

PART II

NARRATIVE OF THE SURVEY OF THE DRYSDALE RIVER NATIONAL PARK

by E. D. KABAY¹

THE SURVEY

The biological survey of the Drysdale River National Park began when E. D. Kabay, T. Evans and H. G. Hall left the W.A. Wildlife Research Centre at Wanneroo with supplies and equipment. Driving a long-wheel base Landrover and a five tonne truck with trailer, they arrived at Old Doongan, the Base Camp, for the expedition on Sunday, 27 July.

Following study of aerial photographs, an initial air reconnaissance over the park was made by A. A. Burbidge in September 1974, to ascertain the type of terrain in the area and the possible location of the survey sites and base camp. Old Doongan homestead was found to be close to the park and to be superficially in reasonable shape. Subsequent enquiries to the managers of the station, Australian Agricultural Consulting and Management Co. Pty. Ltd., seeking permission to use the old homestead and seeking information on the state of the road to the station and its airstrip, received favourable replies. A. A. Burbidge made a second air reconnaissance over the park and visited Old Doongan in June 1975. The condition of the homestead was determined and arrangements were made with the manager of the station, Mr. Tony Doyle, for the airstrip to be regraded and for fresh meat to be supplied to the team during the survey.

In some ways the current survey was to be easier than the preceding Prince Regent River Reserve (Miles and Burbidge 1975). Firstly, the Prince Regent trip provided the necessary experience of running a major expedition using a helicopter as a means of transport. Secondly, unlike the Prince Regent survey, where Beverley Springs Station, the base camp, was 85 km from the border of the reserve, Old Doongan was only 5 km from the Park. However, because of the impassibility of the north/south running Carson Escarpment and the Ashton Ranges, a helicopter was still required.

Old Doongan, the second of three homesteads built on Doongan Station, had not been occupied since 1969. With the aid of A. A. Burbidge, who had been picked up at Derby on the way through, the five days following July 27, were spent removing evidence of cattle habitation and repairing the flywire screening, electrical wiring and plumbing and connecting up the water from the creek to the homestead. By the time the chartered MacRobertson-Miller Airlines Twin Otter aircraft from Derby landed bringing the main survey party, Old Doongan was ship-shape.

On the morning of the day the rest of the team flew in, A. A. Burbidge, E. D. Kabay and T. Evans conducted a brief survey of the sites in the helicopter. Sites A4 and A3 were shifted slightly nearer to water and a better helicopter landing place. Site B3 was shifted 15 km north of its original site onto Johnson Creek, a more rugged and interesting place. During the first supplementary survey by A. A. Burbidge and A. S. George to

Cape Londonderry, the helicopter landed at Solea Falls (Plate 3). Several rock wallabies were seen and one was collected. Because of the interesting nature of the immediate surrounding area, the B4 site was shifted to this location from 40 km south. All other sites were found to be suitable and no alterations were made to their location. The selection of the survey sites, their numbering and duration of occupancy were similar to the previous expedition (Miles 1975). The only major changes in the general format of the survey were to allow a botanist to visit each site for up to 3 days, and to locate Team 1 on water. As well, supplementary one-day surveys for each of the specialist groups were to be conducted in between resupply and shift days.

The sites were designated A1 to A4, B1 to B4 and C1 to C5. Application was made to the Nomenclature Advisory Committee of the Department of Lands and Surveys to name various features associated with these and other sites. Attempts were made through the efforts of Dr. Ian M. Crawford, Head of Division of Human Studies in the W.A. Museum, to obtain authentic local aboriginal names for the various physical features in the Park. However, these efforts were unsuccessful and biological names suggested by members of the survey team were put to the Nomenclature Committee. The names adopted have been listed in Table 1.

The survey party consisted of the following personnel who were responsible for their own particular speciality: A. S. George and K. F. Kenneally—plants; N. L. McKenzie, A. Chapman, A. A. Burbidge, W. K. Youngson and E. D. Kabay—vertebrates, especially mammals; J. Dell, R. E. Johnstone and P. J. Fuller—vertebrates, especially birds; L. A. Smith—vertebrates, especially reptiles and frogs, J. B. Hutchins—fishes, B. R. Wilson and S. M. Slack-Smith—molluscs; I. F. B. Common and M. J. Upton—insects; F. G. Smith—vegetation mapping; J. Henry—Technical Officer at Base Camp and H. G. Hall—truck driver, cook and general rouseabout. E. D. Kabay and A. A. Burbidge shared Base Camp co-ordination with field duties.

People in the various teams were:

Team 1—E. D. Kabay/A. A. Burbidge, I. F. B. Common, M. J. Upton, J. B. Hutchins, P. J. Fuller and B. Wilson.

Team 2—N. L. McKenzie, J. Dell and S. M. Slack Smith.

Team 3—W. K. Youngson and L. A. Smith.

Team 4—A. Chapman and R. E. Johnstone.

The location of the teams at different times is given in Table 2.

A. S. George and K. F. Kenneally alternated between Team 1 and 4, and 2 and 3 respectively. Their location at various times is given in Table 3.

Details of the supplementary surveys are given in Table 4. The helicopter used was a Bell Jet Ranger owned by Bristow Helicopters Pty. Ltd. The helicopter was ably

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TABLE 1
NAMES ADOPTED FOR FEATURES IN THE PARK

| Site | Name | Origin |
|-----------|-------------------|--|
| A1 | Mogurnda Creek | After <i>Mogurnda mogurnda</i> , a freshwater fish common in the Creek. |
| A2 | Tadarida Scarp | After <i>Tadarida loriae</i> , (Little Northern Scurrying Bat). The only specimen of this species was collected at this site. |
| | Tadarida Creek | |
| | Lorikeet Creek | |
| | Boiga Falls | The Varied and Red-collared Lorikeets (<i>Psitteuteles versicolor</i> and <i>Trichoglossus haematodus rubritorquis</i>) were very common at this site. |
| A3 | Pseudomys Hills | After <i>Boiga fusca</i> (Brown Tree Snake). |
| A4 | Dromaius Creek | An undescribed species of <i>Pseudomys</i> (Native Mouse) was found at this site. |
| B1 | Glider Gorge | After <i>Dromaius novaehollandiae</i> (Emu) which was common in the area. |
| | Orchid Creek | A very distinctive feature in the Carson Escarpment. After the Sugar Glider (<i>Petaurus breviceps</i>). |
| | Dulcis Falls | After the Orchid <i>Dendrobium dicuphum</i> which was common at this site. |
| B2 | Nymphaea Creek | After <i>Malurus dulcis rogersi</i> , the beautiful Lavender Flanked Wren found in the Gorge. |
| | Finches Creek | After the large purple water lily of the genus <i>Nymphaea</i> which was found in the creek. |
| B3 | Cracticus Falls | At this site 6 different species of finches were observed. |
| | Petrogale Gorge | After the Silver-backed Butcher bird (<i>Cracticus torquatus argenteus</i>) seen at this site. |
| B4 | Solea Falls | After the Short-eared Rock Wallaby, <i>Petrogale brachyotis</i> , seen in the gorge. |
| | Petrophassa Creek | Solea is Latin for horseshoe which describes the shape of the falls. |
| C1 | Elasmias Creek | After the White-quilled Rock Pigeon, <i>Petrophassa albipennis</i> which was common in the area. |
| | Elasmias Falls | A large number of aboriginal snails of the genus <i>Elasmias</i> were found amongst the vine thickets that lined the creek. |
| | Christella Falls | After the fern <i>Christella dentata</i> which had not previously been recorded from W.A. |
| | Colochasia Creek | A large number of the uncommon aroid <i>Colochasia antiquorum</i> were found along the creek. |
| C2 | Euro Gorge | Euros (<i>Macropus robustus</i>) were observed in the general area. |
| C3 | Planigale Creek | The only specimen of <i>Planigale maculata</i> (a carnivorous marsupial mouse) was found at this site. |
| C4 | Carlia Creek | After <i>Carlia johnstonei johnstonei</i> a species of skink common in the area. |
| | Coucal Gorge | The Pheasant Coucal, <i>Centropus phasiantrus macrourus</i> was observed at this site. |
| C5 | Robin Gully | Only locality where the Buff-sided Robin, <i>Poecilodryas superciliosa cerveniventris</i> was found. |
| | Schizaea Creek | The fern <i>Schizaea digitata</i> was found at this site. It is the first record of the species for W.A. |
| | Dysphania Gorge | The large orange coloured moth (see plate 10) <i>Dysphania fenestrata</i> was found here. |
| | Forest Creek | The only locality in the Park where a tall closed-forest grows. |
| | Galaxy Swamp | C5A. Hence its name. |
| Base Camp | Old Doongan Creek | After the Old Doongan Homestead, the expedition's base camp. |

TABLE 2
LOCATION OF TEAMS

| Team | Dates | Location |
|---|-------------------|----------|
| Team 1 | 3/8/75 - 9/8/75 | A1 |
| | 9/8/75 - 16/8/75 | B1 |
| | 16/8/75 - 22/8/75 | C1 |
| | 18/8/75 - 22/8/75 | C5 |
| (Common, Upton and Hutchins only at C5) | | |
| Team 2 | 3/8/75 - 9/8/75 | A2 |
| | 9/8/75 - 15/8/75 | B2 |
| | 15/8/75 - 22/8/75 | C2 |
| Team 3 | 3/8/75 - 9/8/75 | A3 |
| | 9/8/75 - 15/8/75 | B3 |
| | 15/8/75 - 22/8/75 | C3 |
| Team 4 | 3/8/75 - 9/8/75 | A4 |
| | 9/8/75 - 15/8/75 | B4 |
| | 15/8/75 - 22/8/75 | C4 |

piloted by Joe Ward and serviced by engineer Paul Richardson. The Bell Jet Ranger was smaller than the Alouette III which was used on the Prince Regent Survey, but the main problem was not the weight of the supplies and equipment but rather their bulk. Maximum payload with full fuel tanks was 250 kg with an endurance of 2½ hours and a maximum speed of 85 knots. Because turbine powered helicopters develop maximum power

under cool environmental conditions, the flight schedule was arranged so that the helicopter flew in the morning as much as possible.

As with the previous survey all supplies were prepacked at Wanneroo. Fuel was carted by contract from Derby and left next to a steep banked creek about 40 km from Old Doongan. The Department of Fisheries and Wildlife's four-wheel-drive truck was used to haul the fuel the rest of the way to Base Camp. Arrangements were made to have the mail plane from Wyndham deliver mail and fresh vegetables to Old Doongan on its regular weekly run.

Dr. B. R. Wilson and Mrs. S. M. Slack-Smith were programmed to arrive at Old Doongan on 9 August and to be placed in the field the next day but were delayed by a pilot's strike and were not flown out to join their teams until 13 August. Thus 13 people were maintained in the field during the first week and 15 in the second and third weeks. Dr. F. G. Smith arrived on 17 August and operated from Old Doongan.

All shifts and resupplies were accomplished in one day except for the shift to C sites. In this case Team 1 had to be shifted a day later. On 18 August part of Team 1 was transferred to C5 due to the area around C1 being burnt out shortly after the team's arrival there. The rest of the team remained at C1.

During the survey, Base Camp was visited by the noted wildlife photographer, Michael Morcombe, and his colleague Malcolm Lewis. An opportunity was taken during the supplementary entomological survey to fly

TABLE 3
LOCATION OF BOTANISTS

| Dates | A. S. George | K. F. Kenneally |
|-------------------|--------------|-----------------|
| 3/8/75 - 6/8/75 | A4 | A2 |
| 6/8/75 - 9/8/75 | A1 | A3 |
| 9/8/75 - 12/8/75 | B1 | B3 |
| 12/8/75 - 15/8/75 | B4 | B2 |
| 15/8/75 - 18/8/75 | C4 | C2 |
| 18/8/75 - 22/8/75 | C1 | C3 |

them into the Park to take photographs of various features for the National Parks Authority and the Department of Fisheries and Wildlife. As well, they took pictures of some of the more interesting specimens caught during the survey. Some of their photographs are published in this report.

ACKNOWLEDGEMENTS

On behalf of all members of the survey the author expresses appreciation for the assistance and cooperation given by Mr and Mrs A. Doyle of Doongan Station, Mr M. Gugerl of Gugerl Transport, Derby and the staff of Bristow Helicopters Pty. Ltd.—particularly Joe Ward and Paul Richardson. Appreciation is also extended to the Amax mining company, the owners, and Australian

Agricultural Consulting and Management Co. Pty. Ltd., the managers of Doongan Station, for permission to use the Old Doongan homestead. We also thank Mr T. Evans and Mr A. Mangini who assisted with the loading and driving of the truck.

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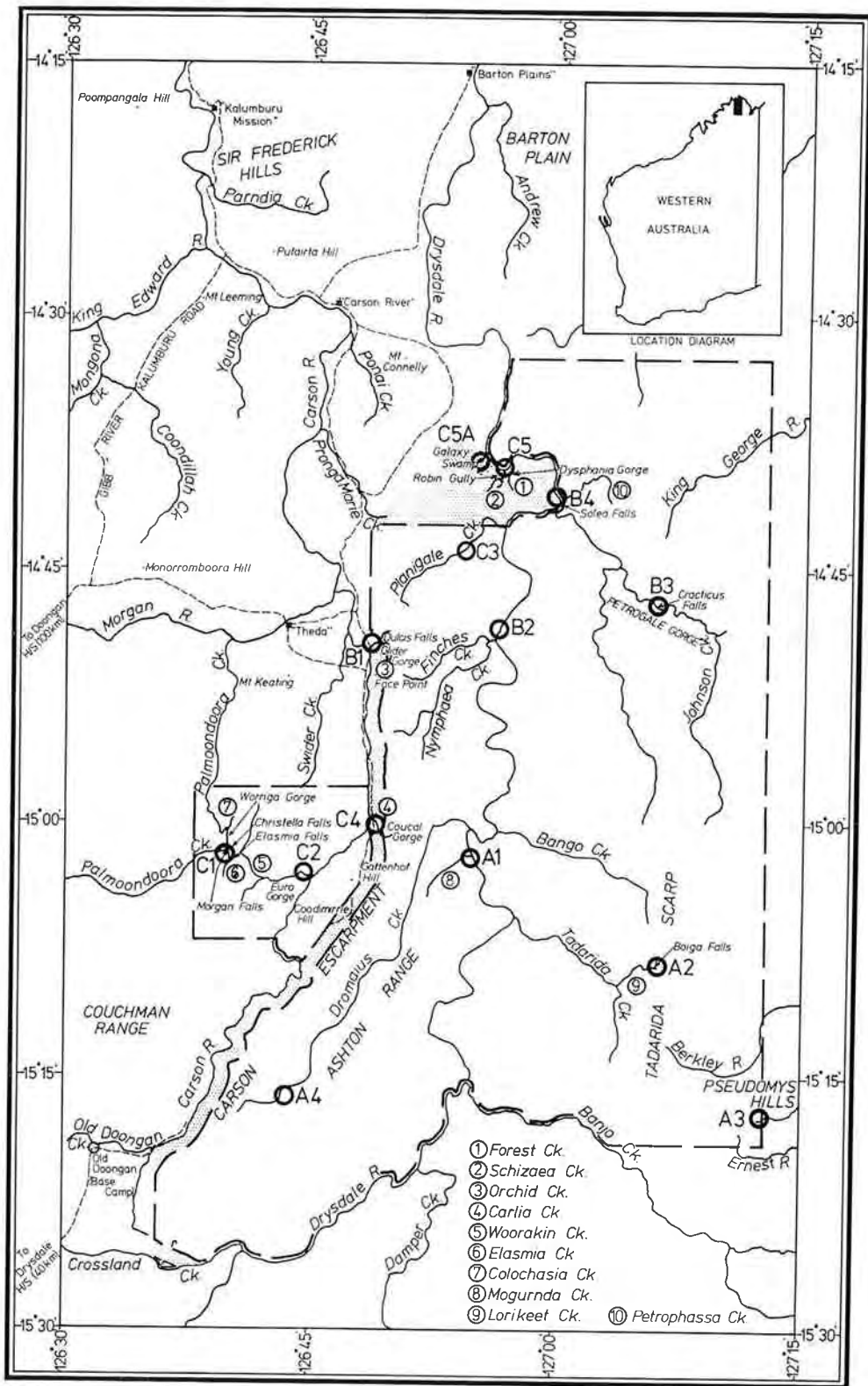
The Department of Lands and Surveys drew the map for Figure 1.

REFERENCES

- Miles, J. M. (1975). Narrative of the survey of the Prince Regent River Reserve. In "A biological survey of the Prince Regent River Reserve, north-west Kimberley, Western Australia in August, 1974." (Eds. J. M. Miles and A. A. Burbidge.) pp. 11-16. (Wildl. Res. Bull. West. Aust. No. 3.) (Dept. Fish. Wildl.: Perth.)
- Miles, J. M. and Burbidge, A. A. (Eds.) (1975). "A biological survey of the Prince Regent River Reserve, north-west Kimberley, Western Australia in August, 1974." (Wildl. Res. Bull. West. Aust. No. 3) (Dept. Fish. Wildl.: Perth.)

TABLE 4
SUPPLEMENTARY SURVEYS

| Date | Sites Visited | Purpose | Personnel |
|---------|---|--|-----------------------------------|
| 5/8/75 | Drysdale River at B4 Cape Londonderry area | Collection of plants and animals General survey of area | A. A. Burbidge A. S. George |
| 7/8/75 | (a) North-west Gully 14°34'S, 127°02'E (b) Upper Berkeley River 15°06'S, 127°14'E (c) Upper King George River 14°37'S, 127°14'E | Birds | L. A. Smith R. E. Johnstone |
| 10/8/75 | (a) Upper King George River 14°37'S, 127°14'E (b) Berkeley River 15°11'S, 127°13'E | Fish | J. B. Hutchins A. Chapman |
| 13/8/75 | (a) North-west Gully 14°34'S, 127°02'E (b) Southern Ashton Range 15°11'S, 126°48'E | Snails | B. R. Wilson S. M. Slack-Smith |
| 14/8/75 | Dysphania Gorge 14°39'S, 126°57'E | Insects | I. F. B. Common M. S. Upton |
| 19/8/75 | Western Area of Park | Vegetation Mapping | F. G. Smith A. S. George |
| 20/8/75 | Eastern Area of Park | Vegetation Mapping | F. G. Smith H. G. Hall |
| 21/8/75 | Dysphania Gorge 14°39'S, 126°57'E | Botany | A. S. George K. F. Kenneally |
| | | Birds | L. A. Smith |
| | | Mammals | W. K. Youngson |
| | | Snails | S. M. Slack-Smith |
| | Galaxy Swamp 14°37'S, 126°55'E | Botany | A. S. George K. F. Kenneally |
| | | Birds | L. A. Smith |



LEGEND

CAMPSITES C3 ○

RESERVE BOUNDARY ———

ROADS ———

RIVERS, CREEKS ———

PROPOSED EXTENTIONS ———

HOMESTEAD H/S

SCALE BAR

5 0 5 10 15 Miles

5 0 5 10 15 20 Kilometres

Figure 1—Drysdale River National Park showing topography and campsites.