

A BIOLOGICAL SURVEY OF THE DRYSDALE RIVER NATIONAL PARK, NORTH KIMBERLEY, WESTERN AUSTRALIA, IN AUGUST 1975

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During August 1975, a biological survey of the Drysdale River National Park was carried out by staff of the Western Australian Wildlife Research Centre, the Western Australian Museum, the Western Australian Herbarium and the C.S.I.R.O. Division of Entomology.

The Park includes a cross section of the main geological formations of the north Kimberley, although laterites are poorly represented.

Biologically it is intermediate between the sub-humid north-west Kimberley and the semi-arid east Kimberley. The vegetation is predominantly low open-forest, low woodland and low open-woodland but there are small areas of low closed-forest and just outside the Park an area of tall closed-forest.

The list of plants contains 594 taxa, including 25 ferns and 537 flowering plants. Thirty-four taxa, including 8 genera, are new records for Western Australia. The discovery of *Rapanea* is of particular interest.

The mammal collection of 28 native species includes three bats, *Nyctophilus arnhemensis*, *N. bifax* and *N. walkeri*, not before recorded in Western Australia. The bird and reptile faunas are intermediate between those of the north-west and east Kimberley, although many species are shared by all three areas. There is a rich tree-frog fauna of 10 species. Twenty-six species of freshwater fish were recorded, the richest known in the Kimberley. The molluscs include a number of arboreal and freshwater, as well as terrestrial, species. The insect collection contains some 2 415 species but the lack of collections from much of the Kimberley makes interpretation difficult.

Recommendations are made to enlarge the Park slightly, firstly by including parts of a stock route which at present divides it in two and secondly by including the unique area of tall closed-forest.

PART I

HISTORY OF THE DRYSDALE RIVER NATIONAL PARK

by A. A. BURBIDGE¹

EXPLORATION

The Drysdale and Carson Rivers were named by C. A. Burrowes, Surveyor for the Victoria Squatting Company, in 1886. The Carson River was named after David Carson, a Director of the Victoria Squatting Company which leased land in the vicinity of the Carson River. The Drysdale was named after a J. A. Drysdale of Melbourne and presumably he too was involved with the Squatting Company. Burrowes explored the country west of Cambridge Gulf to Mt Bradshaw (Tomlin and Cleave 1966) and he may have been the first European to visit the area now included in the Drysdale River National Park.

The next Europeans to visit the area were members of the Brockman Exploring Expedition of 1901 (Brockman 1902). Brockman traversed the Park southwards along the Drysdale River during October and November 1901 and his campsites FB89 to FB95 were in the Park. His camp 93 coincided with Crossland's (his second-in-command) Camp 41. From here Brockman travelled south-easterly along Tadarida Creek to Tadarida Scarp and thence southwards to Banko Creek and out of the Park.

Crossland, who led a second party, entered the Park on two occasions, and his camps C37 to C44 were in the Park. He was accompanied during this part of the exploration by Dr. F. M. House who acted as naturalist to the Expedition. Crossland's party travelled northwards from the point on the Drysdale where

Crossland Creek enters, along the east side of the Ashton Range to Latitude 15°S. After going westward to the Carson Escarpment he turned eastward to the Drysdale River and then southward, following the river. Crossland's Camp C38 was very close to our site A4. In 1903 the surveyor A. H. Salmond traversed parts of the Park on two occasions during a trip which started and finished at Napier Broome Bay. He entered the Park near the point where Palmoondoora Creek leaves it. He then journeyed south-eastwards to the Carson River and southward along it to the Foster Range, continuing southward over the Creek near Old Doongan homestead (Old Doongan Creek) and across Crossland Creek before turning eastward, crossing the Drysdale and turning north at Dampier Creek. His northward track passes through the Park between the Drysdale and the Carson Escarpment.

The next visitors to the Park were members of an expedition led by C. P. Conigrave in 1911-12. Conigrave was a member of the Royal Australian Ornithologists Union and an account of his expedition can be found in the journal *Emu* (Anon. 1912). Conigrave passed through the Park on his return to Wyndham from the "Napier Broome Mission Station" (the old Pago Mission to the northeast of the present mission at Kalumburu). They entered the Park near Dysphania Gorge but on the opposite side of the Drysdale and then travelled eastward and south-eastward towards Wyndham.

The Kimberley Expedition of 1921 passed southward along the Carson River en route from the "Drysdale Mission" (again the old Pago Mission) to Derby (Easton

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1922). A member of this expedition was the well known botanist C. A. Gardner who later published a work on the flora collected during the trip (Gardner 1923).

The last documented visit was that of the North Kimberley Survey and Mapping Expedition, 1954 (Morgan 1955). This expedition conducted detailed surveys and prepared a general land classification of the central north Kimberley. They also constructed the first vehicular track from Gibb River Station to Kalumburu. During this expedition Morgan discovered the falls which now bear his name.

ESTABLISHMENT OF THE PARK

The Drysdale River National Park was gazetted by notice published in the *Government Gazette* of 27 September 1974. The reserve (No. 32853) was for the purpose of "National Park" and was classified "Class B". The National Parks Board of Western Australia (now the National Parks Authority) was appointed Board of Control under the Parks and Reserves Act, 1895. The Park is of 424 342.652 ha.

The first proposals for a reserve in the area came from Mr J. S. Morgan (now the Surveyor General of W.A.) in 1955. The Park with its present boundary was recommended by the Western Australian Sub-committee of the Australian Academy of Science Committee on National Parks (Anon. 1962). The sub-committee recommended that the area be made a National Park and selected it as containing land typical of the northern savannah formations of tropical Australia. Although both the National Parks Board and the Department of Fisheries and Wildlife requested that the area be set aside as a reserve, nothing further eventuated until 1969 when the Government appointed a Reserves Advisory Council. After some members of the Council inspected the reserve, partly by air, and partly on the ground in the vicinity of the Carson River at Cherin-goomerie Pool, it recommended to the Minister for Lands that the area be reserved for "National Park, Conservation of Flora and Fauna and Protection of Aboriginal Sites". The reasons for this and the conditions of vesting in the National Parks Board were the same as those in the recommendation covering the Prince Regent River Nature Reserve (Burbidge 1975, p. 9). However, this recommendation of the Reserves Advisory Council was not accepted by Cabinet, mainly because of the objections of the Mines Department that the area was prospective for uranium and diamonds. In 1972 the newly created Environmental Protection Authority set up a Conservation Through Reserves Committee to recommend a State-wide system of conservation reserves. The Drysdale River area was one

of the first considered by the Committee and in April 1973 the Authority endorsed its recommendation that the area be made a Class A reserve for National Park. Negotiations with the Mines Department finally resulted in the Class B status being adopted.

BACKGROUND TO THIS EXPEDITION

Since 1971 the Department of Fisheries and Wildlife has organised a series of biological surveys in the north-west Kimberley (see Burbidge 1975). Following the successful outcome of the survey of the Prince Regent River Nature Reserve (Miles and Burbidge 1975) the participating organisations decided to continue their work with a survey of the Drysdale River National Park in the north Kimberley.

Accordingly requests were made for funds to the Western Australian Government (through the Department of Fisheries and Wildlife and the National Parks Board of Western Australia) and the Australian Biological Resources Study Interim Council. The latter body was unable to find the full amount requested and forwarded the application to the Department of Environment (now the Department of Environment, Housing and Community Development) which was able to make up the balance.

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