

**BIOLOGICAL SURVEY OF**

**BARLEE RANGE NATURE RESERVE**

**Project (N92/5)**

**Progress Report 6**

*Prepared by: Stephen van Leeuwen*

*Date: April 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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Regional Ecologist

**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**

No field work related to this project has been conducted between this progress report and the report provided in January. Work undertaken on this project over the past three months has concentrated on databasing bird census records and the identification and incorporation of plant specimens into the Pilbara Regional and Perth Herbaria.

Appendix One of this report provides a list of the 92 bird species recorded so far from the reserve. This list was compiled from data collected during the previous sampling trip and from field logs and observations made on previous opportunistic visits. The list also includes information acquired from publications prepared by Angus Robinson on the 'Birds of Barlee Range'. These preparations were published in *Emu* (Vol. 33, 1933 & Vol. 38, 1939).

Appendix Two presents a presence/absence matrix depicting the distribution of bird species across the 12 permanent quadrats within the nature reserve. Eighty five (92%) of those species recorded for the Nature Reserve have been observed during this project, with 55 of these being recorded from the permanent quadrats. The three most commonly recorded species were the White-plumed Honeyeater (*Lichenostomus penicillata*), Pied Butcherbird (*Cracticus nigrogularis*) and Crested Bellbird (*Oreoica gutturalis*). The White-plumed Honeyeater was recorded from all but one quadrat, while the two other species were recorded in ten of the twelve quadrats. Thirty species have opportunistically been recorded throughout the reserve, the majority of these in association with freshwater pools and cliff faces in Kookhabinna Gorge.

Appendix three presents a list of 194 plant species so far identified as occurring in the reserve. This list represents approximately 65% of the specimens collected during the first field trip. The remaining specimen are awaiting identification and databasing, which will be completed prior to the next field trip.

The next field trip to the reserve will be undertaken in mid-May and will be for the specific purpose of collecting botanical specimens. The trip will be of three days duration and will concentrate on collecting flowering specimens of perennial plants which have hopefully responded to the recent rains. Particular attention will be directed towards collecting *Acacia* and *Eremophila* specimens as many the current voucher specimens represent sterile material which precludes an accurate identification.

The next full sampling trip has been scheduled for a three week period in June. During this trip sampling of the targeted biotic groups will continue. Opportunistic sampling of the terrestrial land snail fauna and possibly the fish fauna within the reserve, will also be undertaken. This trip should prove to be very fruitful as the reserve reportedly received 100 mm of rain during the passage of a tropical depression through the Pilbara in February. Scheduling of sampling trips after rain should ensure the maximum return for collecting effort and guarantee that funds are not wasted on unproductive trips.

## EXPENDITURE TO DATE

An expenditure statement from the Acting Administration Assistant in the Pilbara Regional Office is attached as Appendix Four. As of the 21<sup>st</sup> April a total of \$11 675 or 58% of the \$20 000 budget had been consumed. Expenditure over the past three months has been \$157, of which \$72 was attributed to an account adjustment associated with 1992/93 expenditure. The remaining \$85 was used to purchase

consumable materials associated with the incorporation of specimens into the herbarium. No budget expenditure has been incurred against plant hire and vehicle running fees during the past three months. A breakdown of budget expenditure between the 18<sup>th</sup> of January 1993 and the current progress report is provided in Table 1.

To date, 78% of NEGP fund expenditure has been directed towards the purchase of materials and equipment required to undertake the survey. The remaining 22% has been spent on vehicle hire charges 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 14<sup>th</sup> January 1993 to 21<sup>st</sup> January 1994.

### Materials & Equipment

Month	Item	Amount (\$)	Account Balance (\$)
Feb 94	Account adjustment	72	72
	Herbarium consumables	85	157

### TOTAL EXPENDITURE (15/01/94 - 21/4/94)

Item	Account Balance (\$)
Materials and equipment	157
Plant and vehicle running	-
<b><u>Total</u></b>	<b><u>157</u></b>

### TOTAL PROJECT EXPENDITURE

Item	Account Balance (\$)
Materials and equipment	9147
Plant and vehicle running	2 528
<b><u>Total</u></b>	<b><u>11 675</u></b>

## **APPENDIX ONE**

Barlee Range Nature Reserve

Bird List

**BARLEE RANGE NATURE RESERVE****BIRD LIST****Casuariidae***Dromaius novaehollandiae* Emu**Podicipedidae***Tachybaptus novaehollandiae* Grebe, Australasian (Little)**Phalacrocoracidae***Anhinga melanogaster* Darter*Phalacrocorax melanoleucos* Cormorant, Little Pied**Ardeidae***Ardea novaehollandiae* Heron, White-faced*Ardea pacifica* Heron, Pacific**Anatidae***Anas gibberifrons* Teal, Grey*Anas superciliosa* Duck, Pacific Black**Accipitridae***Accipiter fasciatus* Goshawk, Brown*Accipiter cirrhocephalus* Sparrowhawk, Collared*Aquila audax* Eagle, Wedge-tailed*Hieraaetus morphnoides* Eagle, Little**Falconidae***Falco berigora* Falcon, Brown*Falco cenchroides* Kestrel, Nankeen (Australian)*Falco longipennis* Falcon, Little*Falco peregrinus* Falcon, Peregrine**Turnicidae***Turnix velox* Button-quail, Little**Otididae***Ardeotis australis* Bustard, Australian**Charadriidae***Charadrius melanops* Dotterel, Black-fronted(Black-fronted Plover)**Burhinidae***Burhinus grallarinus* Stone-curlew, Bush**Columbidae***Geopelia cuneata* Dove, Diamond*Geopelia placida* Dove, Peaceful*Ocyphaps lophotes* Pigeon, Crested*Petrophassa plumifera* Pigeon, Spinifex*Phaps chalcoptera* Bronzewing, Common**Psittacidae***Barnardius zonarius* Parrot, Port Lincoln Ringneck (Twenty-eight)

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

<i>Cacatua pastinator</i>	Corella, Little
<i>Cacatua roseicapilla</i>	Galah
<i>Melopsittacus undulatus</i>	Budgerigar
<i>Neophema bourkii</i>	Parrot, Bourke's
<i>Nymphicus hollandicus</i>	Cockatiel
<i>Psephotus varius</i>	Parrot, Mulga
<b>Cuculidae</b>	
<i>Chrysococcyx basalis</i>	Bronze-cuckoo, Horsfield's
<i>Cuculus pallidus</i>	Cuckoo, Pallid
<b>Strigidae</b>	
<i>Ninox novaeseelandiae</i>	Boobook, Southern
<b>Podargidae</b>	
<i>Podargus strigoides</i>	Frogmouth, Tawny
<b>Aegothelidae</b>	
<i>Aegotheles cristatus</i>	Owlet-nightjar, Australian
<b>Caprimulgidae</b>	
<i>Caprimulgus guttatus</i>	Nightjar, Spotted
<b>Alcedinidae</b>	
<i>Dacelo leachii</i>	Kookaburra, Blue-winged
<i>Halcyon pyrrhopygia</i>	Kingfisher, Red-backed
<b>Meropidae</b>	
<i>Merops ornatus</i>	Bee-Eater, Rainbow
<b>Hirundinidae</b>	
<i>Cecropis ariel</i>	Martin, Fairy
<i>Cecropis nigricans</i>	Martin, Tree
<b>Motacillidae</b>	
<i>Anthus novaeseelandiae</i>	Pipit, Richard's
<b>Campephagidae</b>	
<i>Coracina novaehollandiae subpallida</i>	Cuckooshrike, Black-faced
<i>Lalage sueurii</i>	Triller, White Winged
<b>Pachycephalidae</b>	
<i>Colluricincla harmonica rufiventris</i>	Shrike-thrush, Grey
<i>Melanodryas cucullata</i>	Robin, Hooded
<i>Oreoica gutturalis</i>	Bellbird, Crested
<i>Pachycephala rufiventris</i>	Whistler, Rufous
<i>Petrocica goodenovii</i>	Robin, Red-capped
<b>Monarchidae</b>	
<i>Rhipidura fuliginosa</i>	Fantail, Grey
<i>Rhipidura leucophrys</i>	Wagtail, Willie



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

<i>Cinclosoma cinnamomeum</i>	Quailthrush, Cinnamon
<i>Pomatostomus superciliosus</i>	Babbler, White-browed
<i>Pomatostomus temporalis rubeculus</i>	Babbler, Grey-crowned

**Acanthizidae**

<i>Acanthiza chrysorrhoa</i>	Thornbill, Yellow-rumped
<i>Acanthiza robustirostris</i>	Thornbill, Slate-backed
<i>Acanthiza sp.</i>	Thornbill sp.
<i>Acanthiza uropygialis</i>	Thornbill, Chestnut-rumped
<i>Gerygone fusca</i>	Gerygone, Western (Western Warbler)
<i>Sericornis brunneus</i>	Redthroat
<i>Smicrornis brevirostris</i>	Weebill

**Maluridae**

<i>Amytornis striatus</i>	Grasswren, Striated
<i>Malurus lamberti assimilis</i>	Wren, Variegated
<i>Malurus leucopterus leuconotus</i>	Wren, White-winged
<i>Stipiturus ruficeps</i>	Emu-wren, Rufous-crowned

**Sylviidae**

<i>Acrocephalus stentoreus</i>	Warbler, Clamorous Reed
<i>Cinclorhamphus mathewsi</i>	Songlark, Rufous
<i>Eremiornis carteri</i>	Spinifex-bird

**Daphoenosittidae**

<i>Daphoenositta chrysoptera pileata</i>	Sittella, Varied
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**Dicaeidae**

<i>Dicaeum hirundinaceum</i>	Mistletoe Bird
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**Pardalotidae**

<i>Pardalotus rubricatus</i>	Pardalote, Red-browed
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**Meliphagidae**

<i>Acanthagenys rufogularis</i>	Honeyeater, Spiny-cheeked
<i>Certhionyx variegatus</i>	Honeyeater, Pied
<i>Conopophila whitei</i>	Honeyeater, Grey
<i>Epthianura tricolor</i>	Chat, Crimson
<i>Lichenostomus keartlandi</i>	Honeyeater, Grey-headed
<i>Lichenostomus penicillata</i>	Honeyeater, White-plumed
<i>Lichenostomus virescens</i>	Honeyeater, Singing
<i>Lichmera indistincta</i>	Honeyeater, Brown
<i>Manorina flavigula</i>	Miner, Yellow-throated

**Ploceidae**

<i>Emblema pictum</i>	Finch, Painted (Painted Firetail)
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**BARLEE RANGE NATURE RESERVE****BIRD LIST (cont.)**

<i>Poephila guttata</i>	Finch, Zebra
<b>Grallinidae</b>	
<i>Grallina cyanoleuca</i>	Mudlark (Magpie-lark)
<b>Artamidae</b>	
<i>Artamus cinereus</i>	Woodswallow, Black Faced
<i>Artamus minor</i>	Woodswallow, Little
<i>Artamus personatus</i>	Woodswallow, Masked
<b>Cracticidae</b>	
<i>Cracticus nigrogularis</i>	Butcherbird, Pied
<i>Cracticus torquatus</i>	Butcherbird, Grey
<b>Ptilonorhynchidae</b>	
<i>Chlamydera maculata</i>	Bowerbird, Spotted
<b>Corvidae</b>	
<i>Corvus sp.</i>	Crow or Raven

## **APPENDIX TWO**

Observation Records for Bird Species within the

Barlee Range Nature Reserve Quadrats

BIRD SPECIES		QUADRAT													
		BR1	BR2	BR3	BR4	BR5	BR6	BR7	BR8	BR9	BR10	BR11	BR12	Opp	
Casuariidae	<i>Dromaius novaehollandiae</i>														◆
Phalacrocoracidae	<i>Anhinga melanogaster</i>														◆
	<i>Phalacrocorax melanoleucos</i>														◆
Ardeidae	<i>Ardea novaehollandiae</i>														◆
	<i>Ardea pacifica</i>														◆
Anatidae	<i>Anas gibberifrons</i>														◆
	<i>Anas superciliosa</i>														◆
Accipitridae	<i>Accipiter fasciatus</i>														◆
	<i>Accipiter cirrhocephalus</i>	◆													
	<i>Aquila audax</i>										◆				◆
	<i>Hieraaetus morphnoides</i>												◆		◆
Falconidae	<i>Falco berigora</i>	◆													◆
	<i>Falco cenchroides</i>														◆
	<i>Falco longipennis</i>														
	<i>Falco peregrinus</i>														
Turnicidae	<i>Turnix velox</i>														◆
Otididae	<i>Ardeotis australis</i>	◆		◆											
Charadriidae	<i>Charadrius melanops</i>														◆
Burhinidae	<i>Burhinus grallarius</i>														◆

BIRD SPECIES (cont.)		QUADRAT												
		BR1	BR2	BR3	BR4	BR5	BR6	BR7	BR8	BR9	BR10	BR11	BR12	Opp
Columbidae	<i>Geopelia cuneata</i>													◆
	<i>Geopelia placida</i>													◆
	<i>Ocyphaps lophotes</i>	◆		◆	◆	◆	◆	◆		◆	◆			◆
	<i>Petrophassa plumifera</i>	◆				◆	◆					◆		◆
	<i>Phaps chalcoptera</i>		◆			◆	◆		◆	◆		◆		◆
Psittacidae	<i>Barnardius zonarius</i>	◆				◆	◆			◆			◆	◆
	<i>Cacatua pastinator</i>										◆		◆	◆
	<i>Cacatua roseicapilla</i>	◆				◆	◆	◆		◆			◆	◆
	<i>Melopsittacus undulatus</i>	◆				◆	◆	◆	◆			◆	◆	◆
	<i>Neophema bourkii</i>													◆
	<i>Nymphicus hollandicus</i>	◆							◆		◆		◆	
	<i>Psephotus varius</i>													◆
Cuculidae	<i>Chrysococcyx basalis</i>	◆	◆							◆				
	<i>Cuculus pallidus</i>	◆	◆		◆					◆	◆	◆	◆	◆
Strigidae	<i>Ninox novaeseelandiae</i>													◆
Acanthizidae	<i>Acanthiza chrysorrhoa</i>	◆											◆	◆
	<i>Acanthiza robustirostris</i>						◆							◆
	<i>Acanthiza uropygialis</i>	◆				◆	◆	◆	◆		◆		◆	◆
	<i>Gerygone fusca</i>										◆			
	<i>Sericornis brunneus</i>						◆							◆
	<i>Smicromis brevirostris</i>	◆			◆	◆		◆					◆	◆
Aegothelidae	<i>Aegotheles cristatus</i>						◆							◆
Caprimulgidae	<i>Caprimulgus guttatus</i>										◆			◆
Alcedinidae	<i>Dacelo leachii</i>												◆	◆
	<i>Halcyon pyrrhopygia</i>	◆												◆

BIRD SPECIES (cont.)		QUADRAT												
		BR1	BR2	BR3	BR4	BR5	BR6	BR7	BR8	BR9	BR10	BR11	BR12	Opp
Meropidae	<i>Merops ornatus</i>	◆											◆	◆
Hirundinidae	<i>Cecropis ariel</i>													◆
	<i>Cecropis nigricans</i>													◆
Motacillidae	<i>Anthus novaeseelandiae</i>				◆							◆		◆
Campephagidae	<i>Coracina novaehollandiae subpallida</i>	◆						◆					◆	◆
	<i>Lalage sueurii</i>													◆
Pachycephalidae	<i>Colluncincla harmonica rufiventris</i>		◆	◆	◆					◆			◆	◆
	<i>Melanodryas cucullata</i>	◆		◆			◆		◆		◆			◆
	<i>Oreoica gutturalis</i>	◆	◆	◆	◆	◆		◆		◆	◆	◆	◆	◆
	<i>Pachycephala rufiventris</i>	◆	◆	◆		◆	◆			◆	◆		◆	◆
	<i>Petrocica goodenovii</i>			◆									◆	◆
Monarchidae	<i>Rhipidura fuliginosa</i>						◆							◆
	<i>Rhipidura leucophrys</i>	◆			◆	◆	◆	◆				◆	◆	◆
Orthonychidae	<i>Cinclosoma cinnamomeum</i>			◆	◆						◆			◆
	<i>Pomatostomus superciliosus</i>		◆			◆	◆				◆			◆
	<i>Pomatostomus temporalis rubeculus</i>	◆		◆		◆				◆		◆	◆	◆
Maluridae	<i>Amytornis striatus</i>													◆
	<i>Malurus lamberti assimilis</i>	◆	◆	◆		◆	◆	◆		◆			◆	◆
	<i>Malurus leucopterus leuconotus</i>													◆
	<i>Stipiturus ruficeps</i>													◆
Sylviidae	<i>Acrocephalus stentoreus</i>													◆
	<i>Eremiornis carteri</i>			◆	◆			◆				◆		◆
Daphoenosittidae	<i>Daphoenositta chrysoptera pileata</i>						◆					◆	◆	

BIRD SPECIES (cont.)		QUADRAT												
		BR1	BR2	BR3	BR4	BR5	BR6	BR7	BR8	BR9	BR10	BR11	BR12	Opp
Meliphagidae	<i>Acanthagenys rufogularis</i>	◆	◆	◆			◆	◆		◆	◆			◆
	<i>Certhionyx variegatus</i>													
	<i>Conopophila whitei</i>				◆									◆
	<i>Epthianura tricolor</i>													
	<i>Lichenostomus keartlandi</i>									◆	◆	◆		◆
	<i>Lichenostomus penicillata</i>	◆								◆			◆	◆
	<i>Lichenostomus virescens</i>	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆		◆
	<i>Lichmera indistincta</i>								◆	◆				◆
	<i>Manorina flavigula</i>	◆		◆	◆				◆				◆	
Ploceidae	<i>Emblema pictum</i>													◆
	<i>Poephila guttata</i>			◆								◆		◆
Grallinidae	<i>Grallina cyanoleuca</i>	◆											◆	◆
Artamidae	<i>Artamus cinereus</i>	◆	◆	◆	◆			◆				◆		◆
	<i>Artamus minor</i>													◆
	<i>Artamus personatus</i>			◆										◆
Cracticidae	<i>Cracticus nigrogularis</i>	◆	◆	◆	◆			◆				◆	◆	◆
	<i>Cracticus torquatus</i>	◆		◆		◆	◆	◆	◆	◆	◆	◆	◆	◆
Corvidae	<i>Corvus sp.</i>	◆				◆	◆	◆					◆	◆
<b>NUMBER OF SPECIES OBSERVED AT SITE</b>		<b>32</b>	<b>12</b>	<b>19</b>	<b>14</b>	<b>17</b>	<b>20</b>	<b>17</b>	<b>7</b>	<b>18</b>	<b>18</b>	<b>15</b>	<b>27</b>	<b>75</b>

## **APPENDIX THREE**

Barlee Range Nature Reserve

Flora List



**BARLEE RANGE NATURE RESERVE****FLORA LIST****Adiantaceae**

<i>Cheilanthes</i>	<i>brownii</i>		
<i>Cheilanthes</i>	<i>sieberi</i>	subsp.	<i>sieberi</i>

**Poaceae**

<i>Aristida</i>	<i>contorta</i>		
<i>Cenchrus</i>	<i>ciliaris</i>		
<i>Cymbopogon</i>	<i>bombycinus</i>		
<i>Digitaria</i>	<i>brownii</i>		
<i>Enneapogon</i>	<i>caerulescens</i>		
<i>Enneapogon</i>	sp.		
<i>Eragrostis</i>	<i>dielsii</i>		
<i>Eragrostis</i>	<i>eriopoda</i>		
<i>Eriachne</i>	<i>dominii</i>		
<i>Eriachne</i>	<i>mucronata</i>		
<i>Paspalidium</i>	<i>rarum</i>		
<i>Seteria</i>	<i>verticillata</i>		
<i>Triodia</i>	<i>pungens</i>		
<i>Triodia</i>	sp.		

**Cyperaceae**

<i>Cyperus</i>	<i>cunninghamii</i>		
<i>Cyperus</i>	<i>iria</i>		

**Asphodelaceae**

<i>Bulbine</i>	<i>semibarbata</i>		
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**Moraceae**

<i>Ficus</i>	<i>platypoda</i>	var.	<i>platypoda</i>
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**Proteaceae**

<i>Grevillea</i>	<i>stenobotrya</i>		
<i>Hakea</i>	<i>suberea</i>		

**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>		

**Chenopodiaceae**

<i>Atriplex</i>	<i>codonocarpa</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>		

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

<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>Scleroleana</i>	<i>eriacantha</i>		
<i>Sclerostegia</i>	<i>disarticulata</i>		
<i>Tecticornia</i>	<i>verrucosa</i>		
<b>Amaranthaceae</b>			
<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>helipteroides</i>		
<i>Ptilotus</i>	<i>obovatus</i>		
<i>Ptilotus</i>	<i>sp</i>		
<b>Nyctaginaceae</b>			
<i>Boerhavia</i>	<i>schomburgkiana</i>		
<b>Aizoaceae</b>			
<i>Mollugo</i>	<i>molluginea</i>		
<i>Zaleya</i>	<i>galericulata</i>		
<b>Molluginaceae</b>			
<i>Glinus</i>	<i>oppositifolius</i>		
<b>Portulacaceae</b>			
<i>Calandrinia</i>	<i>polyandra</i>		
<b>Caryophyllaceae</b>			
<i>Polycarpaea</i>	<i>longiflora</i>		
<b>Capparaceae</b>			
<i>Capparis</i>	<i>spinosa</i>	var.	<i>nummularia</i>
<i>Cleome</i>	<i>viscosa</i>		
<b>Brassicaceae</b>			
<i>Lepidium</i>	<i>biplicatum</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>		

**BARLEE RANGE NATURE RESERVE****FLORA LIST (cont.)****Surianaceae***Stylobasium* *spathulatum***Mimosaceae**

<i>Acacia</i>	<i>? arida</i>		
<i>Acacia</i>	<i>? coolgardiensis</i>	subsp.	"effusa"
<i>Acacia</i>	<i>ancistrocarpa</i>		
<i>Acacia</i>	<i>aneura</i>	var.	<i>aneura</i>
<i>Acacia</i>	<i>bivenosa</i>		
<i>Acacia</i>	<i>citrinoviridis</i>		
<i>Acacia</i>	<i>coriacea</i>	subsp.	<i>pendens</i>
<i>Acacia</i>	<i>farnesiana</i>		
<i>Acacia</i>	<i>marramamba</i>		
<i>Acacia</i>	<i>pruinocarpa</i>		
<i>Acacia</i>	<i>pyrifolia</i>		
<i>Acacia</i>	<i>retivenia</i>		
<i>Acacia</i>	<i>rhodophloia</i>		
<i>Acacia</i>	<i>sclerosperma</i>	subsp.	<i>sclerosperma</i>
<i>Acacia</i>	<i>sp.</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>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>stricta</i>
<i>Senna</i>	<i>cardiosperma</i>	subsp.	<i>pilocarina</i>
<i>Senna</i>	<i>glutinosa</i>	subsp.	<i>aff. x luerssenii</i>
<i>Senna</i>	<i>glutinosa</i>	subsp.	<i>chatelainiana</i>
<i>Senna</i>	<i>glutinosa</i>	subsp.	<i>glutinosa</i>
<i>Senna</i>	<i>glutinosa</i>	subsp.	<i>pruinosa</i>
<i>Senna</i>	<i>glutinosa</i>	subsp.	<i>x luerssenii</i>
<i>Senna</i>	<i>sp.</i>		

**Papilionaceae**

<i>Indigofera</i>	<i>monophylla</i>
<i>Indigofera</i>	<i>sp.</i>
<i>Lotus</i>	<i>cruentus</i>
<i>Swainsona</i>	<i>kingii</i>
<i>Swainsona</i>	<i>sp.</i>
<i>Tephrosia</i>	<i>aff. supina</i>
<i>Tephrosia</i>	<i>clementii</i>
<i>Tephrosia</i>	<i>rosea</i>

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

<i>Tephrosia</i>	<i>uniovulata</i>		
<b>Geraniaceae</b>			
<i>Erodium</i>	<i>aureum</i>		
<b>Zygophyllaceae</b>			
<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>		
<b>Euphorbiaceae</b>			
<i>Adriana</i>	<i>tomentosa</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>
<i>Phyllanthus</i>	<i>sp.</i>		
<b>Stackhousiaceae</b>			
<i>Stackhousia</i>	<i>intermedia</i>		
<b>Sapindaceae</b>			
<i>Dodonaea</i>	<i>pachyneura</i>		
<i>Dodonaea</i>	<i>petiolaris</i>		
<b>Tiliaceae</b>			
<i>Corchorus</i>	<i>walcottii</i>		
<i>Triumfetta</i>	<i>aff. appendiculata</i>		
<i>Triumfetta</i>	<i>aff. micrantha "rudall river"</i>		
<i>Triumfetta</i>	<i>sp.</i>		
<b>Malvaceae</b>			
<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>		
<b>Sterculiaceae</b>			
<i>Rulingea</i>	<i>kempeana</i>		
<i>Waltheria</i>	<i>indica</i>		
<b>Frankeniaceae</b>			
<i>Frankenia</i>	<i>cordata</i>		
<b>Violaceae</b>			
<i>Hybanthus</i>	<i>aurantiacus</i>		
<b>Myrtaceae</b>			
<i>Eucalyptus</i>	<i>leucophloia</i>		
<i>Eucalyptus</i>	<i>sp.</i>		
<i>Melaleuca</i>	<i>sp.</i>		

**BARLEE RANGE NATURE RESERVE****FLORA LIST (cont.)****Haloragaceae***Haloragis gossei***Apiaceae***Trachymene aff. glaucifolia***Oleaceae***Jasminum didymum* subsp. *lineare***Asclepiadaceae***Rhycharrhena linearis**Sarcostemma viminale* subsp. *australe***Convolvulaceae***Bonamia rosea**Evolvulus alsionoides**Porana commixta***Boraginaceae***Heliotropium aff. undulatum**Heliotropium heteranthum**Trichodesma zeylanicum***Verbenaceae***Clerodendrum floribundum* var. *angustifolium***Solanaceae***Nicotiana occidentalis* subsp. *occidentalis**Solanum ? sturtianum**Solanum diversiflorum**Solanum lasiophyllum**Solanum sp.***Scrophulariaceae***Mimulus gracilis**Peplidium sp.***Acanthaceae***Dipteracanthus sp.***Myoporaceae***Eremophila "phyllopoda"**Eremophila cuniefolia**Eremophila exilifolia**Eremophila forrestii**Eremophila fraseri**Eremophila latrobei**Eremophila longifolia**Eremophila sp.**Eremophila sp.***Rubiaceae***Canthium latifolium*

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

<i>Canthium</i>	<i>lineare</i>
<i>Hedyotis</i>	<i>crouchiana</i>
<b>Cucurbitaceae</b>	
<i>Mukia</i>	<i>maderaspatana</i>
<b>Lobeliaceae</b>	
<i>Lobelia</i>	<i>heterophylla</i>
<b>Goodeniaceae</b>	
<i>Goodenia</i>	<i>sp.</i>
<i>Goodenia</i>	<i>tenuiloba</i>
<i>Scaevola</i>	<i>sp.</i>
<i>Scaevola</i>	<i>spinescens</i>
<b>Asteraceae</b>	
<i>Actinobole</i>	<i>oldfieldiana</i>
<i>Angianthus</i>	? <i>milnei</i>
<i>Angianthus</i>	<i>milnei</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>Centipeda</i>	<i>minima</i>
<i>Decazesia</i>	<i>hecatcephala</i>
<i>Gnephosis</i>	<i>arachnoides</i>
<i>Gnephosis</i>	<i>brevifolia</i>
<i>Schoenia</i>	<i>ayersii</i>
<i>Streptoglossa</i>	<i>adscendens</i>
<i>Streptoglossa</i>	<i>cylindriceps</i>

## **APPENDIX FOUR**

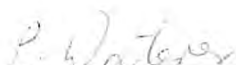
Statement of Expenditure for NEGP Project N92/5

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

**Project: BIOLOGICAL SURVEY OF THE BARLEE RANGE NATURE RESERVE**

Expenditure statement

	\$
1992/93 (balance brought forward)	8 603
1993/94 (21/04/94)	
Materials & Equipment	<u>2 163</u>
Plant Hire & Vehicle Running	<u>909</u>
<b>Total expenditure (21/04/94)</b>	<b>\$ <u>11 675</u></b>



P. Waterer  
A/Admin. Assistant  
21/04/94