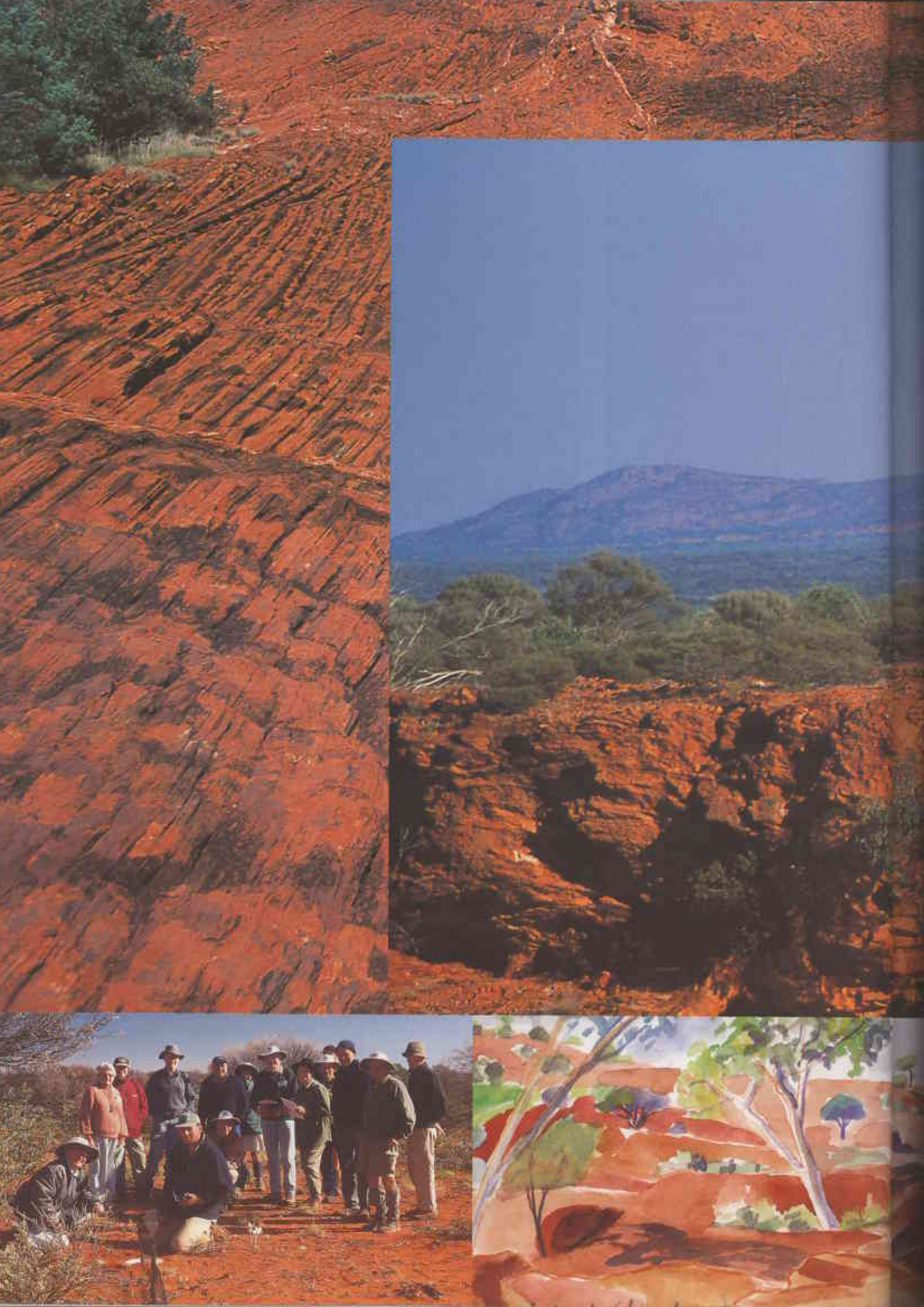

Landscape of the heart

A journey to the Carnarvon Range

by Kevin Kenneally and Jean Paton

In Western Australia's arid interior, at the edge of the Little Sandy Desert, lies the Carnarvon Range. A group of *LANDSCOPE* Expedition members immersed themselves in the wildness and vastness of this ancient world and found, in its remoteness, fulfilment, renewal and the unexpected.

In the pre-dawn glow of a late winter's day, we assembled at the Causeway car park, on the bank of the Swan River in Perth, and loaded the vehicles for our first *LANDSCOPE* Expedition to the Carnarvon Range in the Little Sandy Desert. The late Alex Harris, an environmental journalist, described the ranges as 'looming blue out of the sandplain, changing to brilliant red—a huge mass of crazily-tilted sandstone'. One of our leaders, Kevin Coate, inspired by Alex's descriptions, had heard whispers from people who had visited the area, but they were just that—whispers. "Nobody shouted loudly, in case too many heard," he said. In 1988, Kevin made his first visit to study the area's natural history. The 2001 expedition aimed to build on his initial work, and add to botanical collections commenced by Daphne Edinger in the proposed Carnarvon Range Conservation Park, located north of Wiluna between the Great Northern Highway and the Canning Stock Route.

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Main: Carnarvon Range from the breakaways.
Photo – Kevin Coate
Bottom left: Volunteers checking pit traps.
Photo – Kevin Kenneally
Bottom centre: Watercolour painting of Muirs Pool, Carnarvon Range.
Painting – Fling Boyer
Bottom right: Cresting a sand dune.
Photo – Daphne Edinger

Left: Talbot Rockhole.
Photo – Kevin Kenneally

Below: Convoy at Lake Austin.
Photo – Kevin Kenneally

JOURNEY TO BASE

It would take us two days to reach base camp in the Carnarvon Range. We followed the Swan Valley north and stopped at Gingers Roadhouse to rendezvous with the first of the tag-along vehicles. This was the first *LANDSCOPE* Expedition to involve tag-alongs, volunteers driving their own vehicles who would be self-sufficient for the entire trip. Following the edge of the Darling Scarp, the convoy slowed to admire the monastic town of New Norcia. Jarrah and wandoo gave way to cleared farmland as we passed fields of wheat, canola and lupins. We enjoyed lunch near Wubin in a patch of York gums (*Eucalyptus loxophleba*), where there was time to observe patches of blue fairy orchids and numerous wattles just coming into flower.

The landscape was now flatter and we left the farmland behind for pastoral country dominated by mulga (*Acacia aneura*). At 3.00 pm we reached Paynes Find to meet more tag-alongs, before heading north again. The highway was littered with road-killed red kangaroos and euros, providing food for scavenging foxes, wedge-tailed eagles and whistling kites. Flocks of little crows also competed for the scraps.

Just south of Mount Magnet, we turned into Wogarno Station and met the rest of our tag-alongs. A champagne sunset at Lizard Rock was a great way to renew old friendships with veteran expedition members and meet newcomers to our program. We were a varied group of farmers, medical professionals, artists and academics—keen naturalists all.

Day dawned clear and still, following a relatively warm night in the shearers' quarters. After bacon and eggs at the homestead we bade farewell to Wogarno—but not before being entertained by the awesome speed and agility of a peregrine falcon attempting to flush an immature pied butcherbird from a mulga tree near the quarters. Before our departure, a 'tail-end Charlie' was appointed and call-signs were allocated. Once under way, CB radios sprang to life as Kevin Coate, in the lead vehicle, relayed directions and points of interest to the group. After a brief refuelling stop at Mount Magnet we continued to Lake Austin.

Here, we explored the old stone dwellings of a past generation of gold prospectors and saw the strange dunna dunna (*Laurencia helmsii*) plant that is restricted to the gypsum surface of the surrounding lakes. After passing Cue, we stopped for morning tea at the old Nallan railway dam, which had an abundance of waterfowl and waders. Musk ducks observed here were later confirmed by the Western Australian Museum to be about 300 kilometres north-east of their known range. Our lunch stop was Lake Annean where, from the vantage of a gypsum rise, we were again impressed by the quantity of waterfowl. Then it was on through Meekatharra to an overnight bush camp on the southern branch of the Gascoyne River.

REACHING THE DESERT

By 7.30 am the next morning, we were heading for the range via Neds Creek Station. The dust from the convoy drifted through the mulga, and colourful yellow sennas and purple solanums lined the track. At Neds Creek, owner Ken Hill was there to greet us. We topped up our drinking water before heading into the desert. Mark Cowan, the Department of Conservation and Land Management's Goldfields Regional Ecologist, joined us here.

We were soon under way again, apart from a brief stop to climb Johnsons Cairn, a rock outcrop surrounded by masses of pink-flowering mulla-mulla (*Ptilotus obovatus*). Brightly coloured budgerigars flashed across the sky.

We startled many red kangaroos and euros from their resting places under bushes and, at times, reduced our speed to avoid those sunning themselves on these seldom-used station tracks. Emus were also common. We crossed numerous creek beds dotted with the white trunks of river red gums (*Eucalyptus camaldulensis*), before another short diversion to view Unabubba water hole.

We lunched in a patch of gidgee wattle (*Acacia pruinocarpa*), then continued east. A bustard was seen standing stock-still behind a bush, its beak pointing skyward in an attempt to blend with the surrounding vegetation. We noticed numerous camel prints and droppings along the track, so it was no surprise to overtake five camels. A little farther on we came upon another group of eight, including two youngsters.

As we neared our destination, the landscape changed to red sand and spinifex. Extensive areas had been burnt, but follow-up rains had coloured the landscape. Clumps of new-growth spinifex stood out against the red sand, alongside purple-flowered solanums and a large spreading pea (*Kennedia prorepens*) with its profusion of purplish-red flowers. Scattered through the red sandplain was the soft blue native cornflower (*Brunonia australis*).

Top: Kennedia prorepens—a common creeping pea on the red sandplains.
Photo – Kevin Kenneally

Above: The rare, rock-loving Chapman's tetratheca at Serpents Glen.
Photo – Daphne Edinger

SERPENTS GLEN

The Carnarvon Range was at last within sight, but a steep sand dune provided a challenge for the fully-loaded Oka and trailer. Sandboards were laid and much pushing ensured the Oka crested the dune. We camped at Serpents Glen, a horseshoe-shaped area sculpted into the southern end of the Carnarvon Range. Its name is derived from Aboriginal rock art galleries in the sandstone overhangs.

Carnarvon Range was first explored in 1874 by John Forrest, who named it after Lord Carnarvon, the Secretary of State for the Colonies. Between 1907 and 1909, H W B Talbot surveyed part of the proposed park as an adjunct to surveying the Canning Stock Route. Until the 1960s, few Europeans visited the range. The former Western Australian Fisheries and Wildlife Department undertook brief biological surveys in November 1975 and March 1976.

The range consists of cross-bedded red sandstone that forms low, gently undulating hills, with occasional steep

Left: Good Camp Rockhole.
Photo – Kevin Coate

Centre left: Artist Fling Boyer at work.
Photo – Kevin Kenneally

Below left: A perentie basking on a breakaway at Yeelirrie Station.
Photo – Kevin Coate

cliffs and gullies containing a few semi-permanent pools named by doggers and explorers—Virgin Springs, Talbot Rockhole and Good Camp Rockhole. Red sand ridges and plains occur at their base and there is one salt lake, Lake Kerrylyn, in the area. In the late afternoon, we photographed the last of the sun's rays lighting up the towering cliff faces with fiery reds. The colourful landscapes were a favourite subject of volunteer Fling Boyer, who captured her experiences with watercolours and pencils. An accomplished artist, Fling's interpretations of the landscapes and animals were a source of delight for fellow travellers.

FIELDWORK

Once camp was set up at Serpents Glen, the fieldwork could begin. Our 25 volunteers assisted with a variety of scientific tasks. Dr Rick How, a zoologist with the Western Australian Museum, and Mark Cowan coordinated the terrestrial vertebrate survey; Kevin Coate focused on birds, adding to his observations from earlier trips; and botanists Kevin Kenneally and Daphne Edinger, assisted by Pat Angel (a volunteer with the Department of Conservation and Land Management's WA Herbarium), collected plants. And while we studied the wildlife, Dr David Webb from The University of Western Australia studied us! His research focused on people's interactions with the natural environment.

Working in small teams, volunteers were kept busy each day on a variety of survey activities in and around the Carnarvon Range. Each evening, we gathered around the campfire and shared the day's discoveries. These sessions were an opportunity for volunteers to discover the processes and difficulties involved in managing remote conservation areas—and to ask questions they had been saving up all day.

PLANTS

Fire has been a major modifying process in desert regions. This expedition enabled us to gauge the impact of widespread wildfires on the vegetation of the surrounding sandplains by comparing unburnt, burnt and regenerating sites. Of more than 200 plant collections made during our visit, 46 were new records for the proposed Carnarvon Range Conservation Park.

Some plants are unique to the area. Cascading from fissures in the rocks were nature's hanging baskets, the rock-loving *Tetratheca chapmanii*, with its clumps of bright pink flowers. This plant is common throughout the Carnarvon Range, but is not found outside this area. Also of interest was the northerly range extension of the pale pink starflower (*Calytrix praecipua*), again restricted to the sandstone outcrops. A broombush, *Melaleuca hamata*, was another significant northerly range extension, as it had previously been collected only from between Leinster and Leonora. It is related to the common broombush (*Melaleuca uncinata*) of the Wheatbelt.

At Good Camp Rockhole, a discovery was made while plumbing the depth of water in the pool. The stick came up covered in a slimy raft of dark green freshwater algae. Noticing that it was a species of *Spirogyra*, Kevin Kenneally rescued it before it was thrown back. Samples were preserved in 70 per cent alcohol. On our return to Perth, the material was sent to Dr Stephen Skinner at the Royal Botanic Gardens in Sydney. He identified it as containing *Spirogyra neglecta*, a desmid (*Pleurotaenium* sp.), and two species of *Oedogonium*. One of these, *Oedogonium silvaticum*, proved to be a new species record for Australia and the other is an undescribed species. These unexpected discoveries highlight the importance of doing survey work in remote areas.

MAMMALS AND REPTILES

Under the direction of the zoologists, the volunteers set up traps in a variety of habitats within three kilometres of the campsite. These were checked each morning at first light. The intensive pitfall and Elliott trapping resulted in the identification of two small marsupials—the wongai ningaui (*Ningaui ridei*) and the lesser hairy-footed dunnart (*Sminthopsis youngsoni*). Four rodents—the sandy inland mouse (*Pseudomys hermannsburgensis*), desert mouse (*Pseudomys desertor*), spinifex hopping-mouse (*Notomys alexis*) and the introduced house mouse (*Mus domesticus*)—were also recorded. The sandy inland mouse was found in all the pitfall and Elliott trap lines and showed marked changes in colouration, suggesting a genetic variation in this wide-ranging arid zone species. Only one house mouse was recorded, indicating that there was no residual high population level in this species following the good desert seasons of 1998–99.

Very old, dried droppings of rock-wallabies and stick-nest rats were found under overhangs above Virgin Springs, to the west of our campsite. The rock-wallaby droppings were probably of the central Australian race of *Petrogale lateralis*, but there was no evidence of recent activity. Droppings of stick-nest rats (*Leporillus* sp.) were found under the same overhang. No existing mainland populations are known for either of the two species of stick-nest rats.

The number of reptiles captured or seen was disappointing, as the cool nights and mild days of early August were not conducive to their activity. Although a diverse reptile assemblage had already been recorded from the area, our attempts to sample below-ground

Top: Native cornflower.
Photo – Kevin Kenneally

Above: Margo Webb admiring the snow plant (*Macgregoria racemigera*).
Photo – Kevin Coate

Above: The wongai ningaui is one of Australia's smallest marsupials.
Photo – Kevin Kenneally

Left: Rick Curtis with his memorable damper.
Photo – Ric How

reptiles using pitfall traps proved unsuccessful. In fact, more than half of the species recorded were either caught by hand or observed during the day.

BIRDS

Although there was plenty of water in rock holes and seepage areas, bird life was generally scarce. Kevin Coate attributed this lack, even of common birds like the zebra finch, to the dryness of the surrounding countryside and the vast areas burnt by bushfires some eight months earlier. Abundant rainfall and a good season further north could also have contributed to the paucity of bird numbers, especially of nomadic species.

Nevertheless, the expedition added several new species to previous lists, the most notable being the rufous-crowned emu-wren, inland dotterel and banded whiteface. The rufous-crowned emu-wren, first spotted by Val Talbot and Sue Clarkson, were reasonably common in unburnt areas of spinifex and *Aluta maisonneuvei* between Serpents Glen and Talbot Rockhole. Dr Mary Bremner spotted a number of banded whiteface; Peter Wilshaw observed the inland dotterel on the stony plain country; and John Tucker disturbed two tawny frogmouths when he was returning from the summit of M6, a trig point at the eastern end of the range.

During most nights at Serpents Glen and at our camp in the breakaways, we heard the distinctive 'tukka-tukka-tukka' calls of spotted nightjars and 'chirring' sounds from owlet nightjars. While walking upstream from Talbot Rockhole, two owlet nightjars were flushed from their roosting hollows. Seventy-one bird species were recorded in the proposed park and the adjacent Blue Hills Pastoral Lease during our visit. These recordings, together with plant records, are included in a paper being prepared by Kevin Coate and Daphne Edinger for publication in the journal of the Western Australian Naturalists' Club.

HOMEWARD BOUND

After five days at base camp it was time to begin the journey home. Our route took us past the abandoned Blue Hill homestead. We spent a night camped in the breakaways, our last evening within sight of the Carnarvon Range. Next day, we headed to Wiluna and Sandstone via Granite Peak Station, with a memorable morning tea stop at Spriggs Pool, sheltered by arching white-gums. We spent our last night at Paynes Find Tavern.

Volunteer Eric Carlin summed up his impressions of the trip in the expedition diary:

> ". . . we must say a fond farewell to Serpents Glen, jewel of the Carnarvon Range. It was just the Glen we were saying farewell to, but in years to come, 'hived in us like old honey', would be our memories of it. Memories of the sand hill barrier on the first day and the adrenalin rush as succeeding drivers charged and slewed and wobbled triumphantly over the top . . . Memories of Mark Cowan sacrificing yet another finger, his lips tightly drawn as we pumped him with questions regarding the mammal in his fist. Memories of the morning the hopping-mouse escaped and was pursued enthusiastically around the campsite until tackled and trapped by John Tucker. Memories of Kevin Coate leading his lemming-like bird enthusiasts in pursuit of the . . . as-yet-unsighted wren, honeyeater, swallow, babbler, bellbird, falcon . . . Memories of rockholes surrounded by exquisitely beautiful river gums—Good Camp Rockhole, Talbot Springs, Virgin Springs. Memories of the climb to M6 and the views of the country spread out below and, in the distance, the breakaways. Memories of improbable tucker and a most memorable damper created by Rick Curtis."

And so ended another *LANDSCOPE* Expedition.

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Kevin and Jean acknowledge the volunteers, leaders and support crew for their companionship and commitment to the 2001 Carnarvon Range *LANDSCOPE* Expedition.

Winner of the 1998 Alex Harris Medal for excellence in science and environment reporting.

LANDSCOPE

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Thirteen years in the making, the Cape to Cape Track offers a unique view of WA's most popular national park. See page 28.

Karijini's new visitor centre provides a cultural and environmental focus point for visitors. See 'Karijini Calling' on page 10.

Dirk Hartog Island is our largest island. It has a fascinating history and a valuable biodiversity. Find out why on page 17.

Does the delicate work of Western Australia's botanical artists have a place in the high-tech world of science? See page 23.

'Landscape at the Heart' is an account of the first LANDSCOPE *Expedition to the Carnarvon Range at the edge of the Little Sandy Desert. See page 40.*

FEATURES

REGULARS

COVER

Aboriginal names have always been part of Australia's history, and many of the well known names for Australian animals are in common use today. 'Ancient animals, ancient names' (page 35) makes a case for adopting more Aboriginal names for our native mammals. The brush-tailed phascogale, for example, was known to Nyoongar people as the 'wambenga'.

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