24049 LAKE BARKER RESERVE

I visited this reserve from March 23rd until March 29th, 1969. I was accompanied by Mr. Trevor Evans and Mr. R.D. Royce, Curator of the W.A. Herbarium. Mr. J. Bannister, Curator of Mammals at the W.A. Museum and his assistant Mr. Ken Youngson joined us from the 25th until the 29th March.

We first travelled down the western side of the reserve on the road through Marvel Loch, Cheriton's Find and onto Mt. Holland. While in this area we inspected the two southern groups of claims, 689 to 692 and 693 to 705. The former is situated in country dominated by Gimlet and Boree and the area where the claims are situated does not appear to differ from the country immediately surrounding it. The latter series are situated on sandplain country dominated by Mallee. Much of the south western part of the reserve, including this area, had been burned recently, probably between 6 months and a year ago.

While in this area we visited ↑13523 (Water, 640 acres) which is situated within ↑24049. It contained extensive flat granite outcrops which harbour Amphibolurus ornatus. A well, which contained water, has been dug adjacent to rock and it was being visited by birds including Zebra Finches. I feel that the purpose of this reserve should be changed to Conservation of Flora and Fauna and vested in the same body as ↑24049, since it contains one of the few watering places in the reserve.

We then proceeded to Karalee and took the track south into the northern section of ↑24049. Before entering the reserve we passed through an area being cut over for firewood for No. 7 Pumping Station. The area was being cut over very heavily and photos were taken to illustrate the possible effect on ↑24049 should the current Forest Products Licenses be used. We then proceeded to the area where most of the claims are situated. The claims cover the major part of a Eucalyptus belt (mainly Gimlet and Salmon Gum) running N.W. - S.E. across the reserve. The claims extend N.W. into what was the Southern

Cross - Jaccoletti State Forest (reverted to Crown, Dec. 1966). There are a few other narrow belts of Eucalyptus in the reserve but they are narrow and would not harbour the same diversity of both plant and animal species.

Fauna

Late Summer is the worst time of the year to collect and observe fauna in the south-west. At the end of the summer many animals either reduce their activity to a minimum (in the case of mammals and some reptiles) or cease activity altogether (in the case of amphibians and some reptiles). Many birds which might be found in the area, particularly honeyeaters, would be absent because of the few flowers.

The following is a list of fauna collected or observed on the reserve:

Mammals (identified by Mr. J. Bannister)

Marsupials: Grey Kangaroo (Macropus fuliginosus)

Bats: Gould's Wattled Bat (Chalinolobus gouldi)
Little Brown Bat (Eptesicus pumilis)
Lesser Mastiff Bat (Tadarida planiceps)
White-striped Mastiff Bat (T. australis)

Introduced: Mouse (Mus musculus)
Rabbit, signs of dog and fox.

Birds - as per attached list

Reptiles (identified by Dr. G.L. Storr) - as per attached list.

Amphibia Cyrinia pseudinsignifere

Plants - see attached report by Mr. R.D. Royce.

11.2.69

A.A. BURBIDGE

BIRDS

Emu

Black-faced Cuckoo-Shrike

Western Magpie

Common Bronze-Wing

Raven

Twentyeight Parrot

Mulga Parrot

Western Rosella

Purple-crowned Lorikeets

Brown Hawk

Magpie Lark

Pipit

Red-capped Robin

Yellow Robin

Boobook Owl

Grey Butcher-bird

White-browed Babbler

Red-tipped Pardalote

Duskey Wood Swallow

Zebra Finch

Western Shrike-Thrush

Willy Wagtail

Grey Fantail

Rufous Tree-creeper

White-browed Tree-creeper

Weebil

Yellow-plumed Honeyeater

Brown Honeyeater

Red Wattle-bird

1 disused Mallee Fowl's nest

REPTILES RECORDED FROM RESERVE 24049 BY DR. A. BURBIDGE

Gekkonidae

- Diplodactylus maini
- Diplodactylus vittatus
- Crenadactylus ocellatus
- Oedura reticulata (MS name)
- Phyllurus milii
- Gehyra variegata

Agamidae

- Moloch horridus
- Amphibolurus maculatus griseus
- Amphibolurus cristatus
- Amphibolurus barbatus

Scincidae

- Egernia nitida sub. sp. nov. ?
- Ctenotus uber
- Ctenotus pantherinus
- Omolepida branchiale

Lake Barker Reserve

The Lake Barker Reserve is situated seventeen miles south of Yellowdine and lies astride the new Lake Johnston Road. The area was suggested for reservation by the former Government Botanist, Mr C.A. Gardner because it comprises areas of Eucalyptus woodland and several types of sandplain flora and is a typical example of the country occurring along the line of contact between the South West and Eremean Vegetation Provinces in that area. A great deal of endemism amongst the flora has been reported from many areas along this line of contact.

The timbered country occurs in bands through the reserve and alternates with sandplain areas. The largest of these timber areas occupies the central portion of the reserve and is an extension of the State Forest south of Mannel Loch. The Southern portion of the reserve is predominantly sandplain or mallee vegetation on sandy soil.

In the timbered areas Salmon-gum and Gimlet are the predominant trees with pockets of Morrel, Yorrel, Merrit and Euc. oleosa var. glauca. The under storey consists of a large number of shrubs which vary from one locality to the next. Most abundant are the Centipede Bush, Current Bush, Bitter Quandong and several species of Wattle and Grevillea. The several species of Boree are also common and in some localities comprise the dominant vegetation. Associated with this area are extensive thickets of regenerating Gimlet and Merrit as well as areas of mallee species. Prominent among these are York gum, Euc. calycogona and Euc. cylindrocarpa.

Other species of mallee extend into the sandplain area and occur under very different conditions. Prominent amongst these are, Euc. leptopoda, Euc. eremophila, Euc. annulata and Euc. burracoppinensis.

These mallees are associated with Native Pine, Sheoak of several species, Pink Boronia, and a great variety of Wattles, Myrtles, and species of the Banksia family.

../2

The sandplain areas show a great variety of forms. The northern areas support a typical Wodjil association, while Tammar occurs along the western boundary. The south western sandplain is dominated by mallee and tall Sheoak, while in the south and south east the low treeless vegetation is dominated by a large number of species of the Banksia family.

Perhaps the outstanding feature of the reserve is its great variety of vegetation. Although the timber areas have been very severely cut over for mining timber, fire wood and for fence posts, the damage is not completely irreparable. The environment at present is very much disturbed but in time, provided there is no further interference the trees and shrubs will more or less regain their original density and character. It is important that this area of typical gold field forest, which is the only large area in a flora or fauna reserve, should be preserved for posterity.

The sandplain is a very rich area and contains a diversity of vegetation types. The species of "wildflowers" as well as shrubs and small trees are very numerous. They consist principally of members of the Banksia family, as well as many representatives of the Myrtle and Pea flowered families. Sedges, Rushes, Lilies and many other types are represented, and the spring time display in these sandplain areas is as spectacular as in other similar areas.

The mineral claims at present under consideration are situated in both the forest and sandplain areas. The greatest and most valuable part of the forest area of the Reserve occurs in the central portion as a continuation of the State Forest. It is this area on which the claims have been surveyed and something like 50% of the area has been pegged out. The pegging continues into Forest outside the reserve boundary, and a very large area is involved here. It seems unnecessary to destroy a part of such a valuable portion of the reserve when extensive areas of similar country are available outside.

Claims are also pegged in sandplain areas in the south

../3

western portion of the Reserve. If these claims are to be developed, they must presumably be worked by open-cut methods, and the effect of this on the vegetation will be catastrophic. The open cut and the dumps of spoil will completely destroy large areas of vegetation.

While vegetation can eventually recover to a large extent when disturbed by timber cutting, there is little prospect of a recovery following mining operations. A certain amount of regeneration will occur amongst the hardier types of trees and shrubs, but it is inevitable that the native plants will largely be replaced by alien weeds. No amount of finance could economically restore the countryside after mining has ceased.

Native mammals of Lake Barker Reserve

Definitely recorded

Marsupials:	Grey kangaroo	Macropus fuliginosus
Placentals:	Little flat bat	Tadarida planiceps
	White striped mastiff bat	Tadarida australis
	Gould's wattled bat	Chalinolobus gouldi
	Little brown bat	Eptesicus pumilus

Possibly to be found there

Marsupials:	Brush tailed wambenger	Phascogale tapoa-tafa
	Fat tailed marsupial mouse	Sminthopsis crassicaudata
	Common marsupial mouse	Sminthopsis murina
	Native cat	Dasyurus geoffroyi
	Hopping marsupial mouse	Antechinomys spenceri
	Brush tailed possum	Trichosurus vulpecula
	Pygmy possum	Cercartetus concinnus
	** Rabbit eared bandicoot ← (Dalgyte) Macrotis lagotis	
	Brush tailed rat kangaroo (Woylie)	Bettongia penicillata
	* Lesueur's rat kangaroo (Boodie)	Bettongia lesueur
	* Brown hare wallaby	Lagorchestes hirsutus
	* Banded hare wallaby	Lagostrophus fasciatus
	* Nail tailed wallaby	Onychogalea lunata
Placentals:	Dingo	Canis familiaris
	Hopping mouse	Notomys mitchelli
	Ashy grey mouse	Pseudomys albocinereus
	Lesser long eared bat	Nyctophilus geoffroyi

** Extremely rare if not extinct elsewhere on the mainland.

** Rare elsewhere on the mainland.

8 May 1969

BARKER LAKE RESERVE (NO. 24049)

This reserve is situated to the south east of Southern Cross, and comprises over ~~156,000~~ 516,000 acres. Its northern boundary is 14 miles to the south of the Kalgoorlie Railway Line between Yellowdine and Koorarawalyee, and it extends southwards to within 8 miles of Mt. Holland. It was established in 1954 as a Class C Reserve for the preservation of flora and fauna.

It is of great significance as a flora reserve since it is within the line of overlap of the floristic elements of the South Western and Eremean Flora Provinces. This mingling of two flora types has enabled a greater development of local species than is usual. This together with the natural activity of selection within the existing flora has produced a number of species which are known only from this area. Prominent amongst these are the mallee Eucalyptus steedmanii C.A. Gardn.; the Native Pomegranate, Balaustion pulcherrimum Hook.; Banksia audax C.A. Gardn., and a recently discovered unnamed species of Verticordia or Featherflower

The area consists principally of sclerophyllous woodland developed on soils derived from metamorphosed basic rocks, acid rocks and some metasediments, all of Precambrian age. In addition there is a development of sandplain in certain sections.

This large area is ideal for the creation of a Class A Reserve for the protection of these locally endemic species and for the preservation of an area of goldfields flora which is being destroyed so rapidly by timber-cutting and total clearing for agriculture.

The area contains a number of interesting birds including honey eaters, mallee fowl, white faces and thorn bills. The reptile fauna is also of interest and includes the unique Moloch lizard or mountain devil. The mammals of the area are also of interest as they include overlapping representatives of both inland a d southern species.

Due to its low average rainfall (10-11 inches per annum), the area cannot be regarded as safe agriculturally and if cleared and inadequately cultivated, could breed large numbers of grass-hoppers.

(Sgd) R. D. Royce
OFFICER IN CHARGE
BOTANY BRANCH

(Sgd) C.F.H. Jenkins.
CHIEF
DIVISION OF BILOGICAL SERVICES