KENNEDY RANGE

NATIONAL PARK

JUST NORTH OF GASCOYNE JUNCTION, IN THE HARSH AND UNFORGIVING INTERIOR OF THE STATE'S NORTH-WEST, LIE THE SPECTACULAR SANDSTONE BATTLEMENTS OF THE KENNEDY RANGE. THIS HUGE MESA, PUSHED UP FROM AN ANCIENT SEABED, HAS DOMINATED THE SURROUNDING PLAINS FOR MILLIONS OF YEARS. ITS COMPLEX GEOLOGY MAKES IT ONE OF THE MOST SCENIC ATTRACTIONS OF THE REGION, AND SINCE IT WAS MADE A NATIONAL PARK, MORE PEOPLE HAVE BEEN FINDING OUT WHAT IT HAS TO OFFER.

BY DAVID GOUGH AND RON SHEPHERD

The Kennedy Range is an eroded plateau situated about 800 kilometres north of Perth and 150 kilometres east of Carnarvon on the rim of the Gascoyne River catchment. It is between 10 and 25 kilometres wide and extends for roughly 195 kilometres in a northerly direction from near Gascoyne Junction. The Kennedy Range National Park, which covers an area of 141 660 hectares, was gazetted on 8 January 1993 and is in one of the fastest growing tourist areas in the Gascoyne. It offers spectacular scenery of gorges and precipitous faces, with a vast plateau of ancient dunefields on top of the range. The area still retains a wilderness feeling, and camping beneath the stark sandstone cliffs is an experience not to be missed.

The general area is classified as hot arid desert, with warm winters and hot summers. The average annual rainfall recorded at nearby Lyons River Station is 210 mm, with the highest monthly average of 34 mm in February and the lowest in September. January is the hottest month, with an average maximum temperature of 40.6°C recorded at Gascoyne Junction, so the area is best visited between April and November.

NATURAL HISTORY

In Permian times, some 250 million years ago, the Gascoyne region was a shallow ocean basin off the edge of the ancient Australian continent. It filled with sediment, which later became compressed to form layers of sandstone and shale. Movements in the Earth's crust brought these layers above the sea level, where erosion has stripped away much of the rock. Today, marine fossils can be found in the range's sandstone strata.

The Kennedy Range is a remnant of the land surface that elsewhere has been worn away, but here forms a huge mesa. The southern and eastern sides of the range have eroded to form spectacular cliffs rising up 100 metres or so above the Lyons River valley. The cliffs are dissected by a maze of steep-sided canyons, which have running streams after rain. A few small pools remain for several months after rain, and the deepest may be permanent. Along the western side of the range is a strong fault system, and springs are common here along the base of the range.

Seemingly endless rows of waterless red sand dunes, dominated by spinifex with scattered wattle, mallee and other small shrubs, are found on the mesa. Sand forming the dunefield has been weathered from the underlying sandstone, and the dunes themselves may have been formed about 15 000 years ago, during the last major arid period in Western Australia. Swales are 100 to 500 metres wide, occasionally up to a kilometre, and are stabilised by the vegetation. In places, the dunes rise up to 18 metres above the

Previous page
Main: The eastern scarp of the Kennedy Range rises majestically from the mulga plain.
Inset: Sandstone.
Photos – Bill Bachman

Below: Aerial view of the range showing the gorges and access roads to the visitor sites.
Photo – Marie Lochman

swale and have slopes up to 20 degrees. Most of the upper parts of the dunes are unstabilised, but sand movement by wind appears to be confined to swirling around perennial woody shrubs.

This huge mesa remains much the same today as it would have been when Aborigines first crossed it, thousands of years ago.

ABORIGINAL HISTORY

Like Mount Augustus (see *LANDSCOPE*, Winter 1995), the Kennedy Range appeared to separate the traditional lands of two Aboriginal tribes. According to Tindale (*Aboriginal Tribes of Australia*, 1965, 1974), the range formed the boundary between the Maia tribe to the west of the range and the Malgaru tribe to the east.

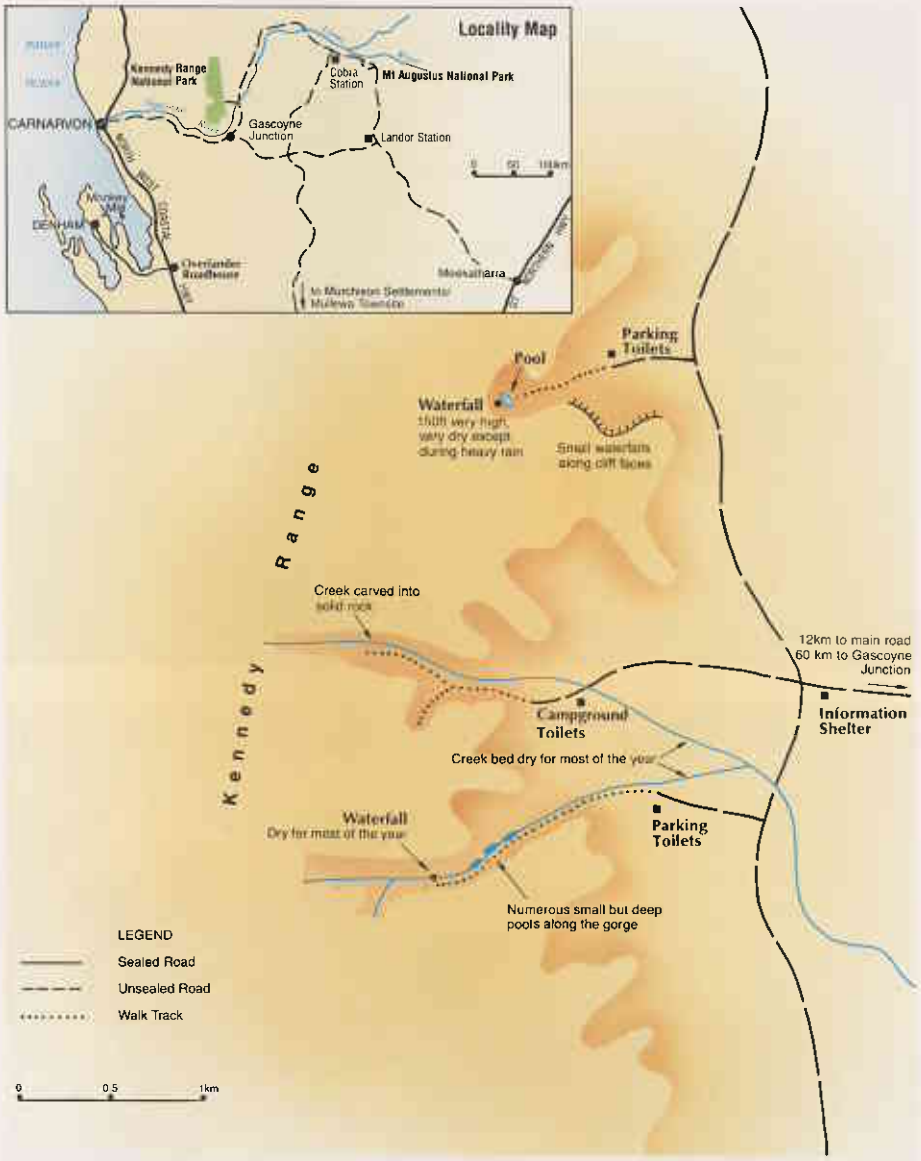
The Maia people occupied an area of about 12 000 square kilometres from just north of Carnarvon to the western slopes of the Kennedy Range. The freshwater springs on this side of the range support abundant wildlife and would have been a source of food and water for the Maia people.

The Malgaru's tribal lands covered a similarly large area, stretching from the eastern escarpment of the range, across the Lyons River (known to Aborigines as *Mithering*) and east to the boundary with the Wadjari tribe—near the Gascoyne River, around Mooloo Downs and Yinnetharra.

The Aboriginal history of the range itself is largely unrecorded, but occupation sites exist around and within the range. Outcrops of chert found in the area are ideal for stone tool making, and a large number of artefact scatters near the freshwater springs on the western side provide additional evidence of occupation by Aboriginal people in the 20 000 or so years before European settlement.

The Aboriginal Affairs Department has recorded almost 100 sites on and around the range. Most are archaeological sites, but a number of them are of ceremonial or mythological importance.

Such sites include a march fly *talu* site—a site where special ceremonies are conducted to increase the numbers of a particular species—and a mythological site in a most inaccessible part of the dunefield in the centre of the range. Engravings in the southernmost gorge of the visitor area are heavily weathered, and it is difficult to decipher them.



STATION HISTORY

The freshwater springs and permanent pools that were so important to the local Aboriginal tribes also attracted pastoralists in the late 1800s.

In 1858, an expedition into the Gascoyne Region, led by Francis Thomas Gregory, reached the Kennedy Range on 12 May. The range was subsequently named in honour of the then Governor of Western Australia, Arthur Edward Kennedy, and the Lyons River, which runs along much of the eastern side of the range, presumably in honour of the British admiral and diplomat Lord Edmond Lyons. Gregory's expedition continued to Mt Augustus before returning to Perth via Mt Gould, the Murchison and Irwin rivers, Dandaragan and Toodyay.

In his report of the expedition to the Surveyor General, Gregory stated:

> "With regard to the quantity and distribution of the available lands, it will only be necessary to observe that, with the exception of 30,000 or 40,000 acres at the mouth of the Gascoyne, there is no land worth occupying for many years to come west of the Lyons River; the amount of land on this river has already been estimated at nearly 300 square miles, while on the Upper Gascoyne and its tributaries there is probably double that quantity; this, with the lands on the Murchison near Mount Hale, would make a total of about a million acres.
>
> "A very important circumstance in connection with this district is the total absence, so far as we were able to observe, of any of the varieties of *Gastrolobium* or *Euphorbia*, which constitute the poisonous plants so fatal to cattle and sheep in other parts of the colony."

Perhaps it was this last point, rather than his earlier comments, that led to the fact that within 20 years of Gregory's expedition, pastoral leases were taken up along both the Gascoyne and Lyons rivers, and the region rapidly developed into a prosperous wool-producing area.

Gregory also suggested in his report that another expedition be mounted to the area at a different time of year, but this was not immediately undertaken. Author Rhonda McDonald, in her book *Winning the Gascoyne*, takes up this point:

> "In 1872 Charles Brockman had just returned from an exploratory trip to the Mount Magnet area, when he met Mr J. B. Ridley. Mr Ridley expressed surprise that no one had followed up Gregory's report of the Gascoyne River."

Four years later, Brockman set off for the West Gascoyne with Mr Charles Fane. In 1877, he established Boolathana Station, just north of the mouth of the Gascoyne River. Jimba Jimba Station, at the junction of the Gascoyne and Lyons Rivers south of the Kennedy Range, was taken up in 1878 and from then on, as people ventured further inland, stations sprang up throughout the area along the Lyons River.

Lyons River Station was first taken up in the 1880s by George Hammersley and Thomas Simms, but little development was done. However, when William Hatch purchased the lease in 1906, he and his family began developing the property and obtained additional land. During the intervening years, the station experienced good times with sheep numbers increasing, and by 1911 it had a new shearing shed with the most up-to-date machinery available. The owners continued to lead the technological revolution in the area when they purchased a motor vehicle in 1916 and had the region's first telephone line installed in 1919. But communication was often severed for many weeks during the rainy season, when the Lyons and Gascoyne rivers swelled and swept away the line and poles in many places.

The only other station on the eastern edge of the range is Mt Sandiman. This is currently being run as a tourist venture offering a range of station-stay accommodation and tours. It is owned and by the Fraser family, who also own Minnie Creek Station farther north.

Above left: Calytrix brevifolia is one of the shrubland plants found on the dune ridges.
Photo – Jiri Lochman

Left: A little red kaluta pauses as it feeds on nectar from an Ashby's banksia flower.
Photo – Jiri Lochman

High numbers of sheep grazed the area around the Kennedy Range until the late 1930s, when drought, depression and overgrazing caused many businesses to crash. Even now, much of the land surrounding the range has not recovered from some of the worst degradation in the State to be caused by early pastoral activity. Fortunately, because the top of the range is virtually waterless, it was only lightly grazed and, even though there has been mineral exploration, it remains relatively unscathed.

MINERAL EXPLORATION

The Kennedy Range was explored for its mineral potential as early as 1861 by an expedition led by Augustus Charles Gregory, brother of Francis Thomas Gregory. Subsequent expeditions, in 1883 by W H Huddleston and 1901 by A G Maitland, also looked at the area's potential for mining.

Interest in the hydrocarbon potential of the Carnarvon Basin began in the 1920s, but exploratory drilling for oil and oil shale since the 1960s has been unsuccessful. West Australian Petroleum (WAPET) drilled five holes in the Kennedy Range in the 1950s, and two shallow wells were drilled outside what is now the park's north-east boundary by Hartogen Exploration in 1972. In the early 1980s, Esso took out tenements over the range and conducted limited seismic exploration, which included the drilling of two exploration wells.

Since the mid 1960s, the area has been explored for uranium, diamonds, coal and base metals. But in 1992 a geological report, prepared for the then Department of Minerals and Energy, indicated the mineral potential of the Kennedy Range National Park was low.

But despite this history of exploration, little was known about the vegetation, plants and animals that inhabit the range until fairly recently. A few surveys of selected areas were conducted in 1975, 1987 and 1991, but a full-scale survey had not been carried out until early this year,

Above right: The endemic sand-swimming lizard *Lerista kennedyensis* has only been recorded in the Kennedy Range.
Photo – Ron Johnstone

when zoologists and botanists from the Department of Conservation and Land Management (CALM) and the WA Museum conducted the Carnarvon Basin Survey.

ANIMALS

Twenty-six species of reptile, nine species of mammal and around 70 bird species were recorded on the dunes and swales of the mesa during the recent survey. These ranged from the endemic sand-swimming skink *Lerista kennedyensis* to the death adder (*Acanthophis pyrrhus*), and included the mulgara (*Dasycercus cristicauda*), the little red kaluta (*Dasykaluta rosamondae*, formerly *Antechinus rosamondae*) and the northern mastiff bat (*Chaerephon jobensis*).

The scree-slopes of the range yielded seven species of reptile and 10 native mammals, including the euro (*Macropus robustus erubescens*), the common rock-rat (*Zyzomys argurus*), Finlayson's cave-bat, the skink *Ctenotus uber* and the long-tailed dunnart (*Sminthopsis longicaudata*).

The outwash plains and water-courses below the range support quite a different fauna. Seven species of lizard and eight mammals were recorded in these mulga-dominated communities. They included the dragon lizard *Ctenophorus reticulatus* and the perentie (*Varanus giganteus*), and

Right: Sand dunes on top of range are reminiscent of those on the Cape Range near Exmouth.
Photo – Marie Lochman

Above: Mooka Springs: one of several springs on the west of the range.
Photo – Greg Keighery

Right: The rufous-crowned emu-wren was recorded in the range during a recent biological survey.
Photo – M & I Morcombe

native mammals such as the yellow-bellied sheath-tailed bat and stripe-faced dunnart (*Sminthopsis macroura*).

Of the birds, the most significant find was the rufous-crowned emu-wren (*Stipiturus ruficeps*) in the spinifex dunes on top of the range—the only recorded site in the Gascoyne. This bird is often found on the Cape Range in the Pilbara, a habitat almost identical to that on the top of the Kennedy Range. Small flocks of painted finches were recorded close to their southern limit, and western gerygone and grey fantails were also present as migrants from south-west of the State.

As would be expected, the regular suites of birds found in mulga country and spinifex plains are to be found on and around the range. Common bronzewings and spinifex pigeons are common around water holes on the west side, and wedge-tailed eagles are known to breed in the range and nest in the high cliffs on the eastern side.

FOSSILS & PLANTS

The Merlinleigh Sandstone of the range is of the Eocene period and contains many fossils of marine animals as well as fossil plants. In the 1960s and 1970s, archaeologists collected a small number of fossilised plant specimens, two of which were fruiting bodies of the family Proteaceae that turned out to be banksias. In 1979, palaeontologist Ken McNamara of the WA Museum collected two further fossilised specimens of *Banksia* in the range. From these collections, two new species were described, but only one—*Banksia archaeocarpa*—has been formally named. The existence of these fossils in the range represents the earliest known occurrence of *Banksia* in Australia.

Of the 295 other plant species recorded on the range, about 82 are annual wildflowers, with the remaining being the small, medium and large shrubs.

The outwash plains support open woodlands of mulga (*Acacia aneura*) over shrubs including dandjin (*Hakea preissii*), poverty bushes (*Eremophila* spp.), and cassias (*Senna* spp.). They are particularly rich in bunch grasses such as wanderrie (*Eriachne* and *Eragrostis* spp.) and spear grass (*Stipa* spp.). After rain, mulla mullas, everlastings and rich herbfields of native cornflower (*Brunonia australis*) appear. Creeklines flowing out of the range are lined with coolibah (*Eucalyptus coolabah* var. *rhodoclada*) and the wattle *Acacia citrinoviridis*.

The scree slopes of the range have open low wattle woodlands of snakewood (*A. xiphophylla*) and bramble wattle (*A. victoriae*), with scattered kopi mallees (*Eucalyptus striaticalyx*) over a species-rich but sparse layer of woody shrubs and herbs, including an undescribed species of native lily (*Wurmbea* sp.). Exposed pavements along the top edge of the mesa support low shrublands of native cassias.

The dune ridges on top of the range support a shrubland of prickly plume grevillea (*G. annulifera*), Ashby's banksia (*B. ashbyi*), *Calytrix brevifolia*, and an undescribed, endemic single-sided bottlebrush (*Calothamnus* aff. *borealis*). The interdune plains have hummock grasslands of lobed spinifex (*Triodia basedowii*) and soft spinifex (*Plectrachne schinzii*), with scattered clumps of the narrow-leaved bloodwood (*E. lenziana*), each standing on its own mound of trapped sand.

Springs under the cliffs on the western side of the range support a diversity of tropical aquatic plants including Indian sundew (*Drosera indica*), sedges and bulrushes.

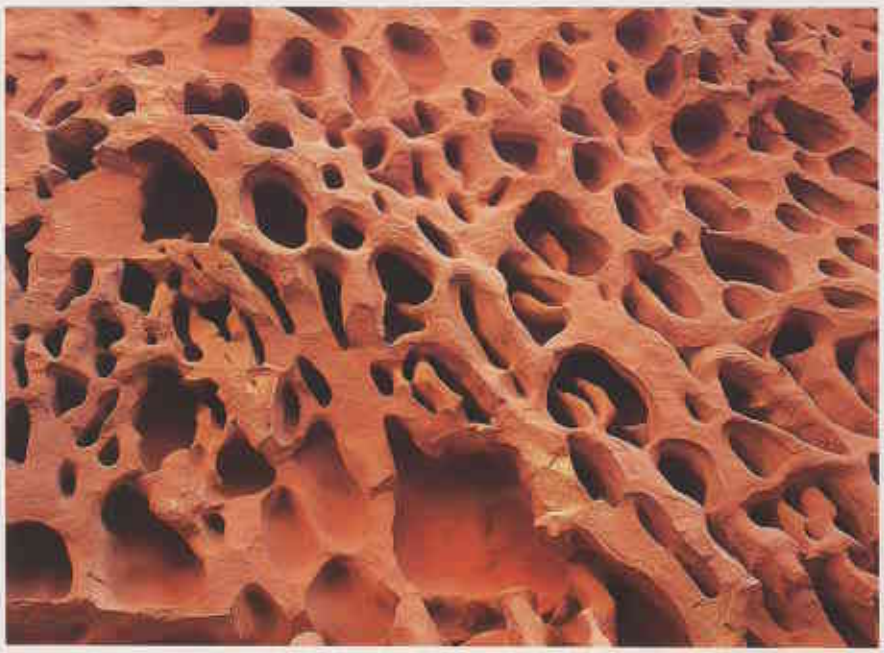
TOURISM

One of the best times to visit the range is in the months following winter rain, when the usually dusty red landscape changes to rich verdant hues and wildflowers flourish and carpet large areas of the surrounding plains.

Kennedy Range National Park is a semi-developed park attracting the more adventurous visitor seeking a wilderness-style of experience. But being within an hour's drive of Gascoyne Junction, it is also attracting those visitors who want to sample the outback experience, but still feel a little unsure about leaving 'civilisation'.

Most visitors travel by road from Carnarvon—a distance of about 210 kilometres. However, you might choose to combine your visit to the Kennedy Range with a visit to Mount Augustus. This can be done as a round trip from Perth to Carnarvon, then inland to Gascoyne Junction, Kennedy Range and Mount Augustus, returning to Perth via Meekatharra, or vice versa. Either way, you should carry ample fuel, food and water. Remember, this is the outback.

Other options include flights and safari tours from Carnarvon and Denham, and coach tours and packaged



Above: The trails from the southern visitor site runs part-way up the side of the gorge to a seasonal waterfall.
Photo – David Gough

Left: Weird, honeycomb-like rock formations carved out of sandstone by wind and water.
Photo – Jiri Lochman

charter flights from Perth. Details of accommodation and tours can be obtained from the Shire of Upper Gascoyne or from the WA Tourist Centre in Perth.

Although unsurfaced, the roads are easily negotiable by the average family car, but may be closed or hazardous after heavy rain (telephone the local Shires for up-to-date information). An access road off the Lyons River Road runs into the park to the main visitor sites. Vehicle access to other parts of the park is not recommended, as tracks are extremely hazardous and it is easy to become lost.

An information shelter on the access road into the park gives details of the campgrounds and walktrails, and describes the mulga country surrounding the range. Bush camping is permitted at the base of the eastern escarpment. The sites are undeveloped and have no facilities other than a bush toilet.

WALKTRAILS

Walktrails run from each site into the nearby gorges and, although the trails are largely unmarked, they are easy to follow.

The trail from the northern visitor site runs into the gorge a short distance before encountering a sheer wall of honeycomb-like rock formations. You can sit below the wall and examine the strange shapes carved out of the sandstone by the combined action of wind and water or look for animal tracks beside the semi-permanent pool at the base of this usually dry waterfall.

From the middle site, a track runs along a creek bed for a few hundred metres before dividing beneath an enormous block of sandstone. The left fork of the creek follows a narrow winding gorge, where occasional pools provide sanctuary for frogs. The right fork continues much farther and you can see where rushing waters have scoured out the creekbed and lower slopes of the gorge.

The trail from the southern site runs part-way up the side of the gorge to a waterfall, which flows after rain. Looking back there are good views east across the mulga plain. From the waterfall, it is possible to scramble down to the creekbed for a different perspective. Look for a large boulder that has tumbled down into the creek bed. On its flat rock face are very old and faint Aboriginal petroglyphs (rock engravings), the meanings of which have long since been lost.

MANAGEMENT

Management guidelines have been prepared for the park in consultation with pastoralists and Aboriginal people.

Long-term management for the Kennedy Range National Park includes the conservation of its biological, physical, cultural and landscape values; the provision of visitor recreational opportunities and facilities that will not compromise the natural values of the range; and the promotion of a better understanding of these and the cultural values through interpretation panels, park brochures and other information.

From a recreational perspective, the visitor sites on the eastern side of the escarpment are being developed to provide a quality wilderness experience for park visitors.

Though the Kennedy Range National Park is still in its infancy, it is becoming well known for its wilderness value. And as you stand at the foot of its sandstone battlements, the Kennedy Range beckons you to explore and discover its natural attractions.

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LANDSCOPE

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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.

FEATURES

REGULARS

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.

Illustration by Philippa Nikulinsky

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