

THE WILDLIFE OF SOME EXISTING AND PROPOSED NATURE RESERVES IN THE GIBSON, LITTLE SANDY AND GREAT VICTORIA DESERTS, WESTERN AUSTRALIA

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ABSTRACT

The Gibson Desert Nature Reserve and three proposed nature reserves (Lake Disappointment, Carnarvon Range and Yeo Lake Areas) were examined during November and December 1975 and March 1976. Mammals and reptiles were collected and observations made on birds. The environment of each area is described.

Sixteen species of native and four species of introduced mammals were recorded. The known range of *Ningauai ridei* was greatly extended. A number of medium sized mammals which were present in these deserts in the past have apparently disappeared.

One hundred and one species of birds have been recorded from the four areas—46 at Lake Disappointment, 58 at the Gibson Desert Nature Reserve, 66 at Carnarvon Range and 75 at Yeo Lake. Many species are highly nomadic and further trips would add to the lists.

Two species of frog and 58 species of reptile are known from the four areas. The number from each area is: 22 from Lake Disappointment Area, 18 from Gibson Desert Nature Reserve, 30 from Carnarvon Range Area and 40 from Yeo Lake Area. A further 7 species have been collected just outside the Yeo Lake Area. The last area has been more intensively collected than the other sites.

The system of desert conservation reserves proposed by the Conservation Through Reserves Committee in 1974 appears to include the major plant formations of the region and habitats of nearly all vertebrate animals although more work is needed to clarify the situation with respect to a number of mammal species.

PART I

BACKGROUND

by N. L. McKENZIE¹

BACKGROUND

During 1975 and 1976 the Western Australian Wildlife Research Centre organized three wildlife surveys into the desert regions of W.A. Their aim was to collect additional information on the vertebrate fauna of a series of desert conservation reserves proposed by the Conservation Through Reserves Committee (1974). The desert reserves proposed by the Committee were delineated from vegetational, geological and soils data. Knowledge of the fauna of each nature reserve and proposed reserve within the proposed series was inadequate, being derived from a few isolated collections or from an extrapolation of distributional data based on a knowledge of the habitat preferences of individual species.

The results of the first of these surveys have already been published (Burbidge *et al.* 1976); the results of the two subsequent surveys are reported here. The second survey lasted from 18 November to 4 December 1975 and involved five people and two four-wheel drive vehicles. Personnel were: A. A. Burbidge, N. L. McKenzie, W. K. Youngson and R. F. Dear from the Department of Fisheries and Wildlife, C. P. S. de Rebeira from the C.S.I.R.O. Division of Wildlife Research and P. J. Roberts from the National Parks

Board of Western Australia. The third survey again involved two four-wheel drive vehicles. Personnel were: N. L. McKenzie and W. K. Youngson from the Department of Fisheries and Wildlife, A. Chapman, R. E. Johnstone and L. A. Smith from the Western Australian Museum and C. P. S. de Rebeira from the C.S.I.R.O. Division of Wildlife Research.

Four areas were visited (Fig. 1):

1. Carnarvon Range Area—20 to 24 November 1975, 28 to 31 March 1976.
2. Lake Disappointment Area—26 November to 1 December 1975.
3. Yeo Lake Area—18 to 21 March 1976.
4. Gibson Desert Nature Reserve—23 to 27 March 1976.

REFERENCES

- Burbidge, A. A., McKenzie, N. L., Chapman, A. and Lambert, P. M. (1976). "The Wildlife of some Existing and Proposed Reserves in the Great Victoria and Gibson Deserts, Western Australia". Wildl. Res. Bull. West. Aust. No. 5, 1-16 (Dept. Fish. Wildl., Perth).
- Conservation Through Reserves Committee (1974). "Conservation Reserves in Western Australia. Report of the Conservation Through Reserves Committee to the Environmental Protection Authority". Cyclostyled.

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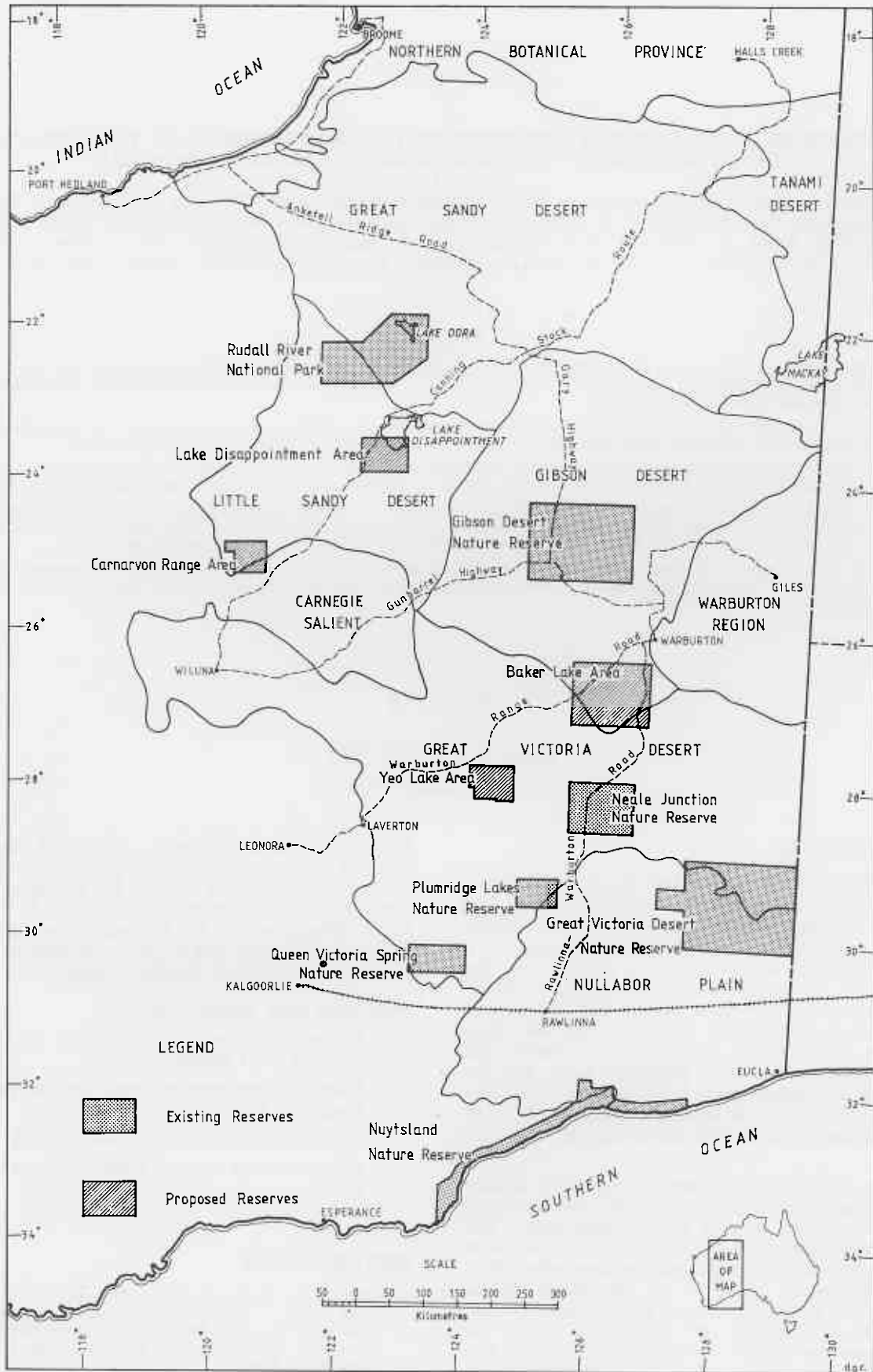


Figure 1—Existing and proposed conservation reserves in Western Australian deserts. Adapted from the Report by the Conservation Through Reserves Committee (1974) Nomenclature of deserts after Beard (1969).

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