

## THE KINGS PARK EXPEDITION TO THE KIMBERLEY

At the meeting of 1 July 1998, Dr Steve Hopper, Chief Executive Officer of Kings Park & Botanic Garden, told us about the May 1997 "Kings Park Expedition" in which the primary purpose was to collect seeds to grow in the Park. Steve has written a book on the Kangaroo Paws and has studied the genus *Conostylis*. They belong to two subfamilies which predate the separation of Gondwana. South Africa has weird ones with unusual pollination systems. They are an intriguing family. There are none in Chile or Argentina – those that were there are extinct. The family might be more than 100 million years old and use of DNA is needed to work out their relationships. Steve is currently writing a book about the genus *Haemodorums* and its relatives. There's one *Haemodorum* in Papua New Guinea and one in Tasmania; the south-west has 10 species and there seem to be five or six species in the Kimberley. One, *H. parviflorum*, with yellow flowers, equals *H. flaviflorum* of Fitzgerald, of which there is an outlier in Arnhemland and Darwin. Steve is describing them for his book and needs roots and leaves as well as flowers and photographs.

The Kimberley expedition was the first foray into the region by Kings Park and a first for Steve too. There were 12 paying passengers, many of them Park volunteers, plus four staff, including 80-year-old Pauline Fairall. The trip began in Kununurra, using a 4WD OKA bus, and was plagued by rain. Mirima National Park—like a miniature Purnululu (Bungle Bungle Range)—was the first stop and yielded an undescribed *Trachymene* (Lace Flower) endemic to the Park. Steve showed excellent slides of this specimen and of the interesting plants from the other areas visited by the expedition. He also explained his rapid survey technique - using sticky tape in a note book to attach small pieces of plants and make relevant notes, with accurate locations. He collects few herbarium specimens, except in his specialty areas of orchids, eucalypts and the family Haemodoraceae (Kangaroo Paws, etc.).

From Mirima, the group travelled through grasslands and crocodile country (with accompanying signs) to Point Spring Nature Reserve. In a pocket of vine thicket they saw many honeyeaters and were able to observe that they were pollinating eucalypts. Here Steve saw and photographed his first of the 5 or 6 Kimberley species of *Haemodorums*. He was fascinated by *Eucalyptus pruinosus* at sunset and later found it in flower, with a small black Trigonid bee pollinating these creamy, showy flowers. The Kununurra boabs also made fascinating pictures but growing them in the Park has met with no success, unfortunately.

The next visit was to the Argyle Diamond Mine where Rebecca Knowle, the Environmental Officer, showed the rehabilitation program. Its aim is to restore the

original vegetation, and it seems to be doing well. Of interest is that they were finding Spinifex grass hard to grow from seed and eventually found it would grow easily from cuttings.

*Melaleuca minutifolia* was noted on the flood plains and *Grevillea agrifolia* with cream flowers was quite common. *Gomphrena canescens* (deep pink Batchelors Buttons) seeds were collected to plant in the Park where they will give year-round colour when our local everlastings have finished. *Polycarpaea* is very similar, a deep pink papery flower, only in a different family.

Two days in Purnululu (Bungle Bungle Range) followed and here they found the largest showy *Ptilotus exaltatus* whose seeds they also collected. *Calotropis procera*, Caltrop, caught their eye before they realised it was a noxious weed from Arabia and a pest in the Kimberley. It had originally been imported as a source of latex, but ran riot. All members had a helicopter ride over the range and later walked into Cathedral Gorge which had been badly burnt. The newly described endemic *Grevillea psilantha*, by Don McGilivray, was found and photographed.

Heading north, on the way to Wyndham, they encountered the strange 'elephant's ear' wattle, *Acacia dunnii* with large seed pods. They then ventured onto the famous Gibb River Road and the first camp left much to be desired. Here they came upon more *Haemodorums*, or blood roots, which Aboriginal people use to dye clothes. They were not flowering but were probably the yellow-flowered *H. ensifolium* = *longifolium* of Fitzgerald.

Being May, the *Eucalyptus phoenicea* was striking with its bunches of bright orange flowers, well attended by masses of honeyeaters and lorikeets. Seven species of birds were counted feeding on the fragrant flowers. Next came paperbark flats and ephemeral swamps, with the worldwide yellow-flowered *Xyris* and the carnivorous *Byblis* well in evidence, plus Stylidiums or Trigger plants. At the King Edward River Crossing, they saw their first Aboriginal rock paintings, well photographed.

They ventured onto the palm-bedecked Mitchell Plateau (*Livistona eastonii*) with *Eucalyptus miniata*, the Darwin Woolly Butt and *E. tetradonta*, the Darwin Stringybark. Vine thickets and mangroves, including the deciduous *Xylocarpus* (in Meliaceae), were seen from a helicopter, also *Xanthostemon paradoxus*, with fluffy yellow flowers pollinated by birds, by the Mitchell Falls. Here a misfortune befell them when one of the older members collapsed from heatstroke and dehydration and had to be airlifted to hospital for emergency treatment. Luckily she soon recovered.

The Gibb River Road was closed from here on but Steve was lucky to score a helicopter ride to both Mt Bomford and Mt Agnes, both visited by C A Gardner in

1928 where he had collected a new *Borya* (resurrection plant), *B. subulata*, also collected now by Steve himself. They then flew south-east across the Prince Regent River to Mt Hann. *Grevillea latifolia*, also named by Charles Gardner, was found near Drysdale River Station.

Because of the Gibb River Road closure, due to heavy and late rains, the group travelled back to Wyndham. The many ponds or pools were covered with mauve flowering waterlilies, *Nymphaea*. *Caladrinias* with bright pink flowers grew on the banks and *Melaleuca nervosa* with two-colour forms, red and green flowers, seemed of great horticultural potential. If one indulges in a little "belly botany", many tiny, fascinating plants can be seen, such as the hairy *Centrolepis exserta*, a grass-like oddity. *Barringtonia acutangula*, the so-called freshwater mangrove, occurs all across the top end to Queensland. *Terminalia canescens* is a common 'nut tree' growing on rocky slopes.

From Halls Creek, after camping at the picturesque Caroline Pool, they travelled to Derby and saw *Acacia suberea*, with the very corky bark, growing on the black soil plains, also the native Bauhinia, *Lysiphyllum cunninghamii*, in red flower. The large but very slow growing boabs were in flower near Derby. Those around Broome have been planted – they don't grow there naturally - and, outside of Australia, they occur only in Africa and Madagascar.

An interesting two-week trip ended when the party members all flew home from Broome.

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