse, common scalyfin and many more fish species. Invertebrates include sea urchins, molluscs, sponges and cuttlefish. Sea cucumbers can be seen on the sea floor. These creatures ingest and then pass out large quantities of sand, removing the organic particles.

4. A swimthrough on the shoreward side of the rock shelters a number of fish and invertebrate species. It is narrow and best examined from outside.

5. Between Gannet Rock and the mainland is a section of limestone pavement. A ledge along the rocks that fringe the mainland continues for some distance and is inhabited by dusky morwong and other fish.



CAUTION AREAS: Swimming into caverns and under ledges can be hazardous.

DEGREE OF DIFFICULTY: Easy.

COSY CORNER DIVE

HOW TO GET THERE: The turn-off to Cosy Corner is along Caves Road, 11 kilometres from the Bussell Highway.

DEPTH: 7 metres.

Cosy Corner has a number of small islands surrounded by reef. The best way to dive the area is by taking a small boat from Hamelin Bay and anchoring on one of the sandy sheltered areas alongside the islands. Closer to the shore is the reef platform shown here. If you don't have a boat this is an excellent scuba dive. However, the area can be hazardous and you should only dive it in the right conditions. Entry is from the beach and the reef is an easy swim from shore. The main problem is carrying heavy scuba equipment down the steep hill from the car park. Because of the number of boats that use the area it is very important to advertise your presence with a dive flag.

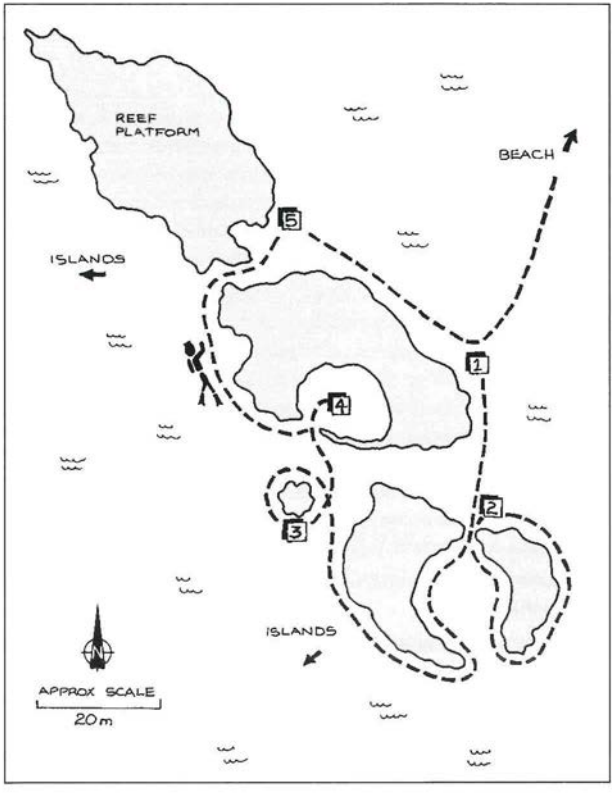
1. Swim to the large reef platform not far from the beach. It is riddled with caves and overhangs along its edge, inhabited by scalyfin, western blue devils, red-lipped morwong, western foxfish, cuttlefish, eagle rays and harlequin fish.

2. The section of reef platform furthermost from shore has a large hole carved in it by the sea and has separated into two distinct sections. Swim through the gap and around the smaller section and then swim around the larger section of reef.

3. Circumnavigate the small lump on the seaward side of the reef platform.

4. Returning to the middle reef, you will notice another large round hole eroded by the ocean, then you can continue exploring the seaward side of the reef. You may see pike, zebrafish, bronze bullseyes, skipjack trevally, goatfish, herring and banded sweep.

5. Dusky morwong, samsonfish and breaksea cod inhabit



another large lump close to shore. On your return to shore, you may encounter bottlenose dolphins, which sometimes chase fish in the shallows.

CAUTION AREAS: Swimming into caverns and under ledges can be hazardous.

DEGREE OF DIFFICULTY: Moderate, depending on the conditions.

SURFING

The Leeuwin-Naturaliste area is a world renowned surfing destination, and many of the most popular and highest quality waves lie offshore from the Leeuwin-Naturaliste National Park. The unique coastal granite bedrock and wind-blown limestone reefs combine with strong south-west ground swells to produce surf breaks of a quality and consistency unmatched anywhere else in Australia. The area is also remarkable for its diversity of breaks, from beginner's waves such as Huzzas in Cowaramup Bay to the famous Surfers Point at Margaret River, enough to challenge the bravest of surfers.

Many of the more remote surfing areas in the park are reached via secluded gravel tracks, followed by a thigh-testing soft sand beach walk. Some of the best breaks include Yallingup Reef, Smiths Beach, Super Tubes, Three Bears, Cowaramup Bay, Left Handers, Honeycombs, Windmills and Ellensbrook. Many of the breaks have interesting and often well-deserved names. Just don't put too much thought into how Gallows and Guillotines were named!

Summer and autumn are the most consistent times of year for surfing, with morning offshore winds and warm sunny days. Winter and spring are often plagued by huge messy swells and howling onshore winds for weeks at a time. The whole area comes alive each year in April, when the Association of Surfing Professionals holds the Margaret River Masters surfing competition. The competition attracts many of the world's best surfers to the waters off Surfers Point, where waves up to five metres are not uncommon.

The national park also contains many fine beach breaks, such as Contos and Boranup, which are suitable for beginners on the smaller days. However, those starting out should be warned that the waters of this ocean are often very rough, and

Photo – Brett Dennis/Lochman Transparencies

dangerous rips and currents are an ever-present hazard. Surf coaching lessons and board and wetsuit hire are both available locally, as is a range of surf hardware. There are numerous maps and surfing publications available that give more detailed accounts of all the different surfing breaks and the best conditions in which to catch them 'firing'!

CAMPING

There are three campgrounds within Leeuwin-Naturaliste National Park, at Conto, Point Road and Boranup. Sites are available on a first come, first served basis and no bookings are available. There are only basic facilities such as barbecues, firewood, toilets and tables. At Conto campground there is also water. There are no powered sites or showers.

CONTO CAMPGROUND: Turn down Conto Road from Caves Road. Set among peppermint woodlands that protect campers from the strong, offshore winds, the campground offers secluded sites for individuals and families, and larger areas for groups. Facilities include toilets, barbecues and tables. Open areas provide space for kite flying and team games such as football, cricket and netball. Campground hosts are sometimes available to look after visitors on weekends and public holidays, providing security and information to campers. Firewood is supplied from a central wood bin to discourage campers from gathering fallen timber, which provides shelter to native animals. Rainwater is supplied from two central taps, but is in limited supply and campers should keep use to a minimum. Bins are not provided in the campground all year round and campers are asked to take all their rubbish with them and dispose of it later if a bulk hopper is not available.

POINT ROAD CAMPGROUND: Head down Conto Road to the coast and drive away from the coast along Point Road. Facilities include toilets, barbecues, tables and individual sites.

BORANUP CAMPGROUND: Off the southern end of Boranup Drive. Facilities include barbecues, toilets and individual sites.

Camping fees are charged at all sites in the park. The money collected is used to help maintain and improve facilities.

Opposite: *Conto campground*

Photo – Chris Garnett/CALM

FISHING

Leeuwin-Naturaliste National Park offers a wide range of fishing experiences. Most fishing is done from beaches or rocks (but take great care). If you intend to fish, you should first contact the Fisheries Department for information on daily bag limits, minimum legal sizes and other regulations. If you catch fish that you do not intend to keep, please return them to the ocean as soon as possible with minimal handling, to give them the maximum chance of survival. Handle fish with wet hands to minimise damage to the protective coating that all fish have.

Tracks to the more isolated fishing spots on the coast are often suitable only for four-wheel-drives, because of the rough limestone that protrudes from the road surfaces.

BEACH FISHING: Between May and June, huge schools of salmon head north up the coast on their annual spawning run. The salmon, weighing between four and eight kilograms, are keenly sought by anglers using either lures or bait. Herring, skippy, tailor, whiting, flathead, shark, mulloway and occasionally snapper can also be caught from the beach. Suggested baits are white and blue bait, mulies, rock crabs, strips of fish, octopus and coral prawns.

BOAT FISHING: The unprotected oceans of the Leeuwin-Naturaliste coast are unpredictable and dangerous. Sudden weather changes can whip up rough waves and heavy swells very quickly. Dhufish, snapper, queen snapper, shark, salmon, skippy, herring and whiting are commonly targeted. Baits include squid, small whole fish, mulies, white or blue bait.

INLET AND RIVER FISHING: People can also enjoy fishing in the Blackwood River and estuary. An incoming tide can be very productive when inlet fishing. Popular bait includes river prawns and shrimp, octopus, white or blue bait, cockles, rock crabs and chunks of mulies coated in tuna oil and pollard.

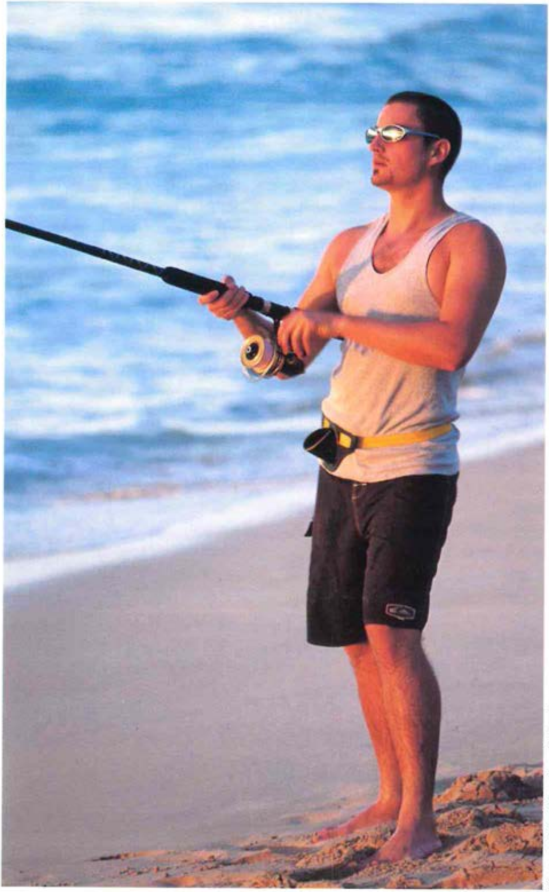


Photo – John Kleczkowski/Lochman Transparencies

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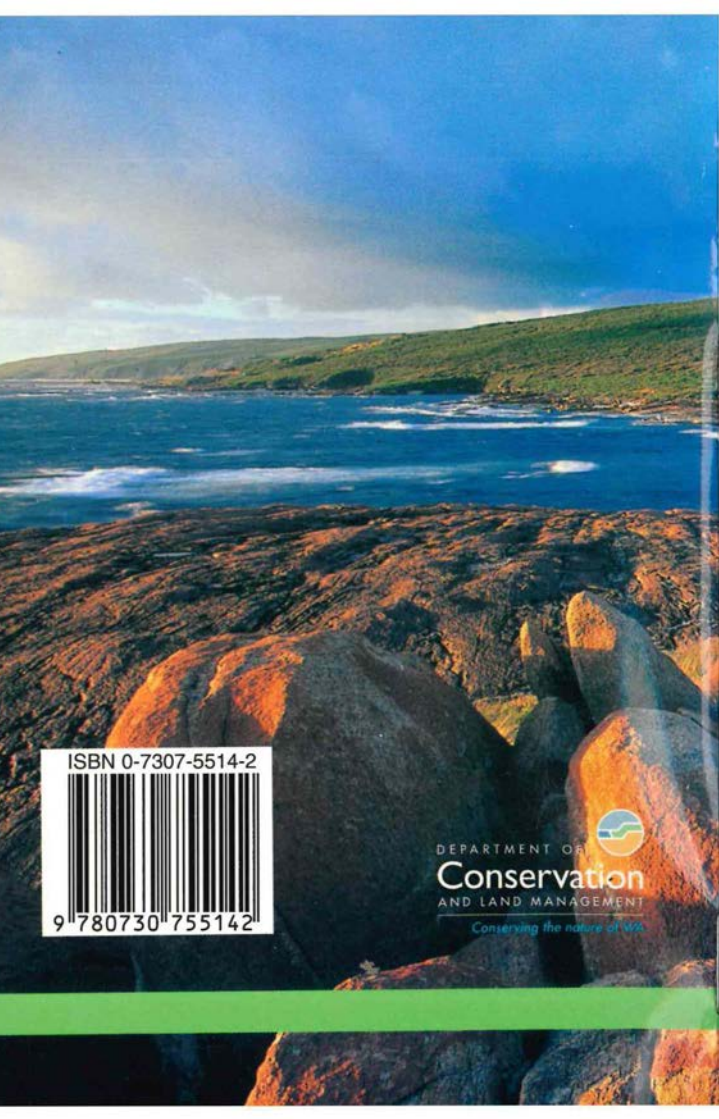
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