

BIOLOGICAL SURVEY OF

BARLEE RANGE NATURE RESERVE

Project (N92/5)

Progress Report 7

Prepared by: Stephen van Leeuwen

Date: August 1994

TITLE OF PROJECT:

Biological survey of the Barlee Range Nature Reserve (A ↑26808)

AGENCY:

Western Australian Department of Conservation and Land Management (CALM) (undertaken jointly by the Science and Information Division and the Pilbara Regional office).

PROJECT SUPERVISOR:

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PROJECT OFFICERS:

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2. Peter Kendrick
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SCOPE OF PROPOSAL:

- a. Select sites that represent the array of communities typical of the Barlee Range.
- b. At all sites establish and sample permanent quadrats recording landform unit, species composition, habitat type and vegetation associations present. Permanent quadrats will enable, through long-term monitoring, the documentation of change over time and after environmental perturbations.
- c. Analyse data sets for each biotic group sampled (flora/vegetation, mammals, birds, reptiles, amphibians and ants) discussing patterns of community structure, species richness and distribution. Prepare descriptions of vegetation associations and landform units present and map their distribution within the reserve.
- d. Publish results of the survey and subsequent analyses. Discuss implications of these results with reference to the representativeness of the nature reserve and its nature conservation values. Make recommendations for management where appropriate.

WORK COMPLETED

Over the past three months one field trip to the Barlee Range Nature Reserve was completed as part of this project. Concurrently, laboratory and office work continued on the identification, databasing and incorporation of specimens into herbaria and museums.

The one field trip undertaken between the 9th and 24th of June, involved the systematic sampling of all permanent sample sites and the random opportunistic sampling of other areas within the reserve. For example, an additional four permanently marked vegetation quadrats were established and sampled, and random opportunistic sampling of the flora occurred at another 52 sites within the reserve. Numerous flora and fauna specimens were collected, including many taxa which were new records for the reserve. Interesting observations were the recognition of an active Pebble-mound mouse mound (*Pseudomys chapmannii*), the identification of a significant vertebrate sub-fossil deposit and the collection of several typically central Pilbara and/or Kimberley plant species (*Gastrolobium grandiflorum*, *Acacia cowleana*, *Vallisneria spiralis*). The success of the field trip was enhanced by the collection of several flowering specimens of a novel species of *Wurmbea*, which will shortly be described, and the trapping of two specimens of the Long-tailed Dunnart (*Pseudomys longicaudata*), a species listed as 'Reserve' fauna on CALM's Specially Protected Fauna list.

Progress on this project with relevance to each of the biotic groups being examined is outlined in the following sections.

Flora and Vegetation

A total of 281 plant species have so far been recorded in the field, however, this number will increase upon identification and processing of specimens collected during the June field trip. Appendix One provides a list of the species recorded within the reserve. This list is a compilation of the species collected in the reserve during this project (252 taxa) and those collected by R.D. Royce in 1961.

Species of interest collected and recorded to date include;

Wurmbea sp. - a novel species apparently restricted to the Barlee Range where it has been recorded from three localities. This species will shortly be described in the Western Australian Herbariums taxonomic journal 'Nuytsia'. This species was discovered as a result of this project.

Vallisneria spiralis - An aquatic species inhabiting deep permanent pools in some of the shaded watercourses found in the reserve. This species is predominantly restricted in the Kimberley Region.

Tecticornia verrucosa - A disjunctly distributed species inhabiting claypans in remote arid regions of northern Australia.

Indigofera sp. - An undescribed taxon which, until this project, appeared to be restricted to hilltops in the Hamersley Range.

Mammals

A total of 22 indigenous and five introduced mammal species have been recorded from the reserve (Appendix two). This list is only temporary as identifications are only tentative and require confirmation by the Western Australian Museum.

The most interesting mammal record is that of the Pebble-mound mouse which has an extant distribution that is principally confined to the Hamersley Range and Oakover Valley physiogeographic districts. This taxon is listed as 'a species which is rare or likely to become extinct' on the Schedule of Specially

Protected Fauna. Another interesting mammal record is that obtained for the Long-tailed Dunnart. This species is listed on CALM's reserve fauna list as it is currently not considered threatened, however has been determined to be at risk of becoming threatened if impacts on known populations have a deleterious effect. This species has previously been recorded in the Hamersley Range, at Mt Augustus and in the Gibson Desert where it is found inhabiting steep rocky slopes and breakaway habitats.

The identification of a significant sub-fossil vertebrate deposit will provide valuable material for the Western Australian Museum and provide an insight into the evolution and extinction of the fauna of north western Australia. A sample of this material collected from the reserve in August 1993 was determined to contain mammalian material of the following taxa; *Chalinolobus gouldii* (Gould's Wattle Bat), *Notomys longicaudatus* (Long-tailed Hopping-mouse), *Pseudomys nanus/fieldi* (Western Chestnut - Alice Springs Mouse), *Leporillus apicalis* (Lesser Stick-nest Rat) and *Rattus tunneyi* (Pale Field-rat). Only two of these species, the bat and rat, are extant in the region, while the others are either presumed extinct or occur in the Kimberleys.

Birds

A total of 101 bird species have so far been recorded from the reserve (Appendix Three). During the most recent trip an additional nine species were added to the reserve's list. The new species included the Rufous Night Heron, Maned Duck, Spotted Harrier, Elegant Parrot, Sacred Kingfisher, White-fronted Honeyeater, Australian Magpie, Yellow White-eye and Eurasian Coot. The most interesting species to be added to the species list is the Elegant Parrot. The record for this reserve represents a significant range extension for the species which is primarily confined to the south west of Western Australia, not extending north of latitude 30° S. The record for the Yellow White-eye is also interesting as this species is primarily restricted to coastal mangrove forests of northern Australia.

Reptile and Amphibians

Appendix Four provides a list of the 63 species of reptiles recorded for the reserve. The most interesting species observed so far has been the Olive Python (*Morelia olivacea barroni*) which is considered to be rare and is listed as a Schedule 1 species (rare or likely to become extinct) on CALM's Specially Protected Fauna list. It is anticipated that the number of reptiles recorded in the reserve will significantly increase following the next sampling trip which is scheduled for November.

Five frog species have been collected from the reserve (Appendix Five). All species represent typical arid zone assemblages. The recollection of *Pseudophryne douglasi* from the 'Type' locality is worthy of note. This species has only been collected on three occasions from three separate locations in the Pilbara - Ashburton region. This species is currently under consideration for addition to the reserve fauna list on the Schedule of Specially Protected Fauna.

Invertebrates

No sorting of invertebrate samples collected through pitfall trapping has been undertaken, however it is anticipated that this will commence during the coming summer months.

During the preceding field trip an attempt was made to document the mollusc fauna of the reserve which resulted in the collection of eleven different taxa. Five of the species were representative of aquatic habitats and are widely distributed in pools throughout the region. The remaining specimens represented six taxa of land snails, three of which appear to be undescribed scientifically. These land snails were common in certain parts of the reserve, notably on or in close proximity to dolerite outcrops. The major local family, the Camaenidae, is represented by three species, two within the genus *Rhagada*, of which two appear to be undescribed. One species in the family Orthalicidae (*Bothriembryon* sp.), which appears to have close affinities with a Millstream - Hamersley Range taxon, also appears to be undescribed. The identification of a *Pupoides* taxon, which also appears to be undescribed, was not surprising as it is a widely distributed taxonomic group in the Pilbara - Shark Bay region. The final species recorded was *Eremopeas interioris* which has previously been collected from the Millstream - Hamersley Range region where it inhabits refugial sites such as deeply fractured and cavernous rocks.

The next field trip to the reserve will be undertaken in mid-November and will be for the specific purpose of collecting fauna specimens. Particular emphasis will be directed towards sampling the reptile and bat fauna. The next flora sampling trip to the reserve is not planned until after sufficient rains and will be designed to facilitate the sampling of annual plant assemblages within the reserve. Between field trips, work will continue on the identification, databasing and incorporation of specimens collected from within the reserve.

EXPENDITURE TO DATE

An expenditure statement from the Acting Administration Assistant in the Pilbara Regional Office is attached as Appendix Six. As of the 28th of August a total of \$12 506 or 62% of the \$20 000 budget had been consumed. Expenditure over the past few months has been \$831, of which \$409 was attributed to expenditure on materials and \$422 to expenditure on plant. A breakdown of budget expenditure between April and the current progress report is provided in Table 1.

To date, 76% of NEGP fund expenditure has been directed towards the purchase of materials and equipment required to undertake the survey. The remaining 24% has been spent on vehicle hire changes and running fees.

A cost overrun in the budget for this project is not anticipated.

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Table 1 Breakdown of expenditure of NEGP funds for the Biological Survey of Barlee Range Nature Reserve project for the period May - August 1994.**Materials & Equipment**

Month	Item	Amount (\$)	Account Balance (\$)
May 94	Field Equipment	51	51
June 94	Plant Running Fee	312	363
July 94	Herbarium Consumables	134	497
July 94	Field Equipment	200	697
July 94	Plant Standing Fee	110	807
Aug 94	Field Equipment	24	831

TOTAL EXPENDITURE (5/94 - 8/94)

Item	Account Balance (\$)
Materials and equipment	409
Plant and vehicle running	422
<u>Total</u>	<u>831</u>

TOTAL PROJECT EXPENDITURE

Item	Account Balance (\$)
Materials and equipment	9 556
Plant and vehicle running	2 950
<u>Total</u>	<u>12 506</u>

APPENDIX ONE

Barlee Range Nature Reserve

Flora List

BARLEE RANGE NATURE RESERVE**FLORA LIST****Adiantaceae***Cheilanthes**brownii**Cheilanthes**sieberi*subsp. *sieberi***Typhaceae***Typha**domingensis***Potamogetonaceae***Potamogeton**tricarinatus***Poaceae***Aristida**burbidgeae**Aristida**contorta**Cenchrus**ciliaris**Cymbopogon**ambiguus**Cymbopogon**bombycinus**Digitaria**brownii**Enneapogon**caerulescens**Enneapogon**sp.**Eragrostis**cumingii**Eragrostis**dielsii**Eragrostis**eriopoda**Eriachne**aristidea**Eriachne**dominii**Eriachne**mucronata**Eriachne**mucronata*var. *desertorum**Eulalia**fulva**Genus**sp.**Paspalidium**rarum**Seteria**verticillata**Triodia**pungens**Triodia**sp.***Cyperaceae***Cyperus**cunninghamii**Cyperus**iria**Cyperus**vaginatus**Eleocharis**geniculata***Asphodelaceae***Bulbine**semibarbata***Colchicaceae***Wurmbea**sp.***Moraceae***Ficus**platypoda*var. *minor**Ficus**platypoda*var. *platypoda***Proteaceae***Grevillea**stenobotrya**Hakea**suberea*

BARLEE RANGE NATURE RESERVE**FLORA LIST (cont.)****Santalaceae**

<i>Exocarpus</i>	<i>aphyllus</i>
<i>Santalum</i>	<i>lanceolatum</i>

Loranthaceae

<i>Amyema</i>	<i>fitzgeraldii</i>		
<i>Amyema</i>	<i>gibberulum</i>	var.	<i>gibberulum</i>
<i>Amyema</i>	<i>hillianum</i>		
<i>Lysiana</i>	<i>aff. casuarinae</i>		
<i>Lysiana</i>	<i>causuarinae</i>		

Chenopodiaceae

<i>Atriplex</i>	<i>codonocarpa</i>		
<i>Chenopodium</i>	<i>cristatum</i>		
<i>Chenopodium</i>	<i>melanocarpum</i>	forma	<i>leucocarpum</i>
<i>Dysphania</i>	<i>glomulifera</i>	subsp.	<i>eremaea</i>
<i>Dysphania</i>	<i>rhadinostachya</i>	subsp.	<i>inflata</i>
<i>Enchyleana</i>	<i>tomentosa</i>		
<i>Maireana</i>	<i>? villosa</i>		
<i>Maireana</i>	<i>carnosa</i>		
<i>Maireana</i>	<i>georgei</i>		
<i>Maireana</i>	<i>melanocoma</i>		
<i>Maireana</i>	<i>planifolia</i>		
<i>Maireana</i>	<i>thesioides</i>		
<i>Maireana</i>	<i>triptera</i>		
<i>Rhagodia</i>	<i>eremaea</i>		
<i>Salsola</i>	<i>kali</i>		
<i>Sclerolaena</i>	<i>beaugleholei</i>		
<i>Sclerolaena</i>	<i>cuneata</i>		
<i>Sclerolaena</i>	<i>densiflora</i>		
<i>Sclerolaena</i>	<i>eriacantha</i>		
<i>Sclerostegia</i>	<i>disarticulata</i>		
<i>Tecticornia</i>	<i>verrucosa</i>		

Amaranthaceae

<i>Amaranthus</i>	<i>mitchellii</i>		
<i>Amaranthus</i>	<i>pallidiflorus</i>		
<i>Amaranthus</i>	<i>sp</i>		
<i>Gomphrena</i>	<i>cunninghamii</i>		
<i>Ptilotus</i>	<i>aeroides</i>		
<i>Ptilotus</i>	<i>calostachyus</i>	var.	<i>calostachyus</i>
<i>Ptilotus</i>	<i>exaltatus</i>		
<i>Ptilotus</i>	<i>fusiformis</i>	var.	<i>fusiformis</i>
<i>Ptilotus</i>	<i>helipteroideus</i>		
<i>Ptilotus</i>	<i>obovatus</i>		
<i>Ptilotus</i>	<i>sp</i>		

Nyctaginaceae

<i>Boerhavia</i>	<i>coccinea</i>
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BARLEE RANGE NATURE RESERVE**FLORA LIST (cont.)**

<i>Boerhavia</i>	<i>schomburgkiana</i>		
<i>Commicarpus</i>	<i>australis</i>		
Gyrostemonaceae			
<i>Codonocarpus</i>	<i>cotinifolius</i>		
Aizoaceae			
<i>Mollugo</i>	<i>molluginea</i>		
<i>Trianthema</i>	<i>glossostigma</i>		
<i>Zaleya</i>	<i>galericulata</i>		
Molluginaceae			
<i>Glinus</i>	<i>oppositifolius</i>		
Portulacaceae			
<i>Calandrinia</i>	<i>polyandra</i>		
Caryophyllaceae			
<i>Polycarpaea</i>	<i>longiflora</i>		
Lauraceae			
<i>Cassytha</i>	<i>? filiformis</i>		
Papaveraceae			
<i>Argemone</i>	<i>ochroleuca</i>		
Capparaceae			
<i>Capparis</i>	<i>spinosa</i>	var.	<i>nummularia</i>
<i>Cleome</i>	<i>viscosa</i>		
Brassicaceae			
<i>Lepidium</i>	<i>biplicatum</i>		
<i>Lepidium</i>	<i>muelleriferdinandii</i>		
<i>Lepidium</i>	<i>oxytrichum</i>		
<i>Lepidium</i>	<i>pedicellosum</i>		
<i>Lepidium</i>	<i>platypetallum</i>		
<i>Lepidium</i>	<i>sp.</i>		
<i>Stenopetalum</i>	<i>anfractum</i>		
Surianaceae			
<i>Stylobasium</i>	<i>spathulatum</i>		
Mimosaceae			
<i>Acacia</i>	<i>? arida</i>		
<i>Acacia</i>	<i>? coolgardiensis</i>	subsp.	<i>"effusa"</i>
<i>Acacia</i>	<i>acradenia</i>		
<i>Acacia</i>	<i>adoxa</i>	var.	<i>adoxa</i>
<i>Acacia</i>	<i>ancistrocarpa</i>		
<i>Acacia</i>	<i>aneura</i>	var.	<i>aneura</i>
<i>Acacia</i>	<i>arida</i>		
<i>Acacia</i>	<i>bivenosa</i>		
<i>Acacia</i>	<i>citrinoviridis</i>		
<i>Acacia</i>	<i>coriacea</i>	subsp.	<i>pendens</i>

BARLEE RANGE NATURE RESERVE**FLORA LIST (cont.)**

<i>Acacia</i>	<i>farnesiana</i>		
<i>Acacia</i>	<i>kempeana</i>		
<i>Acacia</i>	<i>ligulata</i>		
<i>Acacia</i>	<i>maitlandii</i>		
<i>Acacia</i>	<i>marramamba</i>		
<i>Acacia</i>	<i>pruinocarpa</i>		
<i>Acacia</i>	<i>pruinocarpa</i>		
<i>Acacia</i>	<i>pyrifolia</i>		
<i>Acacia</i>	<i>retivenea</i>		
<i>Acacia</i>	<i>retivenea</i>	subsp.	<i>clandestina</i>
<i>Acacia</i>	<i>sclerosperma</i>	subsp.	<i>sclerosperma</i>
<i>Acacia</i>	<i>sp.</i>		
<i>Acacia</i>	<i>sp. nov. "barlee range 1"</i>		
<i>Acacia</i>	<i>stowardii</i>		
<i>Acacia</i>	<i>synchronicia</i>		
<i>Acacia</i>	<i>tetragonophylla</i>		
<i>Acacia</i>	<i>trachycarpa</i>		
<i>Acacia</i>	<i>victoriae</i>		
<i>Acacia</i>	<i>wanyu</i>		
<i>Acacia</i>	<i>xiphophylla</i>		

Caesalpinaceae

<i>Petalostylis</i>	<i>labicheoides</i>		
<i>Senna</i>	<i>artemisioides</i>		
<i>Senna</i>	<i>artemisioides</i>	subsp.	? <i>symonii</i>
<i>Senna</i>	<i>artemisioides</i>	subsp.	<i>helmsii</i>
<i>Senna</i>	<i>artemisioides</i>	subsp.	<i>oligophylla</i>
<i>Senna</i>	<i>artemisioides</i>	subsp.	<i>stricta</i>
<i>Senna</i>	<i>cardiosperma</i>	subsp.	<i>pilocarina</i>
<i>Senna</i>	<i>glutinosa</i>	subsp.	"unsorted"
<i>Senna</i>	<i>glutinosa</i>	subsp.	<i>aff. x luerksenii</i>
<i>Senna</i>	<i>glutinosa</i>	subsp.	<i>chatelainiana</i>
<i>Senna</i>	<i>glutinosa</i>	subsp.	<i>pruinosa</i>
<i>Senna</i>	<i>glutinosa</i>	subsp.	<i>x luerksenii</i>
<i>Senna</i>	<i>notabilis</i>		
<i>Senna</i>	<i>sp.</i>		
<i>Senna</i>	<i>venusta</i>		

Papilionaceae

<i>Crotalaria</i>	<i>medicaginea</i>		
<i>Crotalaria</i>	<i>novae-hollandiae</i>	subsp.	<i>novae-hollandiae</i>
<i>Glycine</i>	<i>canescens</i>		
<i>Gompholobium</i>	<i>polyzygum</i>		
<i>Indigofera</i>	<i>monophylla</i>		
<i>Indigofera</i>	<i>sp.</i>		
<i>Isotropis</i>	<i>atropurpurea</i>		
<i>Lotus</i>	<i>cruentus</i>		
<i>Psoralea</i>	<i>leucantha</i>		

BARLEE RANGE NATURE RESERVE**FLORA LIST (cont.)**

<i>Rhynchosia</i>	<i>minima</i>		
<i>Sesbania</i>	<i>cannabina</i>		
<i>Sesbania</i>	<i>formosa</i>		
<i>Swainsona</i>	<i>forrestii</i>		
<i>Swainsona</i>	<i>incei</i>		
<i>Swainsona</i>	<i>kingii</i>		
<i>Swainsona</i>	<i>leeana</i>		
<i>Templetonia</i>	<i>egena</i>		
<i>Tephrosia</i>	<i>aff. supina</i>		
<i>Tephrosia</i>	<i>clementii</i>		
<i>Tephrosia</i>	<i>rosea</i>		
<i>Tephrosia</i>	<i>rosea</i>	var.	<i>glabrior</i>
<i>Tephrosia</i>	<i>uniovulata</i>		
Geraniaceae			
<i>Erodium</i>	<i>aureum</i>		
Zygophyllaceae			
<i>Tribulus</i>	<i>macrocarpus</i>		
<i>Tribulus</i>	<i>platypterus</i>		
<i>Tribulus</i>	<i>terrestris</i>		
<i>Zygophyllum</i>	<i>iodocarpum</i>		
<i>Zygophyllum</i>	<i>sp</i>		
Euphorbiaceae			
<i>Adriana</i>	<i>tomentosa</i>		
<i>Euphorbia</i>	<i>careyi</i>		
<i>Euphorbia</i>	<i>drummondii</i>		
<i>Euphorbia</i>	<i>tannensis</i>	subsp.	<i>eremophila</i>
<i>Phyllanthus</i>	<i>maderaspatensis</i>	var.	<i>angustifolius</i>
Stackhousiaceae			
<i>Stackhousia</i>	<i>intermedia</i>		
Sapindaceae			
<i>Dodonaea</i>	<i>pachyneura</i>		
<i>Dodonaea</i>	<i>petiolaris</i>		
Tiliaceae			
<i>Corchorus</i>	<i>crassifolius</i>		
<i>Corchorus</i>	<i>walcottii</i>		
<i>Triumfetta</i>	<i>aff. appendiculata</i>		
<i>Triumfetta</i>	<i>chaetocarpa</i>		
<i>Triumfetta</i>	<i>sp.</i>		
Malvaceae			
<i>Abutilon</i>	<i>sp.</i>		
<i>Gossypium</i>	<i>robinsonii</i>		
<i>Hibiscus</i>	<i>sp.</i>		
<i>Lawrencia</i>	<i>densiflora</i>		
<i>Sida</i>	<i>sp.</i>		

BARLEE RANGE NATURE RESERVE**FLORA LIST (cont.)****Sterculiaceae**

<i>Keraudrenia</i>	<i>integrifolia</i>
<i>Rulingea</i>	<i>kempeana</i>
<i>Rulingea</i>	<i>rotundifolia</i>
<i>Waltheria</i>	<i>indica</i>

Frankeniaceae

<i>Frankenia</i>	<i>cordata</i>
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Violaceae

<i>Hybanthus</i>	<i>aurantiacus</i>
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Lythraceae

<i>Ammannia</i>	<i>baccifera</i>
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Myrtaceae

<i>Eucalyptus</i>	<i>ferriticola</i>
<i>Eucalyptus</i>	<i>leucophloia</i>
<i>Melaleuca</i>	<i>argentea</i>
<i>Melaleuca</i>	<i>sp.</i>

Haloragaceae

<i>Haloragis</i>	<i>gossei</i>
<i>Myriophyllum</i>	<i>verrucosum</i>

Apiaceae

<i>Trachymene</i>	<i>aff. glaucifolia</i>
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Oleaceae

<i>Jasminum</i>	<i>didymum</i>	subsp.	<i>lineare</i>
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Asclepiadaceae

<i>Cynanchum</i>	<i>sp. nov. "sp 1 - marandoo"</i>		
Genus	<i>sp</i>		
<i>Rhycharrhena</i>	<i>linearis</i>		
<i>Sarcostemma</i>	<i>viminale</i>	subps.	<i>australe</i>

Convolvulaceae

<i>Bonamia</i>	<i>rosea</i>
<i>Evolvulus</i>	<i>alsionoides</i>
<i>Ipomoea</i>	<i>muelleri</i>
<i>Porana</i>	<i>commixta</i>

Boraginaceae

<i>Halgania</i>	<i>sp. nov. "aff solanacea"</i>
<i>Heliotropium</i>	<i>aff. undulatum</i>
<i>Heliotropium</i>	<i>curassavicum</i>
<i>Heliotropium</i>	<i>heteranthum</i>
<i>Trichodesma</i>	<i>zeylanicum</i>

Verbenaceae

<i>Clerodendrum</i>	<i>floribundum</i>	var.	<i>angustifolium</i>
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BARLEE RANGE NATURE RESERVE**FLORA LIST (cont.)****Lamiaceae**

<i>Plectranthus</i>	<i>intraterraneus</i>
<i>Prostanthera</i>	<i>albiflora</i>

Solanaceae

<i>Datura</i>	<i>leichhardtii</i>	
<i>Nicotiana</i>	<i>benthamiana</i>	
<i>Nicotiana</i>	<i>occidentalis</i>	subsp. <i>occidentalis</i>
<i>Solanum</i>	<i>? sturtianum</i>	
<i>Solanum</i>	<i>diversiflorum</i>	
<i>Solanum</i>	<i>lasiophyllum</i>	
<i>Solanum</i>	<i>sp.</i>	

Scrophulariaceae

<i>Mimulus</i>	<i>gracilis</i>
<i>Peplidium</i>	<i>sp.</i>
<i>Stemodia</i>	<i>grossa</i>

Acanthaceae

<i>Dipteracanthus</i>	<i>sp.</i>
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Myoporaceae

<i>Eremophila</i>	<i>"phyllopoda"</i>
<i>Eremophila</i>	<i>cuneifolia</i>
<i>Eremophila</i>	<i>exilifolia</i>
<i>Eremophila</i>	<i>forrestii</i>
<i>Eremophila</i>	<i>fraseri</i>
<i>Eremophila</i>	<i>latrobei</i>
<i>Eremophila</i>	<i>longifolia</i>
<i>Eremophila</i>	<i>sp</i>

Rubiaceae

<i>Canthium</i>	<i>latifolium</i>
<i>Canthium</i>	<i>lineare</i>
<i>Oldenlandia</i>	<i>crouchiana</i>

Cucurbitaceae

<i>Cucumis</i>	<i>melo</i>
<i>Mukia</i>	<i>maderaspatana</i>

Lobeliaceae

<i>Lobelia</i>	<i>heterophylla</i>
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Goodeniaceae

<i>Dampiera</i>	<i>candicans</i>	
<i>Goodenia</i>	<i>forrestii</i>	
<i>Goodenia</i>	<i>scaevolina</i>	subsp. <i>stobbsiana</i>
<i>Goodenia</i>	<i>sp.</i>	
<i>Goodenia</i>	<i>stobbsiana</i>	
<i>Goodenia</i>	<i>tenuiloba</i>	
<i>Scaevola</i>	<i>sp.</i>	

BARLEE RANGE NATURE RESERVE**FLORA LIST (cont.)**

<i>Scaevola</i>	<i>spinescens</i>
Stylidiaceae	
<i>Stylidium</i>	<i>alsinoides</i>
Asteraceae	
<i>Actinobole</i>	<i>oldfieldiana</i>
<i>Angianthus</i>	? <i>milnei</i>
<i>Angianthus</i>	<i>milnei</i>
<i>Bidens</i>	<i>bipinnata</i>
<i>Brachycome</i>	<i>ciliocarpa</i>
<i>Calocephalus</i>	<i>knappii</i>
<i>Calocephalus</i>	<i>sp.</i>
<i>Calocephalus</i>	<i>sp. "aromatic" {pilbara - deserts}</i>
<i>Calotis</i>	<i>hispidula</i>
<i>Calotis</i>	<i>plumulifera</i>
<i>Centipeda</i>	<i>minima</i>
<i>Decazesia</i>	<i>hecatcephala</i>
<i>Gnephosis</i>	<i>arachnoides</i>
<i>Gnephosis</i>	<i>brevifolia</i>
<i>Helipterum</i>	<i>forrestii</i>
<i>Olearia</i>	<i>xerophila</i>
<i>Pluchea</i>	<i>rubellifolia</i>
<i>Pterocaulon</i>	<i>sphacelatum</i>
<i>Rhodanthe</i>	? <i>margarethae</i>
<i>Rhodanthe</i>	<i>frenchii</i>
<i>Rhodanthe</i>	<i>maryonii</i>
<i>Rhodanthe</i>	<i>propinqua</i>
<i>Rhodanthe</i>	<i>stricta</i>
<i>Schoenia</i>	<i>ayersii</i>
<i>Senecio</i>	<i>glossanthus</i>
<i>Sonchus</i>	<i>oleraceus</i>
<i>Streptoglossa</i>	<i>adscendens</i>
<i>Streptoglossa</i>	<i>bubakii</i>
<i>Streptoglossa</i>	<i>cylindriceps</i>

APPENDIX TWO

Barlee Range Nature Reserve

Mammal List

BARLEE RANGE NATURE RESERVE**MAMMAL LIST****Tachyglossidae***Tachyglossus aculeatus*

Short-beaked Echidna

Dasyurids*Ningau sp.**Planigale sp.**Dasykaluta rosamondae*

Little Red Antechinus

Sminthopsis longicaudata

Long-tailed Dunnart

Ningau timealeyi

Pilbara Ningau

Sminthopsis macroura

Stripe-faced Dunnart

Macropodidae*Petrogale sp.**Macropus robustus erubescens*

Wallaroo

Emballonuridae*Taphozous sp.**Taphozous georgianus*

Common Sheath-tail-bat

Molossidae*Chaerophon jobensis*

Northern Mastiff-bat

Vespertilionidae*Eptesicus finlaysoni**Genus sp.**Chalinolobus gouldii*

Gould's Wattled Bat

Muridae*Pseudomys sp.**Zyomys argurus*

Common Rock-rat

Pseudomys delicatulus delicatulus

Delicate Mouse

Mus musculus

House Mouse

Pseudomys chapmani

Pebble-mound Mouse

Pseudomys hermannsburgensis

Sandy Inland Mouse

Notomys alexis

Spinifex Hopping-mouse

Leporidae*Oryctolagus cuniculus*

Rabbit

Canidae*Canis familiaris dingo*

Dingo

Felidae*Felis catus*

Feral Cat

Equidae*Equus asinus*

Donkey

Bovidae*Bos taurus*

European Beef Cattle

APPENDIX THREE

Barlee Range Nature Reserve

Bird List

BARLEE RANGE NATURE RESERVE**BIRD LIST****Dromaiidae***Dromaius novaehollandiae*

Emu

Podicipedidae*Tachybaptus novaehollandiae*

Australian Grebe

Anhingidae*Anhinga melanogaster*

Darter

Phalacrocoracidae*Phalacrocorax melanoleucos*

Little Pied Cormorant

Ardeidae*Ardea novaehollandiae*

White-faced Heron

Ardea pacifica

Pacific Heron

Nycticorax caledonicus

Rufous Night Heron

Anatidae*Anas gibberifrons*

Grey Teal

Anas superciliosa

Pacific Black Duck

Chenonetta jubata

Maned Duck

Accipitridae*Accipiter fasciatus*

Brown Goshawk

Accipiter cirrhocephalus

Collared Sparrowhawk

Aquila audax

Wedge-tailed Eagle

Circus assimilis

Spotted Harrier

Hieraaetus morphnoides

Little Eagle

Falconidae*Falco berigora*

Brown Falcon

Falco cenchroides

Australian Kestrel

Falco longipennis

Australian Hobby

Falco peregrinus

Peregrine Falcon

Turnicidae*Turnix velox*

Little Button-quail

Otididae*Ardeotis australis*

Australian Bustard

Burhinidae*Burhinus grallarius*

Bush Thick-knee

Charadriidae*Charadrius melanops*

Black-fronted Plover

Columbidae*Geopelia cuneata*

Diamond Dove

Geopelia placida

Peaceful Dove

Ocyphaps lophotes

Crested Pigeon

BARLEE RANGE NATURE RESERVE**BIRD LIST (cont.)**

<i>Petrophassa plumifera</i>	Spinifex Pigeon
<i>Phaps chalcoptera</i>	Common Bronzewing
Cacatuidae	
<i>Cacatua roseicapilla</i>	Galah
<i>Cacatua sanguinea</i>	Little Corella
Platycercidae	
<i>Barnardius zonarius</i>	Port Lincoln Ringneck
<i>Melopsittacus undulatus</i>	Budgerigar
<i>Neophema bourkii</i>	Bourke's Parrot
<i>Neophema elegans</i>	Elegant Parrot
<i>Nymphicus hollandicus</i>	Cockatiel
<i>Psephotus varius</i>	Mulga Parrot
Cuculidae	
<i>Chrysococcyx basalis</i>	Horsfield's Bronze-cuckoo
<i>Cuculus pallidus</i>	Pallid Cuckoo
Strigidae	
<i>Ninox novaeseelandiae</i>	Southern Boobook
Podargidae	
<i>Podargus strigoides</i>	Tawny Frogmouth
Aegothelidae	
<i>Aegotheles cristatus</i>	Australian Owlet-nightjar
Caprimulgidae	
<i>Caprimulgus guttatus</i>	Spotted Nightjar
Alcedinidae	
<i>Dacelo leachii</i>	Blue-winged Kookaburra
<i>Halcyon pyrrhopygia</i>	Red-backed Kingfisher
<i>Halcyon sancta</i>	Sacred Kingfisher
Meropidae	
<i>Merops ornatus</i>	Rainbow Bee-Eater
Hirundinidae	
<i>Cecropis ariel</i>	Fairy Martin
<i>Cecropis nigricans</i>	Tree Martin
Motacillidae	
<i>Anthus novaeseelandiae</i>	Richard's Pipit
Campephagidae	
<i>Coracina novaehollandiae subpallida</i>	Black-faced Cuckooshrike
<i>Lalage sueurii</i>	White-winged Triller
Muscicapidae	
<i>Colluricincla harmonica rufiventris</i>	Grey Shrike-thrush

BARLEE RANGE NATURE RESERVE**BIRD LIST (cont.)***Melanodryas cucullata**Oreoica gutturalis**Pachycephala rufiventris**Petrocica goodenovii**Rhipidura fuliginosa**Rhipidura leucophrys*

Hooded Robin

Crested Bellbird

Rufous Whistler

Red-capped Robin

Grey Fantail

Willie Wagtail

Orthonychidae*Cinclosoma cinnamomeum*

Cinnamon Quailthrush

Timaliidae*Pomatostomus superciliosus*

White-browed Babbler

Pomatostomus temporalis rubeculus

Grey-crowned Babbler

Sylviidae*Acrocephalus stentoreus*

Clamorous Reed-Warbler

Cinclorhamphus mathewsi

Rufous Songlark

Eremiornis carteri

Spinifexbird

Maluridae*Amytornis striatus*

Striated Grasswren

Malurus lamberti assimilis

Variegated Fairy-wren

Malurus leucopterus leuconotus

White-winged Fairy-wren

Stipiturus ruficeps

Rufous-crowned Emu-wren

Acanthizidae*Acanthiza chrysorrhoa*

Yellow-rumped Thornbill

Acanthiza robustirostris

Slaty-backed Thornbill

Acanthiza sp.

Thornbill sp.

Acanthiza uropygialis

Chestnut-rumped Thornbill

Gerygone fusca

Western Gerygone

Sericornis brunneus

Redthroat

Smicromis brevirostris

Weebill

Neosittidae*Daphoenositta chrysoptera pileata*

Varied Sittella

Meliphagidae*Acanthagenys rufogularis*

Spiny-cheeked Honeyeater

Certhionyx variegatus

Pied Honeyeater

Conopophila whitei

Grey Honeyeater

Lichenostomus keartlandi

Grey-headed Honeyeater

Lichenostomus penicillata

White-plumed Honeyeater

Lichenostomus virescens

Singing Honeyeater

Lichmera indistincta

Brown Honeyeater

Manorina flavigula

Yellow-throated Miner

BARLEE RANGE NATURE RESERVE**BIRD LIST (cont.)**

<i>Phylidonyris albifrons</i>	White-fronted Honeyeater
Ephthianuridae	
<i>Ephthianura tricolor</i>	Crimson Chat
Dicaeidae	
<i>Dicaeum hirundinaceum</i>	Mistletoebird
Pardalotidae	
<i>Pardalotus rubricatus</i>	Red-browed Pardalote
Ploceidae	
<i>Emblema picta</i>	Painted Firetail
<i>Poephila guttata</i>	Zebra Finch
Paradisaeidae	
<i>Chlamydera maculata</i>	Spotted Bowerbird
Grallinidae	
<i>Grallina cyanoleuca</i>	Australian Magpie-lark
Artamidae	
<i>Artamus cinereus</i>	Black-faced Woodswallow
<i>Artamus minor</i>	Little Woodswallow
<i>Artamus personatus</i>	Masked Woodswallow
Cracticidae	
<i>Cracticus nigrogularis</i>	Pied Butcherbird
<i>Cracticus torquatus</i>	Grey Butcherbird
<i>Gymnorhina tibicen</i>	Australian Magpie
Corvidae	
<i>Corvus sp.</i>	Little Crow or Torresian Crow
Zosteropidae	
<i>Zosterops lutea</i>	Yellow White-eye
Rallidae	
<i>Fulica atra</i>	Eurasian Coot

APPENDIX FOUR

Barlee Range Nature Reserve

Reptile List

BARLEE RANGE NATURE RESERVE**REPTILE LIST****Agamidae***Ctenophorus caudicinctus mensarum**Ctenophorus caudicinctus subsp.**Ctenophorus isolepis subsp.**Ctenophorus sp.**Gemmatophora longirostris**Pogona minor subsp.**Ctenophorus isolepis isolepis*

Military Dragon

Ctenophorus caudicinctus caudicinctus

Ring-tailed Dragon

Ctenophorus reticulatus

Western Netted Dragon

Boidae*Morelia olivacea barroni*

Olive Python

Elapidae*Vermicella sp.**Vermicella bertholdi*

Jan's Banded Snake

Furina ornata

Moon Snake

Vermicella approximans

Northwestern Shovel-nosed Snake

Gekkonidae*Diplodactylus jeanae**Diplodactylus sp.**Diplodactylus stenodactylus**Diplodactylus strophurus**Gehyra sp.**Heteronotia binoei*

Bynoe's Gecko

Heteronotia spelea

Desert Cave Gecko

Diplodactylus elderi

Jewelled Gecko

Gehyra punctata

Spotted Dtella

Gehyra variegata

Tree Dtella

Pygopodidae*Delma butleri**Delma pax**Lialis burtonis*

Burton's Snake-lizard

Scincidae*Carlia munda**Cryptoblepharus plagiocephalus**Cryptoblepharus sp.**Ctenotus duricola**Ctenotus hanloni**Ctenotus pantherinus ocellifer**Ctenotus pantherinus subsp.*

BARLEE RANGE NATURE RESERVE**REPTILE (cont.)**

Ctenotus rutilans
Ctenotus saxatilis
Ctenotus schomburgkii
Ctenotus sp.
Cycodomorphus branchialis
Lerista bipes
Lerista flammicauda
Lerista macropisthopus fusciceps
Lerista muelleri
Lerista nichollsi
Lerista nichollsi petersoni
Menetia greyii
Menetia sp.
Morethia ruficauda exquisita
Morethia ruficauda ruficauda
Morethia ruficauda subsp.
Notoscincus ornatus subsp.
Notoscincus sp.
Omolepida branchialis
Omolepida sp.
Proablepharus reginae
Tiliqua multifasciata

Centralian Blue-tongued Lizard

Typhlopidae*Ramphotyphlops hamatus***Varanidae**

Varanus eremius
Varanus panoptes rubidus
Varanus tristis tristis
Varanus gouldii
Varanus giganteus
Varanus acanthurus

Gould's Goanna or Sand Monitor

Perentie

Ridge-tailed Monitor

APPENDIX FIVE

Barlee Range Nature Reserve

Amphibian List

BARLEE RANGE NATURE RESERVE**AMPHIBIAN LIST****Leptodactylidae***Neobatrachus sp.**Pseudophryne douglasi**Neobatrachus centralis*

Trilling Frog

Hylidae*Cyclorana sp.**Litoria rubella*

Desert Tree Frog

APPENDIX SIX

Budget Statement


NEGP Project N92/5

**WESTERN AUSTRALIAN HERITAGE COMMITTEE
NATIONAL ESTATE GRANT PROGRAM
(N92/5)**

Project: BIOLOGICAL SURVEY OF THE BARLEE RANGE NATURE RESERVE

Expenditure statement

	\$
1993/94 (balance brought forward)	11 726
1994/95 (28/08/94)	
Materials & Equipment	<u>358</u>
Plant Hire & Vehicle Running	<u>422</u>
Total expenditure (28/08/94)	\$ <u>12 506</u>



P. Waterer
A/Admin. Assistant
28/08/94