

## NORTHERN RIVERS REGION

To NESFHAB representatives:

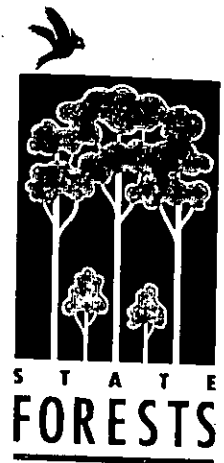
(1) Georgia Beyer and Daniel Hall

2) Russ Ainley

From Mark Carron, Harvesting Advisory Board Co-ordinator

Date 9 July 1998

Subject FLORA and FAUNA SURVEY REPORTS



Attached please find a copy of pre-harvest flora and fauna surveys conducted in Glen Innes Management Area, Brother S.F., Compartments 89, 90 and 96?

Regards

MASKED Owl - <sup>Breeding/Nest</sup>  
K. Papuensis habitat-constraints on mapping

Mark Carron

CP 117/BA 77ha.  
1a 400  
b 400  
c 300 (1.1km)  
2b 600  
a 500  
c 550 (1.5)  
2750  
2.75 km

ROGS - habitat/constraints to surveys.

**STATE FORESTS of NSW.  
THREATENED SPECIES PROTOCOL PRE-LOGGING AND PRE-  
ROADING SURVEY REPORT.**

Prepared by: Robert Kooyman FA - Ecology 6/98

Northern Rivers REGION Glen Innes MANAGEMENT AREA  
STATE FOREST: BROTHER SF  
SURVEY REPORT NO: Brothsr96 COMPARTMENT 89, 90, & 96

**PART A. DESKTOP REVIEW**

Date of Review: March 1998 Undertaken by: Ken McCray

1. *Previous Surveys undertaken within 2 km or 5 km.*  
SFNSW, application of Threatened Species Conservation Protocol Survey Design, Compartments 94 & 95, Brother SF. Report by Kooyman, 24/12/97.

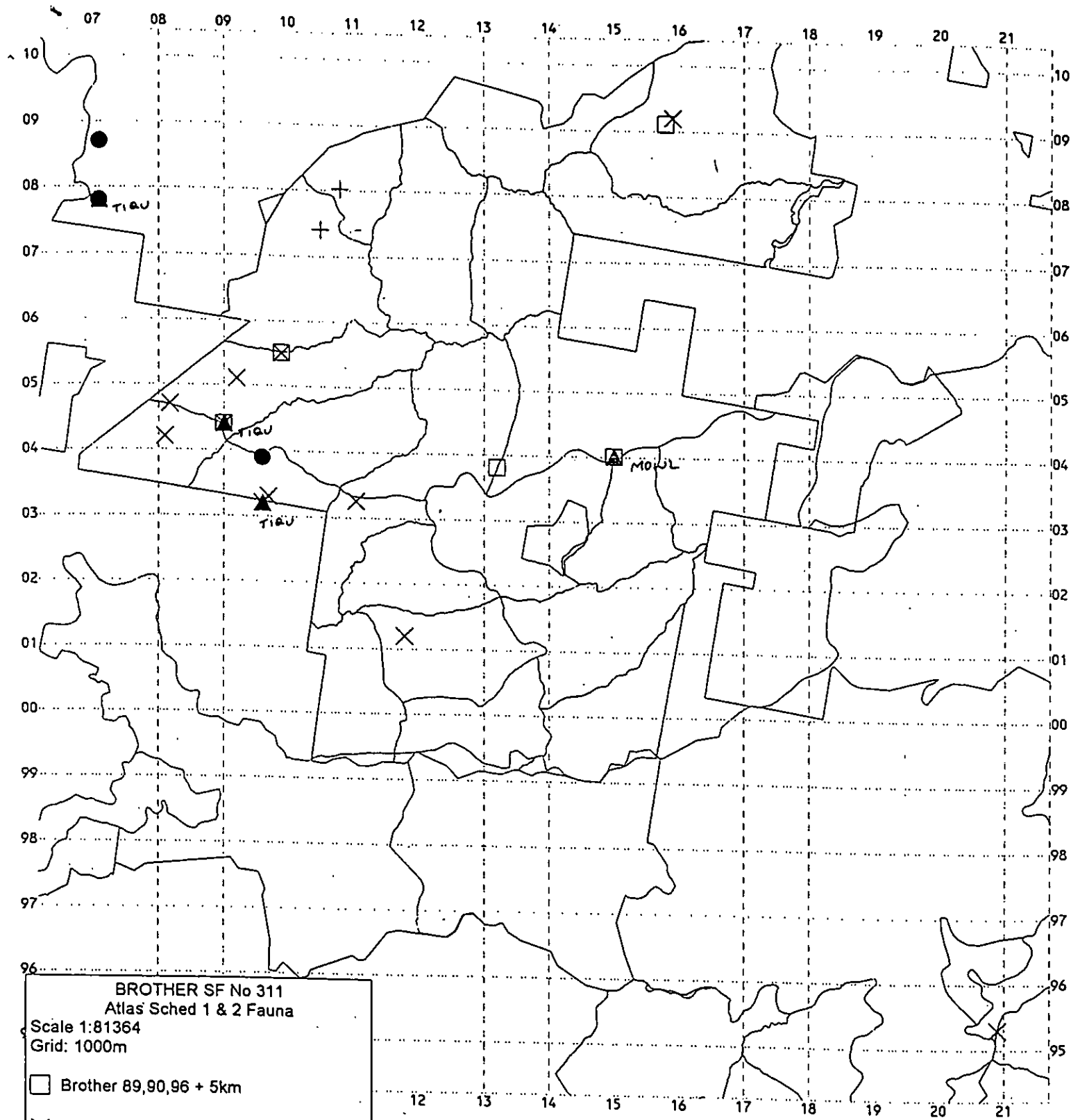
| Survey Type             | Source                   | Date  | Distance              | Reliable Survey |
|-------------------------|--------------------------|-------|-----------------------|-----------------|
| Flora                   | SFNSW Cons. Prot. Survey | 12/97 | Adjacent (cpts 94&95) | Yes             |
| Spotlight               | SFNSW                    | 12/97 | "                     | Yes             |
| Nocturnal Call Playback | SFNSW                    | 12/97 | "                     | Yes             |
| Hairtubes               | NO                       |       |                       |                 |
| Scat and Track          | SFNSW                    | 12/97 | Adjacent              | Yes             |
| Riparian Frog           | SFNSW                    | 12/97 | "                     | Yes             |
| Non-riparian Frog       | SFNSW                    | 12/97 | "                     | Yes             |
| Micro Bats              | SFNSW                    | 12/97 | "                     | Yes             |
| Small Mammals           | NO                       |       |                       |                 |
| Diurnal Birds           | SFNSW                    | 12/97 | Adjacent              | Yes             |
| Reptiles                | SFNSW                    | 12/97 | "                     | No              |

Notes: Survey results, threatened species records, maps, AMGs and species lists for the adjacent area of Brother SF are provided in the report for Brother SF, compts 94&95, by Kooyman (24/12/97). EIS survey and other incidental results are appended as sch.1&2 records from database records.

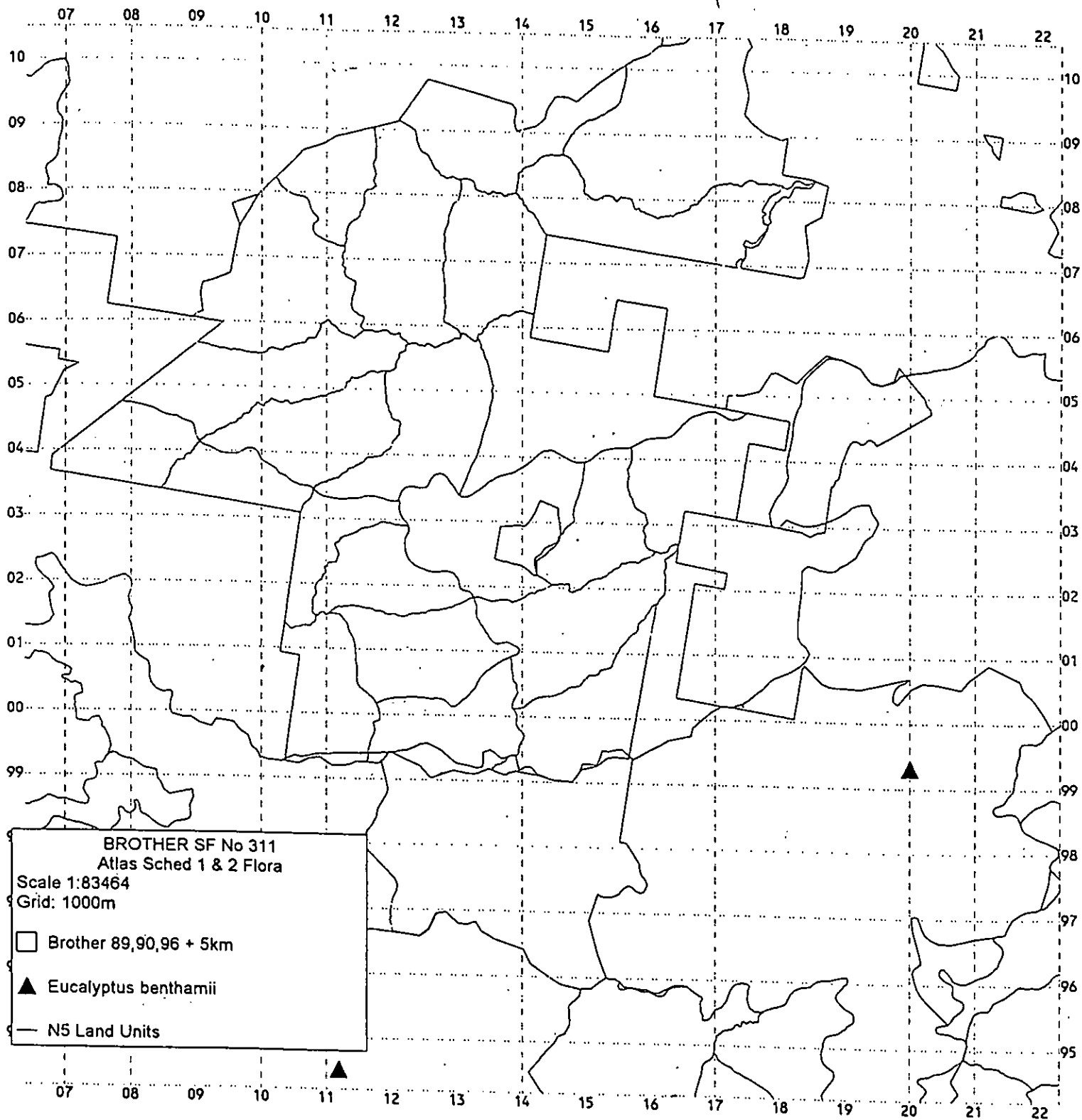
2. *Results of Database Search - Species recorded within 2 km or 5 km.*

| Species Name | AMGNorth | AMGEast | Date | Observation Type | Observers Name | Source |
|--------------|----------|---------|------|------------------|----------------|--------|
| See below    |          |         |      |                  |                |        |

Refer to appended database records and report for compartments 94/95 Brother SF.  
Please note the records supplied for Grey Falcon are not consistent with the EIS report by Smith et al. (1992) and may be erroneous.



ACCESSED 2/12/97



ACCESSED 2/12/97



# Fauna Data - Schedule 1 and 2 Sightings

( AMGEAST >= 407000 ) AND ( AMGEAST <=421500 ) AND ( AMGNORTH >= 6694100 ) AND ( AMGNORTH <= 6710500 )

FPE Environmental Database

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## AMG Coordinates

| Source Ref     |              | Zone  | Easting | Northing | Forest | Cpt. | Recorder Name    | Scientific Name             | Common Name           | Location   | Type | Distr | Ref. D |
|----------------|--------------|-------|---------|----------|--------|------|------------------|-----------------------------|-----------------------|--|------|-------|--------|
| NP_ATLAS       | SPXE10057348 | 56    | 407100  | 6707800  | 0      | 0    |                  | Aepyprymnus rufescens       | Rufous Bellong        | Narrow Pass Fire Trail   | X    |       | 17-    |
| NP_ATLAS       | SPXE10057346 | 56    | 407100  | 6708700  | 0      | 0    |                  | Aepyprymnus rufescens       | Rufous Bellong        | Narrow Pass Fire Trail   | X    |       | 17-    |
| NP_ATLAS       | 61204-HO     | 56    | 408500  | 6710500  | 0      | 0    |                  | Dasyurus maculatus          | Tiger Quoll           | Mann River Nature Reserve, half way up Narrow Pass fire trail to O | O    |       | 04-    |
| NP_ATLAS       | SPXE10060728 | 56    | 407100  | 6707800  | 0      | 0    |                  | Dasyurus maculatus          | Tiger Quoll           | Narrow Pass Fire Trail   | H    |       | 16-    |
| NP_ATLAS       | SPXE10073240 | 56    | 409600  | 6703200  | 0      | 0    |                  | Dasyurus maculatus          | Tiger Quoll           | 1.1 km south along Lands End Fire Trail from Lands End Rd((pri     | H    |       | 16-    |
| NP_ATLAS       | SPXE10061075 | 56    | 407100  | 6707800  | 0      | 0    |                  | Dasyurus maculatus          | Tiger Quoll           | Narrow Pass Fire Trail   | O    |       | 17-    |
| NP_ATLAS       | SPXE10060521 | 56    | 407100  | 6707800  | 0      | 0    |                  | Dasyurus maculatus          | Tiger Quoll           | Narrow Pass Fire Trail   | T    |       | 20-    |
| NP_ATLAS       | SPXE10049581 | 56    | 409600  | 6703200  | 0      | 0    |                  | Calyptrorhynchus lathami    | Glossy Black-Cockatoo | 1.1 km south along Lands End Fire Trail from Lands End Rd((pri     | O    |       | 15-    |
| Compartment ID |              | 0     |         | Total    |        | 8    |                  |                             |                       |  |      |       |        |
| Forest ID      |              | 0     |         | Total    |        | 8    |                  |                             |                       |  |      |       |        |
| NP_ATLAS       | SPXE10045055 | 56    | 420900  | 6695300  | 309    | 126  |                  | Falsistretella lasmaniensis | Eastern Falsistrelle  | 0.4 km north along London Bridge Rd from London Bridge SF((bo T    |      |       | 07-    |
| NP_ATLAS       | SPXE10068793 | 56    | 420900  | 6695300  | 309    | 126  |                  | Calyptrorhynchus lathami    | Glossy Black-Cockatoo | FIRE DAM LONDON BRIDGE ROAD  | W    |       | 05-    |
| Compartment ID |              | 126   |         | Total    |        | 2    |                  |                             |                       |  |      |       |        |
| Forest ID      |              | 309   |         | Total    |        | 2    |                  |                             |                       |  |      |       |        |
| GLEEIS91       | 7644-B       | 56    | 410800  | 6708025  | 311    |      | SMITH, Dr Andrew | Falco hypoleucos            | Gray Falcon           |  | O    |       | 28-    |
| GLEEIS91       | 7531-B       | 56    | 415900  | 6709200  | 311    |      | SMITH, Dr Andrew | Calyptrorhynchus lathami    | Glossy Black-Cockatoo |  | O    |       | 28-    |
| GLEEIS91       | 7779-B       | 56    | 408175  | 6704700  | 311    |      | SMITH, Dr Andrew | Calyptrorhynchus lathami    | Glossy Black-Cockatoo |  | O    |       | 28-    |
| GLEEIS91       | 7677-B       | 56    | 410500  | 6707400  | 311    |      | SMITH, Dr Andrew | Falco hypoleucos            | Gray Falcon           |  | O    |       | 28-    |
| GLEEIS91       | 2193         | 56    | 411050  | 6703250  | 311    |      | SMITH, Dr Andrew | Calyptrorhynchus lathami    | Glossy Black-Cockatoo |  | F    |       | 29-    |
| Compartment ID |              | Total |         | 5        |        |      |                  |                             |                       |  |      |       |        |
| NP_ATLAS       | SPXE10075193 | 56    | 415800  | 6709100  | 311    | 75   |                  | Ninox strenua               | Powerful Owl          | 4.6 km east along Springs Road from Sleeve Rd                      | W    |       | 19-    |
| Compartment ID |              | 75    |         | Total    |        | 1    |                  |                             |                       |  |      |       |        |
| NP_ATLAS       | SPXE10070637 | 56    | 409200  | 6705100  | 311    | 82   |                  | Calyptrorhynchus lathami    | Glossy Black-Cockatoo | SPRINGS ROAD   | O    |       | 17-    |
| NP_ATLAS       | SPXE10075204 | 56    | 409900  | 6705500  | 311    | 82   |                  | Ninox strenua               | Powerful Owl          | 1.6 km north along Springs Rd from Lands End Rd                    | W    |       | 15-    |
| NP_ATLAS       | SPXE10049544 | 56    | 409900  | 6705500  | 311    | 82   |                  | Calyptrorhynchus lathami    | Glossy Black-Cockatoo | 1.6 km north along Springs Rd from Lands End Rd                    | O    |       | 15-    |
| NP_ATLAS       | SPXE10076817 | 56    | 409000  | 6704400  | 311    | 82   |                  | Ninox strenua               | Powerful Owl          | 300 m east of Springs Rd on Lands End Rd                           | W    |       | 16-    |
| NP_ATLAS       | SPXE10073241 | 56    | 409000  | 6704400  | 311    | 82   |                  | Dasyurus maculatus          | Tiger Quoll           | 300 m east of Springs Rd on Lands End Rd                           | H    |       | 16-    |
| NP_ATLAS       | SPXE10049620 | 56    | 409000  | 6704400  | 311    | 82   |                  | Calyptrorhynchus lathami    | Glossy Black-Cockatoo | 300 m east of Springs Rd on Lands End Rd                           | O    |       | 15-    |
| Compartment ID |              | 82    |         | Total    |        | 6    |                  |                             |                       |  |      |       |        |
| NP_ATLAS       | SPXE10055264 | 56    | 408100  | 6704200  | 311    | 83   |                  | Calyptrorhynchus lathami    | Glossy Black-Cockatoo | Approximately 300 m south-west of the junction between Springs O   |      |       | 05-    |
| Compartment ID |              | 83    |         | Total    |        | 1    |                  |                             |                       |  |      |       |        |
| NP_ATLAS       | SPXE10070438 | 56    | 409700  | 6703300  | 311    | 84   |                  | Calyptrorhynchus lathami    | Glossy Black-Cockatoo | LANDS END FIRE TRAIL   | W    |       | 17-    |
| NP_ATLAS       | SPXE10057341 | 56    | 409600  | 6703900  | 311    | 84   |                  | Aepyprymnus rufescens       | Rufous Bellong        | Lands End Rd and Lands End Trail                                   | X    |       | 19-    |
| Compartment ID |              | 84    |         | Total    |        | 2    |                  |                             |                       |  |      |       |        |
| NP_ATLAS       | 92830-035    | 56    | 415000  | 6704000  | 311    | 87   |                  | Tyto novaehollandiae        | Masked Owl            | Brother State Forest   | O    |       | 01-    |
| NP_ATLAS       | 61161-HO     | 56    | 413200  | 6703800  | 311    | 87   |                  | Ninox strenua               | Powerful Owl          | 3km down Howitts Peak Road from intersection with Lands End        | O    |       | 03-    |
| NP_ATLAS       | 92804-035    | 56    | 415000  | 6704000  | 311    | 87   |                  | Ninox strenua               | Powerful Owl          | Brother State Forest   | O    |       | 01-    |
| NP_ATLAS       | 92803-035    | 56    | 415000  | 6704000  | 311    | 87   |                  | Ninox strenua               | Powerful Owl          | Brother State Forest   | O    |       | 01-    |
| Compartment ID |              | 87    |         | Total    |        | 4    |                  |                             |                       |  |      |       |        |



## Fauna Data - Schedule 1 and 2 Sightings

( AMGEAST >= 407000 ) AND ( AMGEAST <=421500 ) AND ( AMG NORTH >= 6694100 ) AND ( AMG NORTH <= 6710500 )

FPE Environmental Database

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| Source Ref      |            | AMG Coordinates |         |          |        |      | Recorder Name | Scientific Name           | Common Name           | Location                                | Type Distr Ref. D |     |
|-----------------|------------|-----------------|---------|----------|--------|------|---------------|---------------------------|-----------------------|---|-------------------|-----|
|                 |            | Zone            | Easting | Northing | Forest | Cpt. |               |                           |                       |   |                   |     |
| NP_ATLAS        | 12227-AGIS | 56              | 411800  | 6701200  | 311    | 94   |               | Calyptrorhynchus lathamii | Glossy Black-Cockatoo | Pilot Range Road. Brothers State Forest | O                 | 23- |
| Compartment ID  |            | 87              | Total   |          |        | 1    |               |                           |                       |   |                   |     |
| Forest ID       |            | 311             | Total   |          |        | 20   |               |                           |                       |   |                   |     |
| Management Area |            | 22              | Total   |          |        | 30   |               |                           |                       |   |                   |     |
| District        |            | 12              | Total   |          |        | 30   |               |                           |                       |   |                   |     |

--- End Of Report ---

Northern Rivers Region - Threatened Species Pre-logging and Pre-roading Survey

Northern Rivers REGION GLEN INNES MANAGEMENT AREA  
 STATE FOREST: BROTHER SF  
 SURVEY REPORT NO: Brothsr96 COMPARTMENT 89, 90, & 96

**PART B. Flora and Threatened Fauna Features Traverse**

Net Area: 832.5 Hectares  
 Traverse Length: 16.8 kilometres (route of traverses on attached map)  
 Surveyed By: Robert Kooyman  
 Duration of Traverse: 32 hrs C89 = 5.0km, C90 = 5.0km, C96 = 6.8km.

*1. Conservation Protocol Appendix 1 Flora Detections*

| Species Name     | AMGEast | AMGNth. | Locality Description | Date   | Observers Name | Number | Count approx. |
|------------------|---------|---------|----------------------|--------|----------------|--------|---------------|
| Dodonea megazyga | 415220  | 6701180 | Cmpt 96              | 1/5/98 | Robert Kooyman | 5      | C             |

Notes: ROTAP species 3RCa. Not schedule 1 or 2.

Location of detections shown on attached map.

Threatened Flora Individuals or Populations are marked in the field.

*2. Conservation Protocol Threatened Fauna Features Detected*

| Feature Type                      | Marked in Field | Marked on Map |
|-----------------------------------|-----------------|---------------|
| Glossy Black Cockatoo feed sites. | yes             | yes           |
| Wet areas, small swamps.          | no              | yes           |
| Rocky outcrops                    | no              | refer HP      |

Notes: Extensive rocky areas, and rock outcrops not mapped?

Number of Data Sheets Attached: see field notes

Northern Rivers REGION GLEN INNES MANAGEMENT AREA  
 STATE FOREST: BROTHER SF  
 SURVEY REPORT NO: Brothsr96 COMPARTMENT 89, 90,& 96

## PART C: TARGETED FAUNA SURVEYS

### 1. Assessment of Surveys Required

| Survey Type             | Previous Surveys (Date) | Survey Required (Y/N/IP <sup>1</sup> ) |
|-------------------------|-------------------------|--|
| Spotlight               | 12/97                   | Y                                      |
| Nocturnal Call Playback | 12/97                   | Y                                      |
| Hairtubes               |                         | IP                                     |
| Scat and Track          | 12/97                   | Y                                      |
| Riparian Frog           | 12/97                   | Y, IP                                  |
| Non-riparian Frog       | 12/97                   | Y, IP                                  |
| Micro Bats              | 12/97                   | Y, IP                                  |
| Small Mammals           |                         | N                                      |
| Diurnal Birds           | 12/97                   | Y                                      |
| Reptiles                | 12/97                   | N                                      |

<sup>1</sup>IP = implement prescription without survey where required (takes into account seasonal constraints)

Notes: Previous surveys in cmpts. 94 & 95. Refer to Kooyman et al. 12/97 (Conservation Survey Protocol surveys).

### 2. Surveys Undertaken

| Survey Type          | Date Undertaken | Time Spent      | Undertaken By       |
|----------------------|-----------------|-----------------|---------------------|
| F&F integ Transect   | 21/4/98         | 2 hours         | Robert Kooyman      |
| F&F integ Transect   | 22/4/98         | 6 hours         | Robert Kooyman      |
| F&F integ Transect   | 28/4/98         | 9 hours         | Robert Kooyman      |
| F&F integ Transect   | 29/4/98         | 10 hours        | Robert Kooyman      |
| F&F integ Transect   | 1/5/98          | 5 hours         | Robert Kooyman      |
| Call Playback/listen | 21/4/98 RK1     | 3 hours         | Robert Kooyman      |
| Call Playback/listen | 27/4/98 RK2     | 3 hours         | Robert Kooyman      |
| Call Playback/listen | 28/4/98 RK3     | 2 hours         | Robert Kooyman      |
| Call Playback/listen | 29/4/98 RK4     | 3 hours 30 mins | Robert Kooyman      |
| Call playback        | 19/3/98 site 1  | 1 hour          | Harvey,K & Herklots |
| Call playback        | 21/4/98 site 1  | 1 hour 5 mins   | Harvey,K & Herklots |
| Call playback        | 19/3/98 site 2  | 1 hour 15 mins  | Harvey,K & Herklots |
| Call playback        | 21/4/98 site 2  | 1 hour          | Harvey,K & Herklots |
| Call playback        | 2/6/98 site 3   | 45 mins         | Robyn Herklots      |
| Call playback        | 3/6/98 site 3   | 40 mins         | Robyn Herklots      |
| Call playback        | 3/6/98 site 4   | 45 mins         | Douglas & Herklots  |



Northern Rivers Region - Threatened Species Pre-logging and Pre-roading Survey

|                   |                |                  |                               |
|-------------------|----------------|------------------|-------------------------------|
| Call playback     | 4/6/98 site 4  | 40 mins          | Douglas & Herklots            |
| Call playback     | 21/4/98 site 5 | 45 mins          | Noel Douglas                  |
| Spotlight – walk  | 27/4/98 RK2    | 1 hour           | Robert Kooyman                |
| Spotlight – walk  | 18/3/98        | 1 hour           | Douglas & Harvey,N.           |
| Spotlight – drive | 19/3/98        | 1 hour           | Douglas & Harvey,N.           |
| Spotlight – drive | 19/3/98        | 1 hour 30 mins   | Herklots & Harvey,K.          |
| Spotlight – walk  | 21/4/98        | 1 hour 45 mins   | Herklots & Harvey,K.          |
| Spotlight – walk  | 21/4/98        | 55 mins          | Douglas & Harvey,N.           |
| Spotlight – walk  | 3/6/98         | 50 mins          | Douglas & Harvey,N.           |
| Spotlight – walk  | 3/6/98         | 2 hours 10 mins  | Douglas & Herklots            |
| Spotlight – walk  | 4/6/98         | 1 hour 55 mins   | Douglas & Herklots            |
| Spotlight – walk  | 2/6/98         | 55 mins          | Douglas, Harvey,N. & Hudson.  |
| Spotlight – walk  | 3/6/98         | 1 hour 5 mins    | Douglas, Harvey,N. & Hudson.  |
| Spotlight – walk  | 3/6/98         | 40 mins          | Harvey,N. Herklots, & Hudson. |
| Spotlight – walk  | 4/6/98         | 40 mins          | Harvey,N. Herklots, & Hudson. |
| Scat Transect     | 19/3/98        | 2 kms [distance] | Douglas & Harvey,N.           |
| Scat Transect     | 19/3/98        | 30 mins          | Herklots & Harvey,K.          |
| Scat Transect     | 19/3/98        | 1 hour           | Herklots & Harvey,K.          |
| Scat Transect     | 22/4/98        | 50 mins          | Herklots & Harvey,K.          |
| Sonar Survey      | 19/3/98        | 30 mins          | Douglas & Harvey,N.           |
| Sonar Survey      | 21/4/98        | 30 mins          | Noel Douglas                  |
| Harp Trap         | 18-20/3/98     | NA               | Harvey,K. & Herklots          |
| Harp Trap         | 18-20/3/98     | NA               | Harvey,K. & Herklots          |

Location of surveys shown on attached maps.

Notes: Diurnal bird surveys were integrated into flora searches, and integrated Flora and Fauna Surveys. No sch. 1 or 2 records.

Number of Data Sheets Attached: 21, plus field notes – Kooyman.

Northern Rivers Region - Threatened Species Pre-logging and Pre-roading Survey

Northern Rivers REGION GLEN INNES MANAGEMENT AREA

STATE FOREST: BROTHER SF

SURVEY REPORT NO: Brothsr96 COMPARTMENT 89, 90, & 96

**PART D. SURVEY RESULTS**

Prepared By: Robert Kooyman

Date: 5/98

*New Threatened Fauna Detections*

| Species Name                      | AMGEast | AMGNth. | Date    | Observation Type | Observers Name       | Survey/ Incidental   |
|-----------------------------------|---------|---------|---------|------------------|----------------------|----------------------|
| Powerful Owl                      | 414600  | 6703900 | 21/4/98 | Heard            | Robert Kooyman       | Playback response    |
| Powerful Owl                      | 415580  | 6704450 | 21/4/98 | Heard            | Robert Kooyman       | Playback response    |
| Glossy Black Cockatoo             | 412850  | 6703400 | 22/4/98 | Heard            | Robert Kooyman       | Traverse             |
| Sooty Owl                         | 414775  | 6701930 | 27/4/98 | Heard            | R.Kooyman            | Playback             |
| Sooty Owl                         | 414300  | 6701630 | 27/4/98 | Heard            | R.Kooyman            | Playback             |
| Sooty Owl                         | 415200  | 6701225 | 27/4/98 | Heard            | R.Kooyman            | Playback             |
| Powerful Owl                      | 414100  | 6701880 | 27/4/98 | Heard            | Robert Kooyman       | Incidental           |
| Sooty Owl                         | 415700  | 6701575 | 28/4/98 | Heard            | R.Kooyman            | Incidental           |
| Glossy Black Cockatoo             | 414920  | 6701500 | 28/4/98 | Heard, seen      | Robert Kooyman       | Traverse             |
| Powerful Owl                      | 414200  | 6702100 | 29/4/98 | Heard            | Robert Kooyman       | 1 hr after playback  |
| Masked Owl                        | 414520  | 6702130 | 29/4/98 | Heard            | R.Kooyman            | As above             |
| Glossy Black Cockatoo             | 414530  | 6702300 | 29/4/98 | feed site        | Robert Kooyman       | Traverse             |
| Rufous Bettong                    | 415200  | 6701150 | 1/5/98  | Seen             | Robert Kooyman       | Traverse             |
| <i>Falsistrellus tasmaniensis</i> | 413200  | 6701600 | 21/4/98 | Sonar            | Noel Douglas         | Sonar survey         |
| Sooty Owl                         | 413900  | 6701170 | 3/6/98  | Seen             | Robyn Herklots       | Playback & Spotlight |
| Glossy Black Cockatoo             | 414950  | 6703400 | 20/3/98 | [2] seen         | Douglas & Harvey, N. | Incidental           |
| Glossy Black Cockatoo             | 414500  | 6702600 | 20/3/98 | heard calls      | Douglas & Harvey, N. | Incidental           |
| Powerful Owl                      | 414150  | 6702900 | 21/4/98 | Calls            | Douglas & Harvey, N. | Playback response    |

Notes: Greater Glider [AMG references and maps] detection rates indicate relatively high numbers (in excess of 1/ha in some areas) requiring an increase in (hollow bearing) tree retention.

## **SUMMARY**

The results of the database search, threatened flora and fauna traverse and spotlighting, nocturnal callback surveys result in the implementation of the following threatened flora and fauna prescriptions:

- Powerful Owl.
- Masked Owl.
- Sooty Owl.
- Yellow-bellied Glider.
- CWR terrestrial mammals.
- Greater Glider (in conjunction with Powerful Owl prescription - applied throughout).
- Glossy Black Cockatoo.
- Rainforest.

- Attachments:**
1. Flora and Fauna Survey Report, Kooyman.
  2. Maps showing various transects, traverses, threatened species records, and survey locations.
  3. Maps showing Forest Types.
  4. Field notes / diaries.
  5. Species lists, flora.
  6. Species list, fauna.
  7. Datasheets.

**FLORA and FAUNA SURVEY of COMPARTMENTS 89, 90, & 96, BROTHER STATE FOREST.**

-prepared by Robert M. Kooyman, [FA- flora and fauna] Northern Rivers Region.  
12/6/98.

Results of field surveys are provided as field diary notes, data sheets, and species lists, with scheduled and target species records provided as AMG co-ordinants. Maps provide details of sample sites, playback locations, harp trap locations, sonar detection sites, species records and distributions, and extent and location of the various transects and traverses undertaken.

**Introduction:**

Flora and Fauna Surveys were conducted by Kooyman, [15/4/98, 21&22/4/98 and 27 - 30/4/98], with Harvey, K. and Douglas, N. et al [SFNSW], assisting with integrated fauna features searches, and the general and target species fauna surveys.

As part of the core survey team Robyn Herklots, and Nicole Harvey assisted with surveys of all fauna groups, assisted on one occasion by Karen Hudson.

Detailed analysis of recorded microchiropteran bat calls was conducted by Noel Douglas and Nicole Harvey.

**General Description of Survey Area:**

The three compartments cover an area of approx. 1000 hectares, with the proposed net loggable area adjusted to 832.5 hectares, after deletion of [mapped] deferred forest types, old-growth, fauna corridors, and the standard riparian and other exclusions.

Geology appears to be dominated by two main elements: the variously eroded granites, and the [volcanic] sediments and conglomerates from the main [Great-Dividing] range.

Granite derived soils are mostly brown, to grey-brown sandy clay loams, with sandy alluvium evident in creeks. There are areas of deeper brown earths [possible residual granodiorites - hornfels] in a number of areas along the main range, particularly in association with the higher peaks, and several areas on southern slopes. These areas are generally dominated by New England Blackbutt, Ft163, on the higher peaks, and Ft.3, 47 and 53. [with rainforest], on several southerly slopes (NB: Ft47&53 are not on the SFNSW Forest Type maps).

Altitudinal range varies from 1255m. to 820m. Slope classes vary from slight to moderate on the upper slopes and ridges, to moderate to steep in the remainder.

The vegetation of the area is only generally illustrated by the forest type map [SFNSW], with several forest types not included [see above]. Species lists for forest types, and a composite list for the area have been compiled, and are appended to this report as field notes. These provide an indicative sample of the various habitats, floristic alliances, forest types, transitional boundaries and overlaps.

The sequence of forest types largely follows the altitudinal, topographical, and soil gradients, and variations. Ft.163 [*E. andrewsii* subsp. *campanulata*, with *E. laevopinea*, *E. brunnea*, *E. obliqua*, *E. radiata*] occurs on the higher peaks and slopes in association with the granite derived soils, and extends onto the volcanic sediments, creating diffuse type boundaries with Ft.169, 152, 161, & 122. All these types have predominantly grassy

understoreys. Shrub layers are generally poorly developed in upslope areas except on rocky sites, and on steep, lower slopes. Some areas of regrowth are dominated by *Eucalyptus laevopinea*, with *E. brunnea*, *E. obliqua*, [sometimes dominant] on the lower slopes. Rainforest [Ft.3, 11] occurs along the main drainage lines, and extends upslope in the moist forest types on several of the southern slopes.

Along the creeks, there are several distinct riparian rainforest alliances, [eg Ft 3, 11, and the *Backhousia myrtifolia* alliance]. Details are provided in the species lists appended. Small areas of Ft.122, with *E.cameroni*, *E.caliginosa*[poss.], *E.obliqua*, *E.laevopinea*, *E.radiata*, occur in these compartments.

**Flora survey methodology:** Plant species recorded from each forest type [and habitat] were listed, and frequency of occurrence and stratum [canopy, sub-canopy] indicated. Walked traverses were mapped . [See field notes attached.]

Particular attention was directed to locating and recording the distribution and numbers of ROTAP plant species [Briggs and Leigh, 1995 Revised], and Schedules 1&2 [NSW Threatened Species Act, 1995] plant [and animal] species.

Botanical references used for study: Harden, G.J. Flora of NSW. vol. 1-4.

Flora of Australia. CSIRO. ABRIS-Canberra.

Flora of SEQld. vol.1-3, Stanley and Ross.

Eucalypts. Brooker and Kleinig. vol.1.

Orchids of Aust. Nicholls.

NEFBS - results, various reports.

Sig. Plants of Glen Innes M.A., and EIS - SFNSW.

**Rare, Threatened, or Significant Plants recorded in Brother SF. cmpts. 89,90,&96.**

No Schedule 1 or 2 species were recorded / collected.

ROTAP: *Dodonea megazyga* - 3RCa - recorded very infrequently in compartment 96, southern [mid] slopes, Ft 163, 169, 152, with shrubby understorey.

**Fauna survey methodology:** [Note seasonality constraints for micro bats, frogs, reptiles, seasonal birds]. Includes application of the pre-logging / roading survey design forming part of the updated Threatened Species Protocol [8/9/97], incidental records collected during flora survey and habitat assessments, as well as the results of integrated koala transect surveys, and includes -:

1. walked spotlight transects, one kilometre long [minimum], 100 watt light [with dimmers fitted].

minimum 10 minute listen at start and finish.

2. call playback for target species. Nocturnal -: powerful owl, masked owl, sooty owl, yellow bellied glider, koala, squirrel glider.

Diurnal -: eg. Bush Thick-knee.

Calls are started after a substantial listening period and played briefly at low volume. This is done to avoid disrupting localised activity of the target or other species which may respond [or be disturbed], and to maximise knowledge of actual habitat use, rather than gaining responses from further afield [at least initially]. Louder playback calls are then initiated if no clear response is heard.

3. transect and incidental scat collection and identification. - results of predator, and [remaining unidentified] non-predator scat analysis provided by Barbara Triggs. Scat transects were undertaken [refer to data sheets], and scat collection was integrated into all other traverse and transect samples.
4. track identification on sandy or soft sections of roads, tracks and creek areas.
5. extended listening time for calls, [ variable sample length, and dependent on conditions], targeting all playback target species listed above, and including other seasonally variable species where appropriate.
6. harp trapping and sonar detection for bat species.
7. frog surveys - creek transects, habitat searches, and call playback and recording.
8. search for all other features listed in the Threatened Species Protocol Survey Design while applying the above flora and fauna surveys. [this will be supplemented by the SFO while marking out and supervising harvesting operations].
9. hair-tube sampling - no hair-tube sampling was undertaken on this survey, thus potentially under sampling for a number of terrestrial and arboreal species, eg. tiger quoll, long-nosed potoroo, brush-tailed phascogale. Conservation protocols should be applied for these species, to ameliorate potential impacts of proposed operations.
10. one of us [Kooyman], camps out in the survey area every night, moving from site to site, [habitat to habitat] during the course of the survey. This provides a substantial increase in; listening time, incidental and opportunistic scheduled species records, diurnal and nocturnal survey effort, and overall survey time/effort.

#### Results of Fauna Surveys:

1. **Glossy Black Cockatoo** [*Calyptorhynchus lathami*] - sch.2, this species was located in all three surveyed compartments by calls and sightings. Suitable habitat is widespread throughout the area with most *Allocasuarina* spp present on rocky sites or steeper lower slopes and along the creek lines. At the time of survey, GBC activity was apparently concentrated in these areas, and several feed sites were marked. Application of the Conservation Protocol and retention of any feed trees or nest sites located during the mark-up phase should assist this species.
2. **Square tailed Kite** [*Lophoictinia isura*] - sch.2, not recorded on this survey, but is regarded as likely to use the larger river valleys, flood plains, and woodlands of the area. A recent record from Girard SF [SFNSW survey-Kooyman 1998] Tenterfield District.
3. **Red Goshawk** [*Erythrotriorchis radiatus*] - sch.1, not recorded on this survey, but there are records for this species from the Clarence and Richmond River valleys and associated forests. This species is thought to favour the higher nutrient / higher productivity tall open forests and riparian vegetation of the larger river valleys, where prey species are abundant. However, it extends up to 1000 metres in altitude in suitable forest [Debus et al., 1991].

4. **Bush Thick-knee** [*Burhinus grallarius*] - sch.1, not seen or heard on this survey. There is suitable habitat in the survey area, and historic records for this species on the tablelands, however there are no recent records in proximity to the survey area. Searches for this species were incorporated into the general flora traverses in suitable habitat, which equates with almost the whole area. Playback sampling was undertaken at sites in the compartments, and one of us [Kooyman] camped in suitable habitat over the survey period to extend available listening time.

5. **Regent Honey-eater** [*Xanthomyza phrygia*]- sch.1, not recorded on this survey. Nectar resources were limited at the time of survey. Note seasonality factor.

6. **Swift Parrot** [*Lathamus discolor*]- sch.2, not recorded on this survey. The nectar resource was limited to just a few species during the survey time.

7. **Powerful owl** [*Ninox strenua*] - sch.2, this species was recorded calling on several occasions during this survey, in all surveyed compartments. Playback and listening was conducted for this species over the early part of the survey period, with several records from playback response, and the others from unprompted calling in the main valley in the centre of the survey area. This area appears to be the core moist forest habitat and roost area for this species, with the surrounding Ft163, 152, 169, providing the key habitat resources for prey species such as the Greater Glider.

8. **Masked owl** [*Tyto novaehollandiae*] - sch.2, this species was recorded from calls heard [Kooyman] during this survey. Suitable habitat for this species occurs over much of the survey area, ie. the dry, open forest types with a grassy understorey. Persistent calling and chattering in the area of the record from this survey may indicate the commencement of breeding/nesting activity.

9. **Torquoise Parrot** [*Neophema pulchella*] - sch.2, not recorded this survey.

10. **Brush-tailed Rock Wallaby** [*Petrogale penicellata*] - sch.2. This species was not observed during the course of the survey [nor are there any historic records], and no scats collected could be attributed to this species. Potential habitat for brush-tailed rock wallaby was located south of the survey area, [in the Henry River catchment], where there are areas of steep rocky terrain. The survey area proper lacks suitable habitat for this species.

11. **Tiger Quoll** [*Dasyurus maculatus*] - sch.2, suitable habitat occurs in the area [particularly the higher altitude and moist areas of the main range] however the species was not recorded during this survey. This may reflect the lack of survey effort [no hair-tubing or trapping was undertaken] rather than a true indication of presence or absence in what is 'known habitat' [see previous records nearby]. Searches of rocky areas suitable for latrine sites or den areas were integrated into the general flora and fauna surveys, and the transect based 'integrated fauna features' and target species surveys. None were located, however these searches will be supplemented by SFO habitat and 'fauna

features' searches during mark up stage of operations. Given the likely occurrence of this species in the harvestable area, and known records from nearby, SFO should be aware of the likely presence of latrine and den sites in the area.

12. Yellow bellied Glider [Petaurus australis] - sch.2, this species was recorded in the western area of cmpt. 96 during a previous survey in the area [cmpts 94 & 95, Report dated 24/12/97, Kooyman et al]. Yellow-bellied gliders are very mobile and can cover large areas, depending on the availability of feeding resources, so the SFO should look for V-notch and other incisions during mark-up and supervision stages of operations over the whole of the area, and in particular the areas with gum-barked trees. The previous survey referred to above provided significant new records for this species in the Glen Innes MA, and were the first records for Brother SE.

13. Squirrel Glider [Petaurus norfolcensis] - sch.2. Not recorded on this survey. No response to playback calls. Habitat is generally suitable, particularly the drier, open forest habitat with Banksia spp and Acacia spp.

14. Koala [Phascolarctos cinereus] - sch.2, - Results of Koala surveys indicate that no evidence of Koala activity was found in the survey area. No scats or other indications of this species were located during the survey, either during random traverses, along transect lines, or as a result of other target species surveys.

15. Rufous Bettong [Aepyprymnus rufescens] - sch.2. Recorded during this survey from a brief sighting of an animal disturbed during daylight in cmpt.96. Generally good to excellent habitat throughout the dry, grassy, open forest in the survey area. A range of non predator scats were collected, not all have been identified. Spotlighting and scat records indicate a very low strike rate for CWR terrestrial mammals. This is likely to be an indication of the impact of the fire and grazing history, and the presence of feral predators [fox and cat].

16. Brush tailed Phascogale [Phascogale tapoatofa] - sch.2, not recorded this survey but the area has some good dry woodland /open forest habitat. No hair-tubing or trapping was undertaken on this survey, thus effectively undersampling for a species which is otherwise difficult to detect and which seems restricted to areas closer to the coast. No previous records for the survey area.

17. Microchiropteran Bats - [Survey Protocol requires a minimum of two harp traps for two nights per. 200ha in suitable habitat]. In addition two Anabat Sonar sites were established to provide an indication [seasonal] of microchiropteran bat activity in the study area. Seasonality factors were a major constraint on this survey. The previous surveys of cmpt 94 & 95 [when a six night sample was conducted], provided records for seven species, including two, schedule 2 species. [see maps and data sheets, report 12/97] Records from cmpt 94/5 survey, 12/97 - Kooyman et al.

Kerivoula papuensis -sch.2, one harp-trap capture.



*Scoteanax rueppellii* - sch.2, [one] sonar record.

*Chalinolobus morio* - [five] sonar records.

*Scotorepens orion* - [twenty-seven] sonar records.

*Vespadelus pumilus* - [two] sonar records and [one] harp-trap capture.

*Vespadelus regulus* - [thirteen] sonar records, and [one] harp-trap capture.

*Vespadelus darlingtoni* - [five] sonar records.

Records from this survey, cmpt 89, 90, 96.

*Falsistrellus tasmaniensis* - sch.2, [three] sonar records, [prob]

*Scotorepens orion* - [ten] sonar records.

Bat work was done by Noel Douglas and Nicole Harvey. Sonar calls were recorded directly onto laptop computer and later analysed and then compared to library calls by Douglas and N. Harvey. Sonar calls are ascribed file names and are retained for future reference or verification. A comprehensive library of calls for the NE of NSW is not yet available, limiting our ability in some cases to ascribe species names to recorded calls. We are currently expanding our call library and this situation should steadily improve to the limits of the technology [and with all survey calls retained for future review].

No mine shafts were detected in the mapped harvestable area. No caves were detected. Any such sites located during operations should be buffered from proposed operations to ameliorate potential impacts on potential roost / maternity / torpor sites.

Harp trapping for *Kerivoula papuensis* and *Myotis adversus* in suitable habitat [flyways and larger pools along rainforest creeks], resulted in one capture of *Kerivoula papuensis* and nil captures of *Myotis adversus* on the first surveys [12/97] in cmpts 94/5, with no records for these species on this survey. The habitat has been considered excellent for both species and there is a known occurrence of *Kerivoula papuensis* adjacent to the survey area.

Note seasonality factors for current survey.

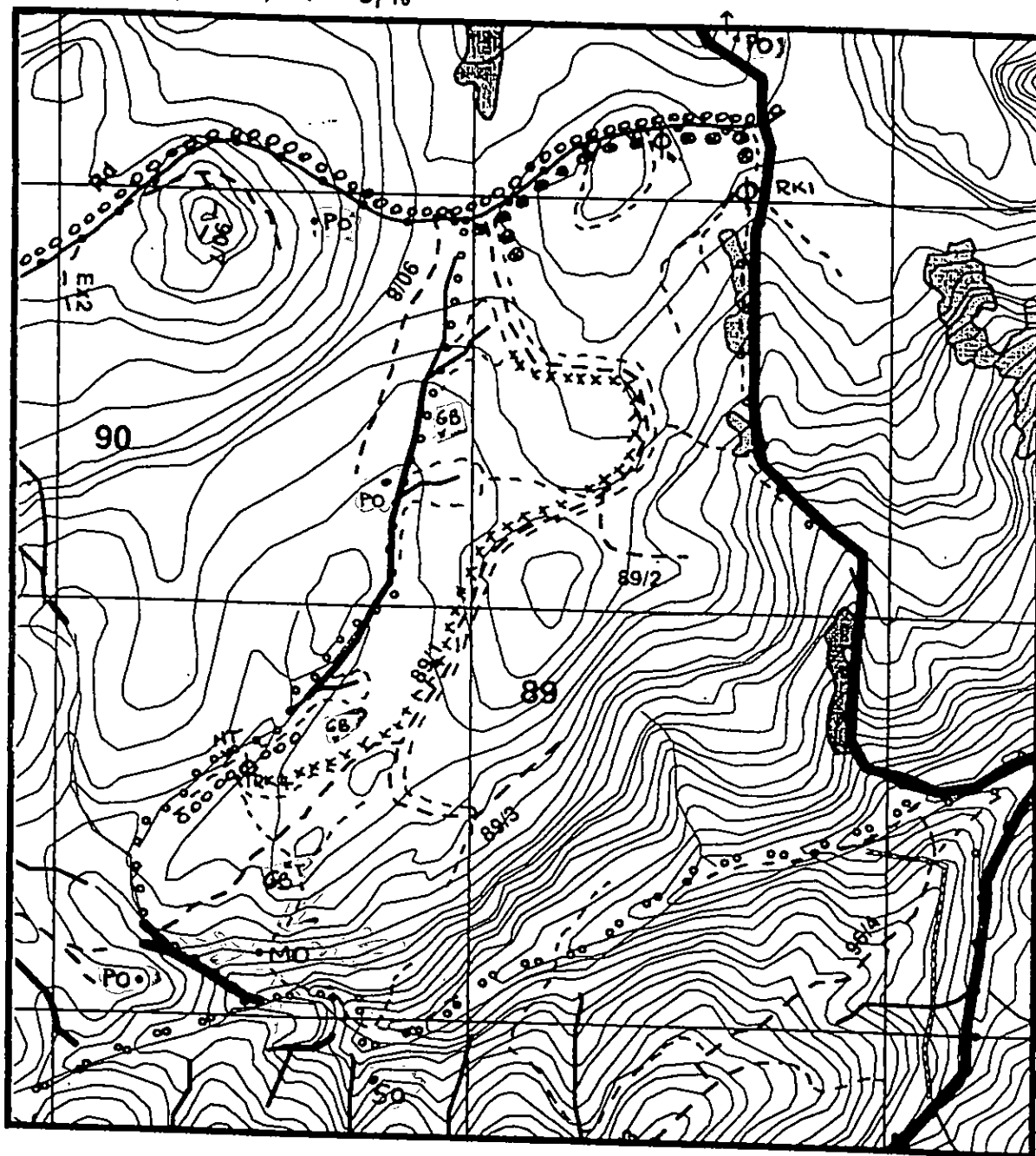
18. Frog species - Transect and habitat based surveys were conducted at a number of sites, and habitat assessments and searches were integrated into the other surveys [see survey sheets and maps for details]. The weather was cool to cold, with rain, at the start of the survey, becoming dry and warm, in the second week. Species of frog recorded during survey include -: *Litoria peronii*, *Litoria chloris*, *Litoria revelata*, *Litoria pearsoniana*, *Litoria lesueuri*, *Lechriodus fletcheri*, *Limnodynastes peronii*, *Limnodynastes dumerilii*, *Pseudophryne coriacea*, *Crinia signifera*. Habitat assessments and distribution of species [Gilmore and Parnaby 1994] indicate possible occurrence in the survey area of *Mixophyes balbus*, *Litoria subglandulosa*, *Litoria piperata*, *Litoria castanea*.

**19. Hastings River Mouse** [*Pseudomys oralis*] sch.1 - not recorded this survey. Some potential habitat in the south-western section of cmpt.96 and 89. Small mammal trapping was not conducted on this survey. Suitable habitat was restricted to several small swamp / sedge areas in cmpt 89, and several areas with grassy/sedge understorey, close to the creeks and rocky areas. Altitude, and the grazing and fire history are likely to be major factors in determining this species presence or absence in the survey area. This area is not within the species' known distribution, and there are no records of this species nearby.

NORTHERN RIVERS REGION - GLEN INNES MANAGEMENT AREA  
HARVEST PLAN OPERATIONAL MAP  
COMPARTMENT 89,90,96  
BROTHER STATE FOREST  
HENRY RIVER MAP SHEET  
HARVEST PLAN NUMBER GH 9714  
SCALE 1:15 000



BROTHER C.MPT. 89. KOOYMAN 5/98



200 0 200 400 600 800 1000 1200 Meters

BOUNDARIES

- State Forest Boundary
- ○ Compartment Boundaries

ROADS

- 'Natural Surface
- Sealed or Gravelled
- ..... Four wheel drive
- Proposed Road

NON HARVEST AREAS

- Rainforest

NORMAL PRESCRIPTIONS

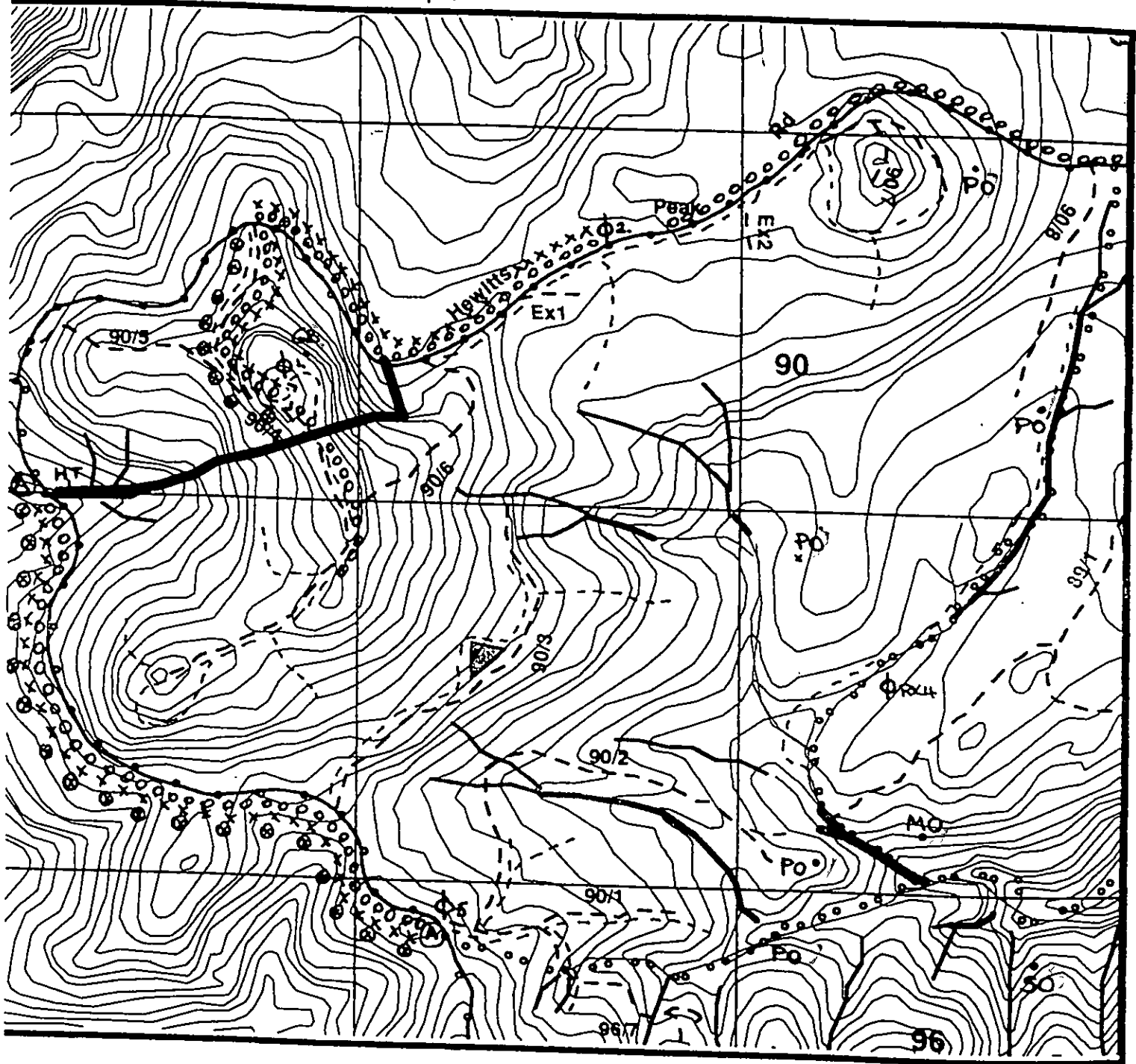
- Fence

WATERCOURSES & DRAINAGE

- External
- 1st Order Stream (10m buffer)
- 2nd Order Stream (20m Buffer)
- 3rd Order Stream (40m buffer)
- × Approved Crossings

- ○ ○ ○ ○ - Walking Spotlight Transect.
- × × × × × - Driven Spotlight Transect
- φ PLAYBACK SITES.
- FLORA AND FAUNA TRAVERSERS (KOOYMAN)
- SO. - SOOTY OWL
- PO - POWERFUL OWL
- MO - MASKED OWL
- GB - GLOSSY BLACK COCKATOO
- HT - Harp Trap.
- ● ● - Scat Transect

BROTHERL CMT. 90. KOOYMAN 5/98



200 0 200 400 600 800 1000 1200 Meters

BOUNDARIES

- State Forest Boundary
- Compartment Boundaries

ROADS

- Natural Surface
- Scaled or Gravelled
- Four wheel drive
- Proposed Road

NON HARVEST AREAS

- Rainforest

NORMAL PRESCRIPTIONS

- Fence

WATERCOURSES & DRAINAGE

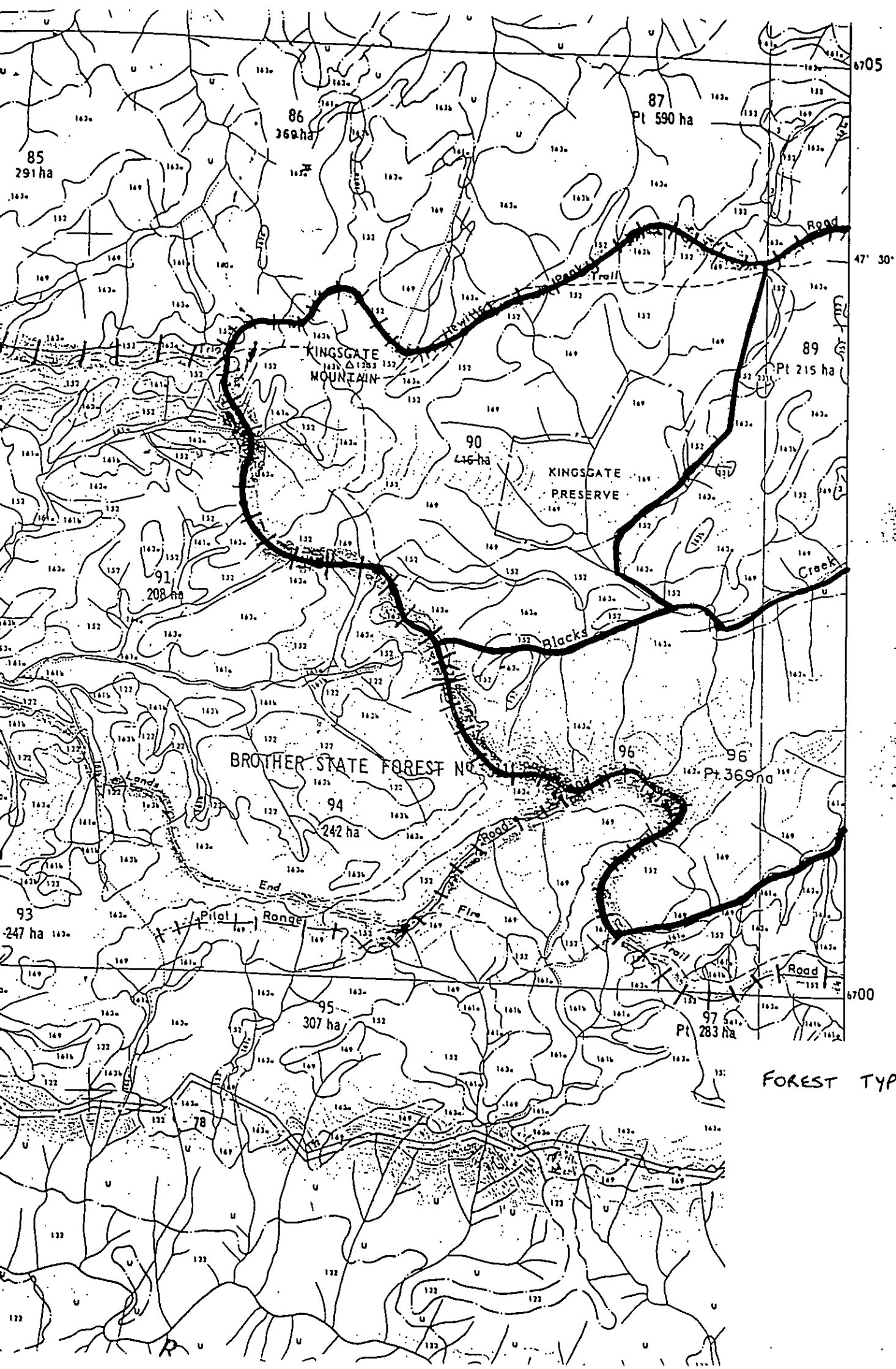
- External
- 1st Order Stream (10m buffer)
- 2nd Order Stream (20m Buffer)
- 3rd Order Stream (40m buffer)
- Approved Crossings

0000 - Walking Spotlight Transect    x x x - Driven Spotlight Transect.  
 ----- FLORA AND FAUNA TRAVERSES (KOOYMAN)    φ PLAYBACK SITE    (A) - Sonar Site.  
 SO - SOOTY OWL    PO - POWERFUL OWL    MO - MASKED OWL  
 GB - Glossy Black Cuckoo

SCALE 1:15 000



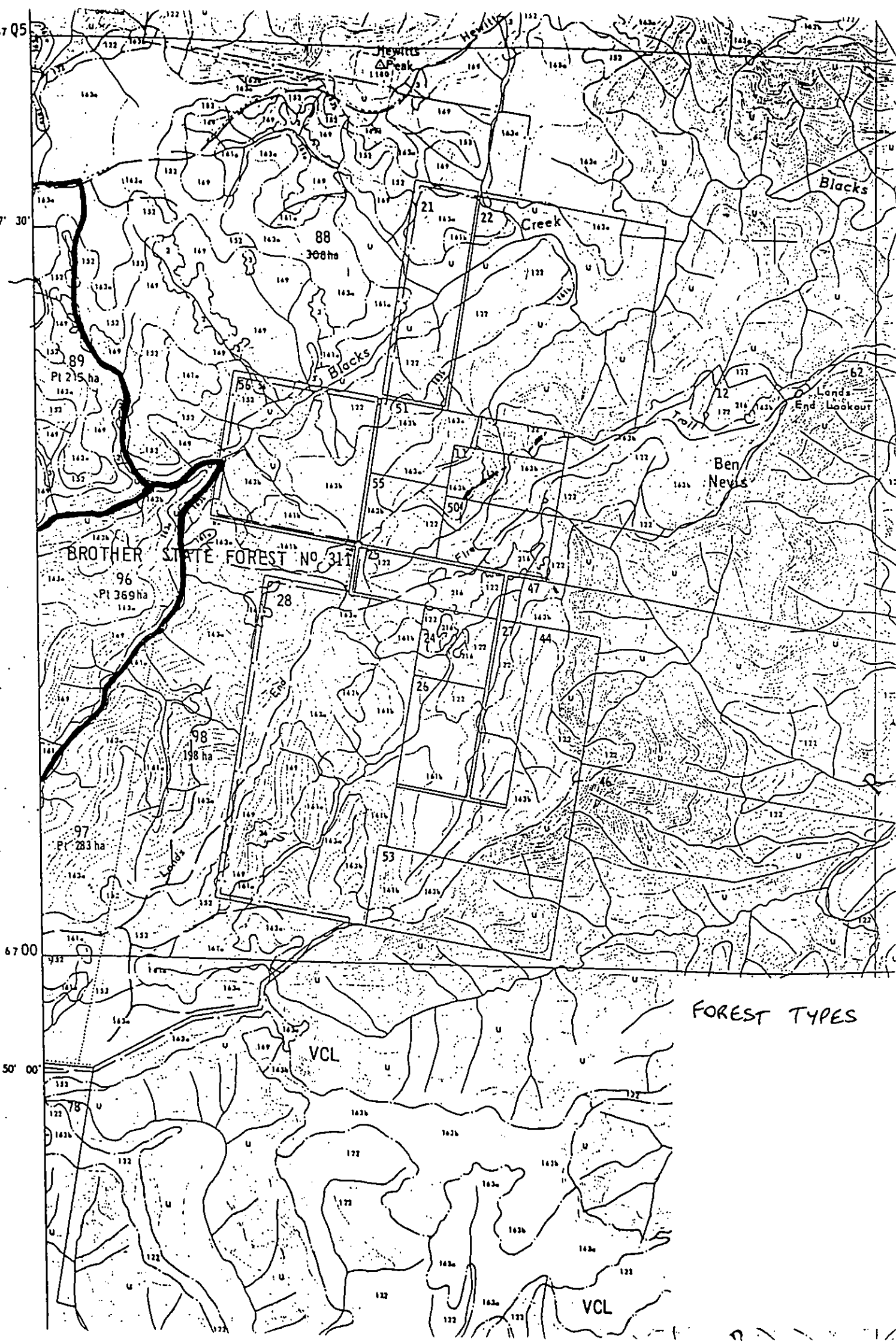
SO - SOOTY OWL      PO - POWERFUL OWL      MO - MASKED OWL  
RB - RUFOUS BETTONG      GB - GLOSSY BLACK COCKATOO      YGB =



FOREST TYPES

67° 05'

47° 30'



FOREST TYPES

Tue.

Beothuk S.F.

Robert Korman

21/4/98 ... travel from East Darrigo - Darrigo - Ebar - Guyra - Glen Innes -  
Beothuk S.F. - 2pm - Veg. surveys, check tracks etc.  
Eastern Grey Kangaroo ....

Colony Project  
0234

6:00pm - End. Meet up with Karin, Noel, Edwin.

6:30pm - Start Playbacks - : Lister - : Boobade owl, Sugar Glider,

P.O. - no response ... then calls 10-15 min later ... (see notes for details  
M.O. - no response, S.O. - no response, YBG - no response. <sup>Amica</sup>)

7:30pm - Lister ....: spottail GG. (Nestor).

light drizzle evening: end. 9:00pm.

22/4/98 (Wed.) - light drizzle ... Veg. surveys - Cnpt. 90, 89.

Rufous Bunting - seen ... Glossy Black Cuckoo - feeding - Allcock. tow.

Mon. 27/4/98: Prep. for trip ... Travel to Beothuk S.F. <sup>Wendy, clear</sup> weather: cool, clear, no moon, <sup>light breeze to no wind.</sup> +11°C 7:30pm  
- set up camp in Cnpt. 96 ... Top end of track into Cnpt. 96. (falling ...)

6:00pm Lister: Boobade owl.

6:30pm - Powerful owl - NNE (30°) from camp ... several calls, non quiet ...

P.O. Playback discontinued last week ... several records in survey area ...  
90% - check ...

7:00pm - calls similar to Masked Owl (persistent / intermittent ...) use playback to check  
(sounds like Barn Owl ... ? distant)

Playback <sup>Rx2</sup> M.O. - no response spottail - GG - Nestor ... GG x (10) - along ridge 500m  
S.O. - no response - then 7:30pm - Sooty Owl - bomb-drop calls  
YBG - no response ...

Playback again ... several response calls ...

\* new record for Brown sp. - S.O. Cnpt. 90/96 ... Aug. 89

7:54pm - S.O. returns, near ridge, 'trilling' calls ... several birds calling ...  
(western extent of range ... ?)

9:00pm - White Throated Nightjar



Brother SF.

Robert Kooyman 4/98

Tues. 28/4/98.

7:30am to

Flora & Fauna Traverse / Traverse Survey - Cmp. ab / pas. 90/89.

5:00pm \* 6BC - Glowing Blade Cockatoo(s) - calls (dramatic from camp - Cal-ent N.E.).

6:00pm - weather, cool, clear, warm day  $>22^{\circ}\text{C}$ , light breeze, to no wind.  
humidity - 40% +  $15^{\circ}\text{C}$  at 7:30pm.

\* S.O. (Sooty Owl) - calls from toward gully / major creek (upstream).

Playback calls - : YBG - no response

RE3

Masked Owl - no response

[Records for P.O. & S.O. nearby so these calls not used]

(distant, brief... not positive).

LISTEN: Booback out(s) (2)

Sugar Glider (1)

8:00pm - END. set up camp etc.

Wed. 29/4/98

7:00am Flora and Fauna Survey - Specimen I.D. etc....

Start in Cmp. 96 - eastern creek & Rain Forest over / Fr. 47 / SS - RF. see special list  
(NOT ON FI. MAPS)

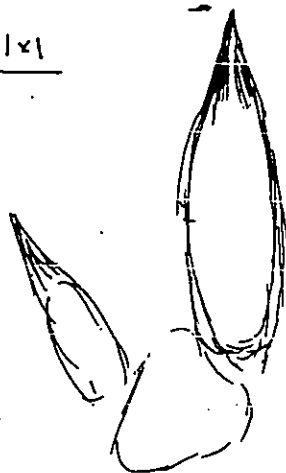
work SE to creek - excellent Enigment - \* Sooty Owl - KARWOLLA PAPUENSIS - HABITAT area.....

\* prescription for entire creek system.....

- extensive digging in one area along creek / sandy soil / otherwise - footprint.....

- diggings not conical like Booback .... remnant of potaroo?

1x1



12:30pm - \* I.D. Specimen & work with Radio Technician on Kungahra Mtn. to 6:00pm... Vg. sample to 7:30pm

RE4

\* 6:30pm - LISTEN - 7:00pm - Booback out

- Booback

PLAYBACK calls - : S.O. - no response  
M.O. - no response  
YBG - no response  
P.O. - no response

- better only Cmp. 99 (N.W. 1) close to creek & other Cmp.

weath: fine, partly cloudy, day temp.  $>22^{\circ}\text{C}$ , light breeze.

night - : very dark, clear, cool, +  $15^{\circ}\text{C}$  at 8:30pm. no wind.

Gully area / open forest - ... humidity 50% ....

SAND PRINT.

LISTEN: Sugar Glider.  
Booback Owl

END: 8:30pm... 4:00pm \* P.O. calling....

LISTEN: Sugar Glider, P.O. calling until 9:00pm

\* Persistent / intermittent - 100% ... (see map for details) 9:47pm - calls, clear....

\* Thursday: Ft. 11. Riparian (Cmp. 100). 89/90 Gaud....

new Order Gaud....

Thurs. 30/4/98

Beaver S.F.

4/98. Robert Kauffman

7:00am - I.D. Specimens, etc. Plan to look at part Kingsgate F.R. / M.O. & P.O. areas / wet areas /  
Cmpt. 89 / 90. S.E. from R&L camp -- to Main Crk. Follow creek downstream.

GBC - feed trees / on rocky knolls ... swcans Cmpt. 89.

Flora Surveys - Cmpt. 90, & 96 (in part) ... E. amplipetala ...

5:30pm: end.

6:00pm - Windy - no fauna survey ----

Friday 1/5/98 :

7:00am - I.D. Specimens, Flora & Fauna Surveys ... Cmpt. 96 (south / ss. valley)

E. oblique - E. schizra - E. brunnea etc ... E. laevipetala ...

± E. campulata - heavily lapped ... 40 yrs early for regrowth ...

\* *Dadenea megazantha* (Cotner) - located Cmpt. 96.

Brother SF. Cnpt. 89.

Robert Kooyman 4/98

Riparian (f. adigera) Rainforest sample.

Fr. 11.

Certhopetalum apetalum alliance.

SNVF / CNYFF

Fr. 163, adj.

Sm / 20-30m canopy ht.

- c/c Certhopetalum apetalum (c-v)
- c/c Callicoma serratifolia (o-)
- c/c Acmena smithii (o-)
- c/c Accacia viridata var. viridata (o-c) outer edge
- c/c Banksia integrifolia (o-c) outer edge
- c/c Doryphora saxifraga (o-c)
- c/c Schizanthus ovata (vo-o)
- c/c Calceolaria parviflora (o-c)
- c/c Cryptocarya dooreana (vo-a)
- c/c Stomsea woollii (vo-a).
- c/c Allocasuarina tarulosa (o) outer edge.
- c. Nostea longifolia (o-c)
- c. Denhamia celastroides (o-)
- c. Orites excelsa (vo).
- Coprosma erembaoides (vo-o).
- Cryptocarya rigida (o).
- c. Endicandra sieberi (vo).
- Pittosporum revolutum (vo-a).
- c. Syzygium glandulosum (vo-o).
- Tasmannia insipida? (vo-a).
- Rapanea howittiana (vo).
- Pittosporum undulatum (vo-a).
- Elaeocarpus reticulatus (vo).
- Grewia monostylis (vo).
- Eupomatia laurina (vo).

- Cyathochaeta australis (o).
- Stichonia flabellata (o-c) outer edge.
- Lomandra longifolia (o-c).
- Pennis umbrosa (o-c)
- Dicksonia antarctica (o-c).
- Lapidosperma laterale (vo-c) edge...
- Microsorum scandens (vo).
- Histiopteris idesia (a).
- Blechnum nudum (vo).
- Doodia aspera (vo-o).
- Streptothamnus beckeri (vo-o)
- Cicinus hypoglauca (o)
- Cicinus antarcticus (o).
- Pandanus pandanus (vo-o).
- Cephaelis cephalotrichus (o).
- Piptocarpha moorei (vo)
- Markea jamaicensis (vo).
- Passerina straminea (vo).
- Palmeria scandens (o-vo).
- Davallia superba (o-c) non.
- Pellaea falcata var. falcata (o-vo).

Robert Kuyner 4/98.

Brother S.F. Cneph. 8/96 Creek Boundary.... Rocky area to old dam

# Rocky Area - Riparian Becktonia area.

upstems:

- C. Eucalyptus obliqua (o)
- C. E. brunea (o-vo)
- C. E. campanulata (otro)
- C. E. saligna (o-vo)
- C. E. microcarpa (n)

## Riparian sampl:

- c/c Banksia integrifolia (vo-c)
- c/sc. Allocasuarina teretifolia (o-c)
- Notalea longifolia (c)
- sc/c Bacthousia myrtifolia (o-c-vc)
- Pomadouris lanigera (o)
- cc. Acnura sintii (o)
- c/c Callioma serratifolia (o-vo)
- Lencopogon lanceolatus (o-c)
- Olearia elatius (Hedysarum elatum) (o-c)
- cc Cryptocarya rigida (o-c)
- sc. Elaeocarpus reticulatus (vo-o)
- sc. Rapanea variabilis (vo)
- sc. Derhamia retastroides
- Senecio amygdalifolia (vo)
- Plectranthus pervifolia (c) on rocks etc.
- Lomatia siliifolia (vo-o)
- Hibbertia aspera (o)
- sc. Callistemon salignus (vo)
- sc. Accacia rallofloribunda (vo) narrow leaf - specimen...
- cc. Bursaria spinosa (vo)
- ck. Endiandra sieberi (vo)
- Coprosma quadrifida (vo)
- Acaena nova-zeelandica (vo)
- Ellobetena (vo)
- Viola hederacea (vo)
- Pratia purpureoerens (vo)

Poa sieberiana (vo-r)

Lomandra longifolia (c-vc)

Blechnum nudum (o-c)

Doodia aspera (vo-c)

Blechnum cartilagineum (o)

Gahnia melanocarpa (o)

G. sieberiana (vo-o)

Microcladia sp. stypoides (vo)

Dianella caerulea (vo-o)

Marsdenia rostrata (c)

Hibbertia scandens (c)

Smilax australis (o)

Cissus hypoglauca (vo-o)

Cissus antarctica (vo)

Aphanopetalum venustum (vo-o)

Calceolaria dubia (c-vc)

Dichroa antarctica (vo-o)

Cyathochaeta australis (o)

For/specimen: Lygodium microphyllum (c)

step 1: Dictyonia brownii (vo-o)

Dendrobium pugioniforme (vo-o)

Pyrrosia sp. (o-c)

Integrifolia Almy sp. -

Entolasia stricta (o-vo)

Ft. 53 ± 5.3 (rainforest) upshore...

Bror SF Cpt. 96. mostly disturbed / logging...  
"SNVF - dieback"

4/98. Rod + Koryman

- c. *Lepidostemon curvatus* (c-o)
- c. *Eucalyptus saligna* (o- )
- c. E. *microcarpa* (vo- )
- c. E. *acuminoides* (a- 1)
- etc....
- sc. *Acacia melanoxylon* (2-o)
- c/c *Callisthene paniculata* (o- )
- sc. *Synonum glandulosum* (o).
- sc. *Acacia irrorata* var *irrorata* (o-c)
- sc. *Neolitsea dealbata* (o-vo)
- Cardyline petiolata* (o-c).
- Cryptocarya rigida* (o-c)
- sc *Hymenoparum flavum* (o-vo).
- sc. *Rhodanthe rubescens* (o-vo).
- sc. *Notolaea longifolia* (o).
- sc. *Hedycarya angustifolia* (o-vo).
- c/c *Schizomeria ovata* (o).
- sc *Daylindia sp. A.* (o-vo).
- c/c *Doryphora saxifraga* (o- )
- sc. *Chorizanthe australis* (vo- )
- Diospyros australis* (o).
- c/c *Cryptocarya microcarpa* (vo-o).
- sc *Physcia elegans* (vo-a).
- sc. P. *sambucifolia* subsp. ? (n) specimen.... (2n-RF R47).
- Cynaglossum latifolium* (vo-c)
- Acaena novae-zelandiae* (o-vo).
- Ozothamnus diosmifolius* (o).
- Solanum aviculare* (vo).
- sc. *Cladodendron tomentosum* (vo-o).
- sc. *Aristida australis* (2vo).
- c/c *Acacia smithii* (o-vo).
- c/c *Ehretia acuminata* (a-vo).
- Pittosporum revolutum* (vo-o).
- sc. *Acranychia oblongifolia* (o- )
- downshore (ins into riparian RF altitudes) ..... see
- sc. *Eupomatia laurina* (o-vo).
- c. *Citrarella moorei* (vo- )
- sc. *Elaeodendron (Carrie) australis* (o).
- sc *Pennantia cunninghamii* (vo-vo).
- sc *Allargium villatum* var. (o-vo).
- sc *Baccharis inaphylla* (vo- ).
- ch. r. ....

- Cissia hypoglauca* (o-c)
- Calceolaria subspicata* (vo-o).
- Cephalanthus apicalatus* (vo-o)
- Streptothamnus beckeri* (o).
- Zehneria cunninghamii* (vo-o).
- Hibbertia scandens* (o).
- Cissia antarctica* (o-c).
- Mavedonia ruscifolia* (o).
- Rubus saxifolius* (vo).
- Maridia jasminoides* (o).
- Rubus hillii* (o) ✓
- Palmaria scandens* (o).
- Getanoplerium cyanum* (vo-o).
- Adiantum farosum* (o)
- Pteris esculentum* (vo-c)
- Calceolaria dubia* (vo-c).
- Doodia aspera* (o-c).
- Lantana camara* (vo-c).
- Hymenophyllum* sp. (o)
- Gahnia melanocephala* (o).
- Lomandra* sp. (o).

some fern (epiphyte) -

- Dendrobium pygmaeum* (vo-o)
- Microsorum scandens* (o).
- Gymnostachyum anceps* (o-vo).
- Clematis aristata* (?) (o-vo).
- Piptocalyx moorei* (vo-o).
- Pyramis (rugosa)* (o-vo).
- P. *confusa* (o).
- Cyathea australis* (o-c).
- Dicksonia spontanea* (vo)
- Asplenium australasicum* (vo).
- c. *Sloanea woollii* (vo-o).
- sc. *Polyosma cunninghamii* (vo- )
- sc. *Tasmannia laticarpa* (o-o).
- \* sc. *Cryptocarya foveolata* (a) - stamens long form!
- c/c *Cryptocarya glauca* (a- ) - stamens long form!
- Physcia sambucifolia* subsp. C (a)
- Dendrobium acuminatum* (o-vo).
- specimen lists this report....
- Solanum* ~~puber~~ *capricornis* ? (a).
- Urtica vicia* (a-o).
- Dioscorea transversa* (vo-o).
- Cayratia* ~~sp.~~ *indica* (vo).
- Maclura cochinchinensis* (vo).
- no-x? *Diplazium patens* (vo).
- Sia....

Cmpt. 96/90

Brooks SF.

4/98

Robert Koenig

Riparian Ravine Fr 3 ± Eucalyptus spp.  
[s.o. habitat ...]

C. Eucalyptus saligna (vo)

C. E. viminaria (a-o).

Fr. 163 adjacent ..... E. obliqua (vo)

Riparian sample - : E. brunnescens (vo)

E. amplifolia (a-vo).

c/c Syngonium auriculata (vo).

sc. Strobilium brunneum (vo-)

sc/c Allocasuarina torulosa (vo-o)

sc. Bacthousia myrtifolia (o-c)

c/c. Acacia smithii (o)

c/sc Callitriche paniculata (o-c).

Cryptocarya rigida (vo-o).

sc Callitriche serratifolia (o-c).

sc Acacia irrorata var. irrorata (vo-o-c).

c/c Doryphora saxifraga (c).

sc Elaeocarpus reticulatus (o).

sc/c Persea carmichaelii (vo-o).

c/c Cinchonum oliverii (o).

sc. Tasmanian isipida (o)

sc. Notela longifolia (vo-o).

sc. Denhamia calceolaria (o)

sc/c Cryptocarya micrantha (a-)

sc/c Endiandra sieberi (a-).

c/c Schizomeria ovata (o-).

sc/c Symplocos glandulosa (o).

c/c Endiandra bicolor (vo-o).

Rapanea howittiana (o), specimen...

Viola hederacea (o).

sc. Guilfoylea monostylis (a).

sc. Rapanea variabilis (o-vo).

sc. Bursaria spinosa (vo).

sc/c Callitriche saligna (a), specimen (ceterum?)

sc/c Banksia sp. aminghamii (a).

sc/c Acacia sp. aff. longispina (o-vo).

sc. Diospyros australis (o-vo).

sc. Hedycarya argentea (a).

Buechia sp. (a-vo).

c/c. Orites excelsa (vo-o).

c/c Ceratopetalum apetalum (a-o).

sc/c Daphnandra sp. A. (vo-a).

Pandanus pandanus (vo).

Cephalanthus cephalanthus (vo-o).

Lomandra longifolia (o-vc) creek.

Carex sp. (o-c) creek.

Oplismenus acuminatus (o).

Lepidosperma sp.

Gahnia melaleuca (vo).

Aphanopetalum resinatum (o-c)

Streptocarpus beckeri (vo-o)

Loxocarpus laevis (o-vo).

Cissia antarctica (o-c).

Cissia hypoglauca (o-c).

Hibbertia scandens (o).

Geitonopetalum cynarum (vo).

Piptocarpha moorei (vo)

Blechnum cartilagineum (o-vc)

Blechnum nudum (vo-o)

Cyathea australis (o)

Dichroa antarctica (a)

Gymnostachyum anceps (o).

Calochortus dubius (vo-c).

Lastraea decomposita (vo-o).

Pellaea falcata var. falcata (vo-o)

Doodia aspera (o-c).

Adiantum sp. formosum (o-vo).

Paris umbrosa (vo-o).

ant: Schoenus macrostachyus ...

Sarcocolla plicata (vo)

Stichurus lobatus (vo-o) gully...

Hymenophyllum marginatum (o-vo)

Polyphleum verum? (c)

Aneides sp.

(o) creek / road ...

Lobelia sp.

(a).

Cardinia petiolaris (vo).

Cynoglossum latifolius (a).

Richardia sp. (vo).

Ellatoloma (a-vo) ...

Cypripedium tetraphyllum (vo).

Papilion tetraphyllum (vo).

Platycodon biflorus (vo-o).

sc/c Ficus coronata (vo-o).

Coprosma quadrifida (vo-c)

c/c Dendroica excelsa (a)

Ripogonum (brevifolium) (vo-a).

Tetrastix nitens (vo-a)

Sarcocolla hirsuta (o).

Brother SF.

NERST Fr. 163  
Fr. 161, 169,  
Fr. 151:

- C. *Eucalyptus campanulata* (vc)  
C. E. *keapiana* (c-o)  
C. E. *validata* (vo-n)  
C. E. *obliqua* (vo)  
C. E. *micrantha* (R-vo)  
C. E. *brunnea* (R-vo). *only/low shr.*  
C. E. *saligna* (R-vo).  
Sc *Allocasuarina littoralis* (R-vo-o).  
sc *Acacia obtusifolia* (vo-)  
sc *Allocasuarina torulosa* (R-vo).  
*Oxylobium ilicifolium* (vo-c)  
*Ranunculus lappaceus* (vo)  
C. *Eucalyptus radiata* (vo-r).  
*Leucopogon lanceolatus* (o-c)  
*Acacia* sp. aff. *laevis* (vo-). *check specimen...*  
*Acacia irrorata* var. *irrorata* (vo-c)  
*Trochocarpa laurina* (R-o)  
*Psychotria lanicoides* (R-o)  
*Plectranthus parvifolius* (o-c)  
*Lomelia silaifolia* (o-c)  
*Manterus bilocularis* (vo-o)  
*Indigofera australis* (vo-)  
*Goodia latifolia* (vo-vc)  
*Gesnerium* ~~*gambelii*~~ *potentilloides* (o-c)  
*Solanum densivestitum* (o-c)  
*Pratia purpurea* (o-c)  
*Thylandtia* sp. *gunnii* (vo) *some shr.*  
*Viola betanifolia* (o)  
*Gonocarpus tenebrosus* (o)  
*Oxalis* sp.  
*Pinelaea linifolia* ssp. *linifolia* (vo)  
*Solanum opacum* (vo-a)  
*Galium binifolium* (vo-o).  
*Hibbertia riparia* (vo).  
*Baronia microphylla* (vo-o).  
*Hakea eriotha* (vo-o).  
*Banksia integrifolia* (o-vo).  
*Banksia cunninghamii* (H.A.)? (vo)  
*Pumila umbellata* (vo-o).

Cmpt. 89/10/16.

Robert Karym

- Poa* (*latilludic*? *granulata*?)  
*var. latiludic* (vc)  
*sieberiana* or *sieberiana*  
*Imperata cylindrica* (c-o)  
*Dianella caerulea* (o)  
*Thunbergia australis* (vo-)  
*Entolasia stricta* (o-vc).  
*Lepidosperma latiale* (vo-o)  
*Lomandra longifolia* (R-vo)  
*Billerbeckia procumbens* (vo).  
*Pennisetum straminea* (vo).  
*Rubus parvifolius* (o).  
*Glyceria clandestina* (vo-o)  
*Hibbertia scandens* (o)  
*Dermadium* sp. *venense* (o)  
*Hibbertia aspera* (o).  
*Harlebezia violacea* (o).  
*Blechnum nudum* (R-o) *crab.*  
*Blechnum castibergenum* (R-o)  
*Pteris tremula* (R-vo)  
*Pteris esculentum* (vo-c)  
*Calochortus dubius* (vo-vc)  
*Lindaea* sp. *linearis*? (R).  
*Gleichenia* sp. *diarpa* (R) *some*.  
*Sticheria flabellata* (R-vo)  
*Xanthorrhoea glauca* (R-o)  
*Argemone pendulum* or *pendulum* (vo-c).  
*Dicksonia antarctica* (vo-c).  
*Cyathus australis* (vo-o)  
*Cymbopogon refractus* (vo)  
*Echinopogon* sp. (o-)  
*Pterophyte canescens* (vo-o).  
*Pomadouria* sp. *lanigera* (vo).  
*Pultanea schua* (vo)  
*Oxthymus diosiphilus* (vo-o).  
*Elaeocarpus reticulatus* (vo).  
*Commispermia* sp. *ancinum* (vo-o).  
*Cryptocarya rigida* (R-o).  
*Helictes* (*Olearia*) *eludica* (vo).  
*Amperea xiphoclada* (vo-)  
*Brachycome nova-anglia* (R-vo)  
*Callitriche citrinus* (o) *some shr. only?*  
*Dampiera stricta* (vo)  
*Epacris microphylla* var. *micro* (R-)  
*Glyceria* sp. (vo-o)  
*Goodenia bellidifolia* (vo-)  
*Phyllanthus monostachyus* (vo-)

- Hypericum* sp. *gramineum* (vo-o).  
*Lagerflera stipitata* (R-vo).  
*Microlasia stipoides* var. (R  
*Manotoca scaparia* (vo-o).  
*Persoonia oleoides* (vo-o).  
*Plantago debilis* (R- )  
*Opuntia* sp. ( )  
*Physcia sambucifolia* (vo-o) subsp. A.  
*Solanum phlogothum* (vo- )  
*Acacia nova-zeelandica* (vo-a)  
*Callitrema (pallidum / citrinum?)* (R) swampy area...  
*Leptoparmium polygalifolia* (vo-a)  
*Senecio amygdalifolia* (vo).  
*Senecio* sp. *minimum* (vo)  
*Bossiaea* sp. (a).  
*Caryza albida* ( )  
*Gonocarpus humilis* (vol  
 G. *tetragynus* ( )  
*Hybanthus emersopomus* var. *stellatoides* (vo-o).  
*Hydrocotyle granifolia* (R-o) creek bed...  
*Platycodon ericoides* (R-vo).  
*Prostanthera incisa* (R-vo).  
*Senecio* sp. (R).  
*Sigebekia orientalis* (vo- )  
*Zieria smithii* (R) bushy...  
*Lagerflera* sp. ? (R-vo) near creek...  
*Microlasia stipoides* (R-vo) low shrub / aldy. LF.  
*Opuntia hispida* (vo-o) creek area...  
*Gonocarpus asaphisum* (R-vo) creek. creek area... low shrub...  
*Jackmanii scoparia* (a).  
*Acacia ulicifolia* (vo-a).  
 \* *Dodonaea mezerioides* (R-vo)

- Juncus* sp. (vo+a)  
*Optunia intercellis* (a).  
*Lepidosperma filiformis* (vo).  
*Kennedia rubicunda* (vo-o).  
*Smilax elaeagnifolia* (vo)  
*Smilax australis* (vo-o).  
*Liriodendron microphyllum* (R) shade...  
*Eucalyptus latifolia* (vo-o).

Includes floristics for Fr. 163, 169, 161, 152, 122, #, #

E. cameroni  
 E. radialis  
 E.

Grass understory -  
 Fern understory -  
 Shrub / grass understory - } all above ....



Blottnar SF. Arch. 89/90/96.

April/May 1998.

Robert Koopman

Superb Lyre-bird

Satin Bower-bird

Lewins Honeyeater.

Chang's.

Pied Curlew

White throated tree-creeper

Glaucous Black Cockatoo

Yellow-tailed Black Cockatoo

Mtn. Lark

Grey Shrike Thrush.

Pale yellow Robin (RF)

Yellow Robin

Stubble Quail

White breast Sand Wren.

Brown cuckoo-dove

Fairy bird

Laughing kookaburra

Eastern Grey Kangaroo

Wallaroo

Whip-tail Wallaby

Swamp Wallaby

Greater Glider

Sugar Glider

Mtn. Bobwhite

Bandicoot

Rufous Bettong

Brush-tail possum.

Boobie Owl

Powerful Owl

Masked Owl

Sooty Owl

Refer to lists from previous study Broder Arch. 94/95. 12/97.



# SCATS - NORTHERN RIVERS REGION

|   |           |   |                                |  |         |       |
|---|-----------|---|--------------------------------|--|---------|-------|
| STATE FOREST <u>Brooker</u>   |           | M.A. <u>Casino</u>                                  |                                | COMPT. <u>90</u>   |         |       |
| OBSERVER(S) <u>N. Douglas &amp; N. Harvey</u>                             |           | DATE <u>19.3.98</u>                                 |                                | REGION CODE <u>461</u>   |         |       |
| SURVEY NAME <u>Pre-harvest</u>  |           | TRANSECT LENGTH <u>2 km</u>                         |                                |  |         |       |
| DETECTION METHOD(S) <u>1 Km road transect per 200 ha net logging area</u> |           |   |                                |  |         |       |
| BROAD HABITAT TYPE  |           |   |                                |  |         |       |
| Rainforest  |           | Sclerophyll   |                                | Woodland   |         |       |
| <input type="checkbox"/> Subtropical                                      |           | <input type="checkbox"/> Wet Sclerophyll            |                                | <input type="checkbox"/> Shrub Woodland                            |         |       |
| <input type="checkbox"/> Dry  |           | <input checked="" type="checkbox"/> Dry Sclerophyll |                                | <input type="checkbox"/> Heath Woodland                            |         |       |
| <input type="checkbox"/> Temperate  |           | <input type="checkbox"/> Swamp Sclerophyll          |                                | <input type="checkbox"/> Tall Woodland                             |         |       |
| FOREST TYPE NUMBER(S) <u>163</u>  |           |   |                                |  |         |       |
| AMG Start Easting <u>4.12.075</u>   |           | Finish Easting <u>4.13.145</u>                      |                                |  |         |       |
| COORDINATES Northing <u>67.02.500</u>                                     |           | Northing <u>67.01.300</u>                           |                                |  |         |       |
| Location Description <u>Land End Road.</u>                                |           |   |                                |  |         |       |
| Time Start  |           | Time Finish   |                                | Total Travel Time  |         |       |
|   |           |   |                                | Species Targeted <u>all</u>  |         |       |
| SAMPLE DETAILS  |           |   |                                |  |         |       |
| DISTANCE  | SAMPLE ID | SPECIES   | OBS TYPE<br>scat or<br>in scat | PROBABILITY STATUS<br>1 = definite<br>2 = probable<br>3 = possible | ANALYST | NOTES |
|   |           | <u>Nil.</u>   |                                |  |         |       |
|   |           |   |                                |  |         |       |
|   |           |   |                                |  |         |       |
|   |           |   |                                |  |         |       |
|   |           |   |                                |  |         |       |
|   |           |   |                                |  |         |       |
|   |           |   |                                |  |         |       |
|   |           |   |                                |  |         |       |
|   |           |   |                                |  |         |       |
|   |           |   |                                |  |         |       |
|   |           |   |                                |  |         |       |
|   |           |   |                                |  |         |       |
|   |           |   |                                |  |         |       |
|   |           |   |                                |  |         |       |
| SKETCH MAP (INCLUDE DRAINAGE, ROADS AND TRACKS, DISTANCES, BEARINGS)      |           |   |                                |  |         |       |
| NORTH<br>[TOP]  |           |   |                                |  |         |       |





**SCATS**



PAGE 1 of 1.

[illegible]

[illegible]



# CALL PLAYBACK - NORTHERN RIVERS REGION

RK3

| STATE FOREST <b>Bromhal</b>  |          | M.A. <b>GLAN INNER</b>  |               | COMPT. <b>96</b>   |   |   |
|--|----------|---|---------------|--|---|---|
| OBSERVER(S) <b>Robert Kooyman</b>  |          | DATE FROM <b>28/4/98</b>  |               | REGION <b>Nth. Rivers</b>  |   |   |
| SURVEY NAME <b>Cons. Swv. Prot.</b>  |          | DATE TO   |               | CODE   |   |   |
| DETECTION METHOD(S)<br><b>Playback calls</b><br><b>Listan</b>  |          | Part of Spotlight Transect? <b>YES/NO</b> specify...                  |               |  |   |   |
| <input checked="" type="checkbox"/> arboreal mammals   |          | <input type="checkbox"/> diurnal birds                                |               | <input type="checkbox"/> other   |   |   |
| <input checked="" type="checkbox"/> nocturnal birds  |          |   |               |  |   |   |
| Species Targeted <b>P.O., S.O., M.O., YBG</b>  |          | Calls Played <b>M.O., S.O., YBG</b>                                   |               |  |   |   |
| CENSUS 1   |          | Start Time: <b>6:00 pm</b>  |               | Finish Time: <b>8:00 pm</b>  |   |   |
| SITE(S) - AMG Site.....  |          | Easting <b>4 156 50</b>   |               | Site.....  |   |   |
| COORDINATES Zone   |          | Northing <b>66 018 50</b>   |               | Zone   |   |   |
| BROAD HABITAT TYPE (1 only)  |          | Rainforest  |               | Sclerophyll  |   |   |
|  |          | Subtropical <input type="checkbox"/>                                  |               | Wet Sclerophyll <input checked="" type="checkbox"/>                        |   |   |
|  |          | Dry <input type="checkbox"/>  |               | Dry Sclerophyll <input type="checkbox"/>                                   |   |   |
|  |          | Temperate <input type="checkbox"/>                                    |               | Swamp Sclerophyll <input type="checkbox"/>                                 |   |   |
|  |          |   |               | Woodland   |   |   |
|  |          |   |               | Shrub Woodland <input type="checkbox"/>                                    |   |   |
|  |          |   |               | Heath Woodland <input type="checkbox"/>                                    |   |   |
|  |          |   |               | Tall Woodland <input type="checkbox"/>                                     |   |   |
| FOREST TYPE NUMBER(S) <b>Ft. 53, 47,</b>   |          |   |               |  |   |   |
| LOCATION DESCRIPTION<br><b>N.E. end of Cmp. 96. Ridge track to point where track turns east / S.E. 200m.</b> |          |   |               |  |   |   |
| WEATHER <b>clear</b>   |          | Temperature <b>+15°C</b>  |               | Relative Humidity <b>40%</b>   |   |   |
| Wind (1 only for all)  |          | <input checked="" type="checkbox"/> calm                              |               | <input type="checkbox"/> moderate - moves branches                         |   |   |
|  |          | <input type="checkbox"/> light - leaves rustle                        |               | <input type="checkbox"/> strong - impedes progress                         |   |   |
| Rain   |          | <input type="checkbox"/> rain during survey                           |               | <input checked="" type="checkbox"/> no evidence of rain in the last 24 hrs |   |   |
|  |          | <input type="checkbox"/> evidence of rain in last 24 hrs              |               |  |   |   |
| Night light  |          | <input checked="" type="checkbox"/> very dark - no moon+cloud         |               | <input type="checkbox"/> detail seen - moon and clear sky                  |   |   |
|  |          | <input type="checkbox"/> dark - quarter moon or moon with heavy cloud |               | <input type="checkbox"/> bright - half moon or more and no cloud           |   |   |
| OBSERVATION DETAILS  |          |   |               |  |   |   |
| DATE   | SITE NO. | SPECIES   | OBS. TYPE     | COUNT  | RESPONSE (ESTIMATE)<br>DISTANCE BEARING | NOTES (appearance, sex, note if count an estimate, AMG of S1 or S2) |
| 28/4   | RK3      | SOOTY OWL   | LISTAN. HEARD | 1  | 350 (+/-) 100 SSE                       | trilling calls after initial bomb - drop. unprompted at dusk.       |
|  |          |   |               |  | (+/-)                                   |   |
|  |          |   |               |  | (+/-)                                   |   |
|  |          |   |               |  | (+/-)                                   |   |
|  |          |   |               |  | (+/-)                                   |   |
|  |          |   |               |  | (+/-)                                   |   |
|  |          |   |               |  | (+/-)                                   |   |
|  |          |   |               |  | (+/-)                                   |   |
|  |          |   |               |  | (+/-)                                   |   |
|  |          |   |               |  | (+/-)                                   |   |
|  |          |   |               |  | (+/-)                                   |   |
|  |          |   |               |  | (+/-)                                   |   |

PAGE \_\_\_\_ of \_\_\_\_ SKETCH MAP OVERLEAF? YES / NO

CALL PLAYBACK





# CALL PLAYBACK - NORTHERN RIVERS REGION

Rx 4

| STATE FOREST <b>BROTHAR</b>                                       |          | M.A. <b>GLAN INNIS</b>   |              | COMPT. <b>89 / 90 / 96</b>   |   |   |
|---|----------|--|--------------|--|---|---|
| OBSERVER(S) <b>ROBERT KOOYMAN</b>                                 |          | DATE FROM <b>29/4/98</b>   |              | REGION CODE <b>Nth. Rivers.</b>  |   |   |
| SURVEY NAME <b>Cons. Surv. Prot.</b>                              |          | Part of Spotlight Transect? <b>YES/NO</b> specify...   |              |  |   |   |
| DETECTION METHOD(S)   |          | <input checked="" type="checkbox"/> arboreal mammals <input type="checkbox"/> diurnal birds <input type="checkbox"/> other       |              |  |   |   |
|   |          | <input checked="" type="checkbox"/> nocturnal birds  |              |  |   |   |
| Species Targeted <b>P.O., M.O., S.O., YBG.</b>                    |          | Calls Played <b>P.O., M.O., S.O., YBG.</b>   |              |  |   |   |
| CENSUS 1  |          | Start Time: <b>6:30pm.</b>   |              | Finish Time: <b>10:00pm.</b>   |   |   |
| SITE(S) - AMG Site.....   |          | Easting <b>4 14 250</b>  |              | Site.....  |   |   |
| COORDINATES Zone  |          | Northing <b>66 02 450</b>  |              | Zone   |   |   |
| BROAD HABITAT TYPE (1 only)                                       |          | Rainforest <input type="checkbox"/> Sclerophyll <input checked="" type="checkbox"/> Woodland                                     |              |  |   |   |
|   |          | Subtropical <input type="checkbox"/> Wet Sclerophyll <input checked="" type="checkbox"/> Shrub Woodland <input type="checkbox"/> |              |  |   |   |
|   |          | Dry <input type="checkbox"/> Dry Sclerophyll <input type="checkbox"/> Heath Woodland <input type="checkbox"/>                    |              |  |   |   |
|   |          | Temperate <input type="checkbox"/> Swamp Sclerophyll <input type="checkbox"/> Tall Woodland <input type="checkbox"/>             |              |  |   |   |
| FOREST TYPE NUMBER(S)   |          | <b>Ft. 163, 152, 169.</b>  |              |  |   |   |
| LOCATION DESCRIPTION<br><b>S.W. corner of Cmp. 89. near creek</b> |          |  |              |  |   |   |
| WEATHER <b>fine,</b>  |          | Temperature <b>+15°C</b>   |              | Relative Humidity <b>50%</b>   |   |   |
| Wind (1 only for all)   |          | <input type="checkbox"/> calm  |              | <input type="checkbox"/> moderate - moves branches                         |   |   |
|   |          | <input checked="" type="checkbox"/> light - leaves rustle  |              | <input type="checkbox"/> strong - impedes progress                         |   |   |
| Rain  |          | <input type="checkbox"/> rain during survey  |              | <input checked="" type="checkbox"/> no evidence of rain in the last 24 hrs |   |   |
|   |          | <input type="checkbox"/> evidence of rain in last 24 hrs   |              |  |   |   |
| Night light   |          | <input checked="" type="checkbox"/> very dark - no moon+cloud  |              | <input type="checkbox"/> detail seen - moon and clear sky                  |   |   |
|   |          | <input type="checkbox"/> dark - quarter moon or moon with heavy cloud  |              | <input type="checkbox"/> bright - half moon or more and no cloud           |   |   |
| OBSERVATION DETAILS   |          |  |              |  |   |   |
| DATE  | SITE NO. | SPECIES  | OBS. TYPE    | COUNT  | RESPONSE (ESTIMATE)<br>DISTANCE BEARING | NOTES (appearance, sex, note if count an estimate, AMG of S1 or S2) |
| 29/4  | Rx4      | Powerful Owl   | LISTEN heard | 1  | 400 (+) 100 SW                          |   |
| 29/4  | Rx4      | Masked Owl   | LISTEN heard | 1  | 350 (+) 100 SE                          |   |
|   |          |  |              |  | (+)                                     |   |
|   |          |  |              |  | (+)                                     |   |
|   |          |  |              |  | (+)                                     |   |
|   |          |  |              |  | (+)                                     |   |
|   |          |  |              |  | (+)                                     |   |
|   |          |  |              |  | (+)                                     |   |
|   |          |  |              |  | (+)                                     |   |
|   |          |  |              |  | (+)                                     |   |
|   |          |  |              |  | (+)                                     |   |

PAGE \_\_\_\_ of \_\_\_\_ . SKETCH MAP OVERLEAF? YES / NO

CALL PLAYBACK



# CALL PLAYBACK - NORTHERN RIVERS REGION

| STATE FOREST <b>BROTHER ST</b>  |            | M.A. <b>John Dwyer Glen Ellis</b>  | COMPT. <b>90</b>  |       |   |   |
|---|------------|--|---|-------|---|---|
| OBSERVER(S) <b>K HARVEY / R HARKLOTS</b>  |            | DATE FROM <b>19.3</b>  | REGION CODE <b>461</b>  |       |   |   |
| SURVEY NAME <b>PRE-HARVEST</b>  |            | DATE TO <b>21.4</b>  | Part of Spotlight Transect? <input checked="" type="checkbox"/> YES / NO specify... |       |   |   |
| DETECTION METHOD(S)<br><input checked="" type="checkbox"/> arboreal mammals<br><input checked="" type="checkbox"/> nocturnal birds                      |            | <input type="checkbox"/> diurnal birds   | <input type="checkbox"/> other  |       |   |   |
| Species Targeted  |            |  |   |       |   |   |
| SITE(S) - AMG Site...1... Easting <b>412 950</b>  |            | Calls Played <b>PO, SO, MO, K, YBG, SQG</b>  |   |       |   |   |
| COORDINATES Zone Northing <b>67 02 850</b>  |            | Notes.....   |   |       |   |   |
| BROAD HABITAT TYPE (1 only)<br>Rainforest<br>Subtropical <input type="checkbox"/><br>Dry <input type="checkbox"/><br>Temperate <input type="checkbox"/> |            | Sclerophyll<br>Wet Sclerophyll <input type="checkbox"/><br>Dry Sclerophyll <input checked="" type="checkbox"/><br>Swamp Sclerophyll <input type="checkbox"/> |   |       |   |   |
| FOREST TYPE NUMBER(S) <b>163</b>  |            | Woodland<br>Shrub Woodland <input type="checkbox"/><br>Heath Woodland <input type="checkbox"/><br>Tall Woodland <input type="checkbox"/>                     |   |       |   |   |
| LOCATION DESCRIPTION <b>1 km along Rd "90/4".... off Hewitts Peak Rd.</b>   |            |  |   |       |   |   |
| CENSUS 1  |            |  |   |       |   |   |
| Start Time: <b>9.30 PM</b>  |            | Finish Time: <b>10.30 PM</b>   | Total Travel Time <b>1 hr</b>   |       |   |   |
| WEATHER Temperature <b>18°C</b>   |            | Relative Humidity <b>—</b>   | Time <b>8</b> <b>28</b> / pm  |       |   |   |
| Wind (1 only for all) <input type="checkbox"/> calm   |            | <input checked="" type="checkbox"/> moderate - moves branches  |   |       |   |   |
| <input type="checkbox"/> light - leaves rustle  |            | <input type="checkbox"/> strong - impedes progress   |   |       |   |   |
| Rain <input type="checkbox"/> rain during survey  |            | <input type="checkbox"/> no evidence of rain in the last 24 hrs  |   |       |   |   |
| <input checked="" type="checkbox"/> evidence of rain in last 24 hrs   |            |  |   |       |   |   |
| Night light <input type="checkbox"/> very dark - no moon+cloud  |            | <input type="checkbox"/> detail seen - moon and clear sky  |   |       |   |   |
| <input checked="" type="checkbox"/> dark - quarter moon or moon with heavy cloud  |            | <input type="checkbox"/> bright - half moon or more and no cloud   |   |       |   |   |
| CENSUS 2  |            |  |   |       |   |   |
| Start Time: <b>8.00 PM</b>  |            | Finish Time: <b>9.05 PM</b>  | Total Travel Time <b>1 hr 5 mins</b>  |       |   |   |
| WEATHER Temperature <b>16°C</b>   |            | Relative Humidity <b>90</b>  | Time <b>7.15</b> <b>28</b> / pm   |       |   |   |
| Wind (1 only for all) <input checked="" type="checkbox"/> calm  |            | <input type="checkbox"/> moderate - moves branches   |   |       |   |   |
| <input type="checkbox"/> light - leaves rustle  |            | <input type="checkbox"/> strong - impedes progress   |   |       |   |   |
| Rain <input checked="" type="checkbox"/> rain during survey   |            | <input type="checkbox"/> no evidence of rain in the last 24 hrs  |   |       |   |   |
| <input type="checkbox"/> evidence of rain in last 24 hrs  |            |  |   |       |   |   |
| Night light <input checked="" type="checkbox"/> very dark - no moon+cloud   |            | <input type="checkbox"/> detail seen - moon and clear sky  |   |       |   |   |
| <input type="checkbox"/> dark - quarter moon or moon with heavy cloud   |            | <input type="checkbox"/> bright - half moon or more and no cloud   |   |       |   |   |
| OBSERVATION DETAILS   |            |  |   |       |   |   |
| DATE  | CENSUS NO. | SPECIES  | OBS. TYPE   | COUNT | RESPONSE (ESTIMATE)<br>DISTANCE BEARING | NOTES (appearance, sex, note if count an estimate, AMG of S1 or S2) |
| 19.3  | 1          | NO RESPONSE  |   |       | (+/-)                                   |   |
|   |            |  |   |       | (+/-)                                   |   |
| 21.4  | 2          | NO RESPONSE  |   |       | (+/-)                                   |   |
|   |            |  |   |       | (+/-)                                   |   |
|   |            |  |   |       | (+/-)                                   |   |
|   |            |  |   |       | (+/-)                                   |   |
|   |            |  |   |       | (+/-)                                   |   |
|   |            |  |   |       | (+/-)                                   |   |
|   |            |  |   |       | (+/-)                                   |   |



# CALL PLAYBACK - NORTHERN RIVERS REGION

| STATE FOREST   | Brother SF   |   | M.A. <del>John</del> <sup>Robertson</sup> | COMPT.   | 90                      |  |
|--|--|---|---|--|-------------------------|--|
| OBSERVER(S)  | K Harvey / R Herklots  |   | DATE FROM                                 | 19.3.98  | REGION                  |  |
| SURVEY NAME  | Re-harvest   |   | DATE TO                                   | 21.4.98  | CODE 461                |  |
| DETECTION METHOD(S)  | Part of Spotlight Transect? <input checked="" type="checkbox"/> YES / NO specify...                                      |   |   |  |                         |  |
| <input checked="" type="checkbox"/> arboreal mammals <input type="checkbox"/> diurnal birds <input type="checkbox"/> other |  |   |   |  |                         |  |
| <input checked="" type="checkbox"/> nocturnal birds  |  |   |   |  |                         |  |
| Species Targeted   |  |   |   |  |                         |  |
| SITE(S) - AMG  | Site.. 2   | Easting   | 413600                                    | Calls Played   | PO, SO, MO, K, YBG, SAG |  |
| COORDINATES  | Zone   | Northing  | 6703650                                   | Notes.....   |                         |  |
| BROAD HABITAT TYPE (1 only)  | Rainforest <input type="checkbox"/> Sclerophyll <input type="checkbox"/> Woodland  |   |   |  |                         |  |
|  | Subtropical <input type="checkbox"/> Wet Sclerophyll <input type="checkbox"/> Shrub Woodland <input type="checkbox"/>    |   |   |  |                         |  |
|  | Dry <input type="checkbox"/> Dry Sclerophyll <input checked="" type="checkbox"/> Heath Woodland <input type="checkbox"/> |   |   |  |                         |  |
|  | Temperate <input type="checkbox"/> Swamp Sclerophyll <input type="checkbox"/> Tall Woodland <input type="checkbox"/>     |   |   |  |                         |  |
| FOREST TYPE NUMBER(S)  | (163)  |   |   |  |                         |  |
| LOCATION DESCRIPTION   | 1.8 km along 'Hewitts Peak Rd'   |   |   |  |                         |  |
| CENSUS 1   |  |   |   |  |                         |  |
| Start Time:  |  | 7.45 pm   |   | Finish Time: 9.00 pm   |                         |  |
| WEATHER  |  | Temperature 18°C  |   | Relative Humidity /  |                         |  |
| Wind (1 only for all)  |  | <input checked="" type="checkbox"/> calm                              |   | Time 8 am / pm   |                         |  |
|  |  | <input type="checkbox"/> light - leaves rustle                        |   | <input type="checkbox"/> moderate - moves branches                         |                         |  |
| Rain   |  | <input type="checkbox"/> rain during survey                           |   | <input type="checkbox"/> strong - impedes progress                         |                         |  |
|  |  | <input type="checkbox"/> evidence of rain in last 24 hrs              |   | <input checked="" type="checkbox"/> no evidence of rain in the last 24 hrs |                         |  |
| Night light  |  | <input checked="" type="checkbox"/> very dark - no moon+cloud         |   | <input type="checkbox"/> detail seen - moon and clear sky                  |                         |  |
|  |  | <input type="checkbox"/> dark - quarter moon or moon with heavy cloud |   | <input type="checkbox"/> bright - half moon or more and no cloud           |                         |  |
| CENSUS 2   |  |   |   |  |                         |  |
| Start Time:  |  | 7.00 pm   |   | Finish Time: 7.55 pm   |                         |  |
| WEATHER  |  | Temperature 16°C  |   | Relative Humidity 90   |                         |  |
| Wind (1 only for all)  |  | <input checked="" type="checkbox"/> calm                              |   | Time 7.15 am / pm  |                         |  |
|  |  | <input type="checkbox"/> light - leaves rustle                        |   | <input type="checkbox"/> moderate - moves branches                         |                         |  |
| Rain   |  | <input type="checkbox"/> rain during survey                           |   | <input type="checkbox"/> strong - impedes progress                         |                         |  |
|  |  | <input type="checkbox"/> evidence of rain in last 24 hrs              |   | <input checked="" type="checkbox"/> no evidence of rain in the last 24 hrs |                         |  |
| Night light  |  | <input checked="" type="checkbox"/> very dark - no moon+cloud         |   | <input type="checkbox"/> detail seen - moon and clear sky                  |                         |  |
|  |  | <input type="checkbox"/> dark - quarter moon or moon with heavy cloud |   | <input type="checkbox"/> bright - half moon or more and no cloud           |                         |  |
| OBSERVATION DETAILS  |  |   |   |  |                         |  |
| DATE   | CENSUS   | SPECIES   | OBS.                                      | COUNT  | RESPONSE (ESTIMATE)     | NOTES (appearance, sex, note if count an estimate, AMG of S1 or S2)                      |
|  | NO.  |   | TYPE                                      |  | DISTANCE BEARING        |  |
| 19.3   | 1  | NO RESPONSE   |   |  | (+/-)                   |  |
|  |  |   |   |  | (+/-)                   |  |
| 21.4   | 2  | Powerful owl  | Heard call                                | 1  | 1 km (+/-) 100m         | Heard in listening-time before playbacks began. Did not do a PO playback this 2nd night. |
| 21.4   | 2  | sugar glider  | ' '                                       | 1  | (+/-)                   |  |
|  |  |   |   |  | (+/-)                   |  |
|  |  |   |   |  | (+/-)                   |  |
|  |  |   |   |  | (+/-)                   |  |
|  |  |   |   |  | (+/-)                   |  |
|  |  |   |   |  | (+/-)                   |  |



# CALL PLAYBACK - NORTHERN RIVERS REGION

|  |            |  |           |  |                                      |   |
|--|------------|--|-----------|--|--------------------------------------|---|
| STATE FOREST <u>BROTHUR</u>  |            | M.A. <u>Glen Innis</u>   |           | COMPT. <u>96</u>   |                                      |   |
| OBSERVER(S) <u>RH</u>  |            | DATE FROM <u>2-6-'98</u>   |           | REGION   |                                      |   |
| SURVEY NAME <u>Pre-harvest</u>   |            | DATE TO <u>3-6-'98</u>   |           | CODE <u>461</u>  |                                      |   |
| DETECTION METHOD(S)<br><input checked="" type="checkbox"/> arboreal mammals<br><input checked="" type="checkbox"/> nocturnal birds |            | <input type="checkbox"/> diurnal birds   |           | Part of Spotlight Transect? YES / <del>NO</del> specify... <u>2 other members of team do 3/4 light transect while playback in progress</u> |                                      |   |
| Species Targeted   |            |  |           |  |                                      |   |
| SITE(S) - AMG Site <u>3</u>  |            | Easting <u>413950</u>  |           | Calls Played <u>YBG, SQG</u>   |                                      |   |
| COORDINATES Zone   |            | Northing <u>6701050</u>  |           | Notes..... <u>No owl - calls played due to previous response to these in this survey</u>   |                                      |   |
| BROAD HABITAT TYPE (1 only)  |            | Rainforest   |           | Sclerophyll  |                                      |   |
|  |            | Subtropical <input type="checkbox"/>   |           | Wet Sclerophyll <input type="checkbox"/>   |                                      |   |
|  |            | Dry <input type="checkbox"/>   |           | Dry Sclerophyll <input checked="" type="checkbox"/>  |                                      |   |
|  |            | Temperate <input type="checkbox"/>   |           | Swamp Sclerophyll <input type="checkbox"/>   |                                      |   |
| FOREST TYPE NUMBER(S) <u>163</u>   |            |  |           | Woodland   |                                      |   |
|  |            |  |           | Shrub Woodland <input type="checkbox"/>  |                                      |   |
|  |            |  |           | Heath Woodland <input type="checkbox"/>  |                                      |   |
|  |            |  |           | Tall Woodland <input type="checkbox"/>   |                                      |   |
| LOCATION DESCRIPTION <u>Lands end Rd at junction with Pilot Range Rd.</u>  |            |  |           |  |                                      |   |
| CENSUS 1   |            |  |           |  |                                      |   |
| WEATHER  |            | Start Time: <u>8 pm</u>  |           | Finish Time: <u>8.45 pm</u>  |                                      |   |
|  |            | Temperature <u>12°C</u>  |           | Relative Humidity <u>90%</u>   |                                      |   |
| Wind (1 only for all)  |            | <input type="checkbox"/> calm  |           | Total Travel Time <u>45 mins</u>   |                                      |   |
|  |            | <input checked="" type="checkbox"/> light - leaves rustle                        |           | Time <u>8.25</u> <del>pm</del> <u>am</u>   |                                      |   |
| Rain   |            | <input type="checkbox"/> rain during survey                                      |           | <input type="checkbox"/> moderate - moves branches   |                                      |   |
|  |            | <input type="checkbox"/> evidence of rain in last 24 hrs                         |           | <input type="checkbox"/> strong - impedes progress   |                                      |   |
| Night light  |            | <input type="checkbox"/> very dark - no moon+cloud                               |           | <input checked="" type="checkbox"/> no evidence of rain in the last 24 hrs   |                                      |   |
|  |            | <input checked="" type="checkbox"/> dark - quarter moon or moon with heavy cloud |           | <input type="checkbox"/> detail seen - moon and clear sky  |                                      |   |
|  |            |  |           | <input type="checkbox"/> bright - half moon or more and no cloud   |                                      |   |
| CENSUS 2   |            |  |           |  |                                      |   |
| WEATHER  |            | Start Time: <u>6.10</u>  |           | Finish Time: <u>6.50</u>   |                                      |   |
|  |            | Temperature <u>12°C</u>  |           | Relative Humidity <u>90%</u>   |                                      |   |
| Wind (1 only for all)  |            | <input checked="" type="checkbox"/> calm   |           | Total Travel Time <u>30 min</u>  |                                      |   |
|  |            | <input type="checkbox"/> light - leaves rustle                                   |           | Time <u>6.25</u> <del>pm</del> <u>am</u>   |                                      |   |
| Rain   |            | <input type="checkbox"/> rain during survey                                      |           | <input type="checkbox"/> moderate - moves branches   |                                      |   |
|  |            | <input checked="" type="checkbox"/> evidence of rain in last 24 hrs              |           | <input type="checkbox"/> strong - impedes progress   |                                      |   |
| Night light  |            | <input type="checkbox"/> very dark - no moon+cloud                               |           | <input type="checkbox"/> no evidence of rain in the last 24 hrs  |                                      |   |
|  |            | <input type="checkbox"/> dark - quarter moon or moon with heavy cloud            |           | <input type="checkbox"/> detail seen - moon and clear sky  |                                      |   |
|  |            |  |           | <input checked="" type="checkbox"/> bright - half moon or more and <del>per</del> <u>some</u> cloud  |                                      |   |
| OBSERVATION DETAILS  |            |  |           |  |                                      |   |
| DATE   | CENSUS NO. | SPECIES  | OBS. TYPE | COUNT  | RESPONSE (ESTIMATE) DISTANCE BEARING | NOTES (appearance, sex, note if count an estimate, AMG of S1 or S2) |
| 2-6  | 1          | - No response -  |           |  | (+/-)                                |   |
|  |            |  |           |  | (+/-)                                |   |
| 3/6  | 2          | Sooty Owl  | Heard     | 1  | 100m (+/-) 20m                       |   |
|  |            |  |           |  | (+/-)                                |   |
|  |            |  |           |  | (+/-)                                |   |
|  |            |  |           |  | (+/-)                                |   |
|  |            |  |           |  | (+/-)                                |   |
|  |            |  |           |  | (+/-)                                |   |
|  |            |  |           |  | (+/-)                                |   |

Conducted by R Hudson + N. Harvey. 3/6/98



# CALL PLAYBACK - NORTHERN RIVERS REGION

|  |   |                |           |             |                     |         |   |   |
|--|---|----------------|-----------|-------------|---------------------|---------|---|---|
| STATE FOREST   | BROTHER   |                | M.A.      | Clen Zinner |                     | COMPT.  | 89  |   |
| OBSERVER(S)  | ND RH   |                | DATE FROM | 3.6.98      |                     | REGION  |   |   |
| SURVEY NAME  | Pre-harvest   |                | DATE TO   | 4.6.98      |                     | CODE    | 461   |   |
| DETECTION METHOD(S)  | Part of Spotlight Transect? <input checked="" type="checkbox"/> YES / NO specify...   |                |           |             |                     |         |   |   |
| <input checked="" type="checkbox"/> arboreal mammals <input type="checkbox"/> diurnal birds <input type="checkbox"/> other |   |                |           |             |                     |         |   |   |
| <input type="checkbox"/> nocturnal birds   |   |                |           |             |                     |         |   |   |
| Species Targeted   |   |                |           |             |                     |         |   |   |
| SITE(S) - AMG  | Site.....   | Easting        | 415 980   |             | Calls Played        |         |   | 486 SQG   |
| COORDINATES  | Zone  | Northing       | 6704150   |             | Notes.....          |         |   | No owl-calls played due to responses earlier in this survey in this comp. |
| BROAD HABITAT TYPE (1 only)  | Rainforest <input type="checkbox"/> Sclerophyll <input type="checkbox"/> Woodland <input type="checkbox"/>  |                |           |             |                     |         |   |   |
|  | Subtropical <input type="checkbox"/> Wet Sclerophyll <input type="checkbox"/> Shrub Woodland <input type="checkbox"/>                             |                |           |             |                     |         |   |   |
|  | Dry <input type="checkbox"/> Dry Sclerophyll <input checked="" type="checkbox"/> Heath Woodland <input type="checkbox"/>                          |                |           |             |                     |         |   |   |
|  | Temperate <input type="checkbox"/> Swamp Sclerophyll <input type="checkbox"/> Tall Woodland <input type="checkbox"/>                              |                |           |             |                     |         |   |   |
| FOREST TYPE NUMBER(S)  | 163   |                |           |             |                     |         |   |   |
| LOCATION DESCRIPTION   | <del>HEMETS PR RD</del> Hemets Pr Rd. <del>CLAY</del> <del>CLAY</del>   |                |           |             |                     |         |   |   |
| CENSUS 1   | Start Time: 6.25pm Finish Time: 7.10pm Total Travel Time 45mins   |                |           |             |                     |         |   |   |
| WEATHER  | Temperature 13.5 Relative Humidity 80% Time 6.42 am / pm  |                |           |             |                     |         |   |   |
| Wind (1 only for all)  | <input checked="" type="checkbox"/> calm <input type="checkbox"/> moderate - moves branches   |                |           |             |                     |         |   |   |
|  | <input type="checkbox"/> light - leaves rustle <input type="checkbox"/> strong - impedes progress   |                |           |             |                     |         |   |   |
| Rain   | <input type="checkbox"/> rain during survey <input type="checkbox"/> no evidence of rain in the last 24 hrs                                       |                |           |             |                     |         |   |   |
|  | <input checked="" type="checkbox"/> evidence of rain in last 24 hrs   |                |           |             |                     |         |   |   |
| Night light  | <input type="checkbox"/> very dark - no moon+cloud <input checked="" type="checkbox"/> detail seen - moon and cloudy cloudy                       |                |           |             |                     |         |   |   |
|  | <input type="checkbox"/> dark - quarter moon or moon with heavy cloud <input type="checkbox"/> bright - half moon or more and no cloud            |                |           |             |                     |         |   |   |
| CENSUS 2   | Start Time: 5.55pm Finish Time: 6.35pm Total Travel Time 40mins   |                |           |             |                     |         |   |   |
| WEATHER  | Temperature 12°C Relative Humidity 75% Time 6.20 am / pm  |                |           |             |                     |         |   |   |
| Wind (1 only for all)  | <input checked="" type="checkbox"/> calm <input type="checkbox"/> moderate - moves branches   |                |           |             |                     |         |   |   |
|  | <input type="checkbox"/> light - leaves rustle <input type="checkbox"/> strong - impedes progress   |                |           |             |                     |         |   |   |
| Rain   | <input type="checkbox"/> rain during survey <input checked="" type="checkbox"/> no evidence of rain in the last 24 hrs                            |                |           |             |                     |         |   |   |
|  | <input type="checkbox"/> evidence of rain in last 24 hrs  |                |           |             |                     |         |   |   |
| Night light  | <input type="checkbox"/> very dark - no moon+cloud <input checked="" type="checkbox"/> detail seen - moon and clear sky                           |                |           |             |                     |         |   |   |
|  | <input checked="" type="checkbox"/> dark - quarter moon or moon with heavy cloud <input type="checkbox"/> bright - half moon or more and no cloud |                |           |             |                     |         |   |   |
| OBSERVATION DETAILS  |   |                |           |             |                     |         |   |   |
| DATE   | CENSUS  | SPECIES        | OBS.      | COUNT       | RESPONSE (ESTIMATE) |         | NOTES (appearance, sex, note if count an estimate, AMG of S1 or S2) |   |
|  | NO.   |                | TYPE      |             | DISTANCE            | BEARING |   |   |
| 3.6  | 1   | sugar glider   | heard     |             | 100m (+/-)          | /       | observed during spotlight from callback site.                       |   |
|  |   |                |           |             | (+/-)               |         |   |   |
| 4.6  | 2   | sugar glider   | heard     |             | 150m (+/-)          |         | Heard in listening-time before playback.                            |   |
| 4.6  | 2   | Owlet nightjar | " "       |             | 50m (+/-)           |         | Heard in listening-time after playback.                             |   |
|  |   |                |           |             | (+/-)               |         |   |   |
|  |   |                |           |             | (+/-)               |         |   |   |
|  |   |                |           |             | (+/-)               |         |   |   |
|  |   |                |           |             | (+/-)               |         |   |   |
|  |   |                |           |             | (+/-)               |         |   |   |



# CALL PLAYBACK - NORTHERN RIVERS REGION

| STATE FOREST <i>Brother</i>  |            | M.A. <i>Glen Jones</i>   | COMPT. <i>90/96</i>    |       |   |   |
|--|------------|--|------------------------|-------|---|---|
| OBSERVER(S) <i>N. Douglas</i>  |            | DATE FROM <i>21.4.98</i>   | REGION CODE <i>461</i> |       |   |   |
| SURVEY NAME <i>Pre-Harvest</i>   |            | Part of Spotlight Transect? <i>YES</i> NO specify...   |                        |       |   |   |
| DETECTION METHOD(S)<br><input checked="" type="checkbox"/> arboreal mammals<br><input checked="" type="checkbox"/> nocturnal birds   |            | <input type="checkbox"/> diurnal birds<br><input type="checkbox"/> other   |                        |       |   |   |
| Species Targeted <i>YBG, SQG, Koala, PO, MO, SO</i>  |            |  |                        |       |   |   |
| SITE(S) - AMG Site <i>5</i> Easting <i>413200</i>  |            | Calls Played   |                        |       |   |   |
| COORDINATES Zone Northing <i>6701600</i>   |            | Notes..... <i>Did not repeat this callback site due to R. Kooyman's survey in the time between his hearing all birds during this.</i>  |                        |       |   |   |
| BROAD HABITAT TYPE (1 only)<br>Rainforest<br>Subtropical <input type="checkbox"/><br>Dry <input type="checkbox"/><br>Temperate <input type="checkbox"/>  |            | Sclerophyll<br>Wet Sclerophyll <input type="checkbox"/><br>Dry Sclerophyll <input checked="" type="checkbox"/><br>Swamp Sclerophyll <input type="checkbox"/><br>Woodland<br>Shrub Woodland <input type="checkbox"/><br>Heath Woodland <input type="checkbox"/><br>Tall Woodland <input type="checkbox"/> |                        |       |   |   |
| FOREST TYPE NUMBER(S)  |            |  |                        |       |   |   |
| LOCATION DESCRIPTION<br><i>Landsend Road.</i>  |            |  |                        |       |   |   |
| CENSUS 1<br>Start Time: <i>7:30</i> Finish Time: <i>7:45</i> Total Travel Time   |            |  |                        |       |   |   |
| WEATHER<br>Temperature <i>15</i> Relative Humidity <i>90%</i> Time <i>6:30</i> am / pm   |            |  |                        |       |   |   |
| Wind (1 only for all)<br><input checked="" type="checkbox"/> calm<br><input type="checkbox"/> light - leaves rustle<br><input type="checkbox"/> moderate - moves branches  |            |  |                        |       |   |   |
| Rain<br><input checked="" type="checkbox"/> rain during survey<br><input type="checkbox"/> evidence of rain in last 24 hrs<br><input type="checkbox"/> strong - impedes progress<br><input type="checkbox"/> no evidence of rain in the last 24 hrs                                    |            |  |                        |       |   |   |
| Night light<br><input type="checkbox"/> very dark - no moon+cloud<br><input checked="" type="checkbox"/> dark - quarter moon or moon with heavy cloud<br><input type="checkbox"/> detail seen - moon and clear sky<br><input type="checkbox"/> bright - half moon or more and no cloud |            |  |                        |       |   |   |
| CENSUS 2<br>Start Time: Finish Time: Total Travel Time   |            |  |                        |       |   |   |
| WEATHER<br>Temperature Relative Humidity Time am / pm  |            |  |                        |       |   |   |
| Wind (1 only for all)<br><input type="checkbox"/> calm<br><input type="checkbox"/> light - leaves rustle<br><input type="checkbox"/> moderate - moves branches   |            |  |                        |       |   |   |
| Rain<br><input type="checkbox"/> rain during survey<br><input type="checkbox"/> evidence of rain in last 24 hrs<br><input type="checkbox"/> strong - impedes progress<br><input type="checkbox"/> no evidence of rain in the last 24 hrs   |            |  |                        |       |   |   |
| Night light<br><input type="checkbox"/> very dark - no moon+cloud<br><input type="checkbox"/> dark - quarter moon or moon with heavy cloud<br><input type="checkbox"/> detail seen - moon and clear sky<br><input type="checkbox"/> bright - half moon or more and no cloud            |            |  |                        |       |   |   |
| OBSERVATION DETAILS  |            |  |                        |       |   |   |
| DATE   | CENSUS NO. | SPECIES  | OBS. TYPE              | COUNT | RESPONSE (ESTIMATE)<br>DISTANCE BEARING | NOTES (appearance, sex, note if count an estimate, AMG of S1 or S2) |
| <i>21.3.</i>   | <i>B1</i>  | <i>Nil. Response.</i>  |                        |       | <i>(+/-)</i>                            |   |
|  |            |  |                        |       | <i>(+/-)</i>                            |   |
|  |            |  |                        |       | <i>(+/-)</i>                            |   |
|  |            |  |                        |       | <i>(+/-)</i>                            |   |
|  |            |  |                        |       | <i>(+/-)</i>                            |   |
|  |            |  |                        |       | <i>(+/-)</i>                            |   |
|  |            |  |                        |       | <i>(+/-)</i>                            |   |
|  |            |  |                        |       | <i>(+/-)</i>                            |   |
|  |            |  |                        |       | <i>(+/-)</i>                            |   |



# SPOTLIGHT TRANSECT - SAMPLE REGION

|  |  |  |  |                   |          |       |
|--|--|--|--|-------------------|----------|-------|
| OBSERVER(S)<br><b>N. Douglas N. Harvey.</b>  |  | START DATE <b>18.3.98</b>  | REGION CODE <b>461</b>                         |                   |          |       |
| STATE FOREST <b>Brother SF</b>   |  | FINISH DATE <b>19.3.98</b>   | COMPT. <b>90</b>                               |                   |          |       |
| SURVEY NAME<br><b>Pre-hobbing survey</b>   |  | M.A. <b>Casino</b>   | TIME Start <b>8</b> am / pm Finish <b>9</b> pm |                   |          |       |
| DETECTION METHOD(S)<br><input checked="" type="checkbox"/> spotlight - vehicular transect<br><input checked="" type="checkbox"/> spotlight - foot transect |  | NUMBER OF TRANSECTS. <b>2</b>  |  |                   |          |       |
| BROAD FOREST TYPE<br>Rainforest<br><input type="checkbox"/> Subtropical<br><input type="checkbox"/> Dry<br><input type="checkbox"/> Temperate              |  | Sclerophyll<br><input type="checkbox"/> Wet Sclerophyll<br><input checked="" type="checkbox"/> Dry Sclerophyll<br><input type="checkbox"/> Swamp Sclerophyll |  |                   |          |       |
| FOREST TYPE NUMBER(S)  |  | Woodland<br><input type="checkbox"/> Shrub Woodland<br><input type="checkbox"/> Heath Woodland<br><input type="checkbox"/> Tall Woodland                     |  |                   |          |       |
| Location Description<br><b>Lands end Road.</b>   |  |  |  |                   |          |       |
| TRANSECT 1   |  | Location Description   |  |                   |          |       |
| Total Distance <b>2 km</b>   |  | <b>Lands End Road.</b>   |  |                   |          |       |
| Species Targeted   |  |  |  |                   |          |       |
| AMG Start  | Easting <b>67.4.12.075</b>   | Finish   | Easting <b>4.13.145</b>                        |                   |          |       |
| COORDINATES  | Northing <b>67.02.500</b>  |  | Northing <b>67.01.300</b>                      |                   |          |       |
| WEATHER  | Temperature  | Time   | am / pm  |                   |          |       |
| Wind   | <input checked="" type="checkbox"/> calm<br><input type="checkbox"/> light - leaves rustle   | <input type="checkbox"/> moderate - moves branches<br><input type="checkbox"/> strong - impedes progress   |  |                   |          |       |
| Rain   | <input type="checkbox"/> rain during survey<br><input checked="" type="checkbox"/> evidence of rain in last 24 hrs                     | <input type="checkbox"/> no evidence of rain in the last 24 hrs  |  |                   |          |       |
| Night light  | <input type="checkbox"/> very dark - no moon+cloud<br><input checked="" type="checkbox"/> dark - quarter moon or moon with heavy cloud | <input type="checkbox"/> detail seen - moon and clear sky<br><input type="checkbox"/> bright - half moon or more and no cloud                                |  |                   |          |       |
| TRANSECT 2   |  | Location Description   |  |                   |          |       |
| Total Distance <b>2 km</b>   |  |  |  |                   |          |       |
| Species Targeted   |  |  |  |                   |          |       |
| AMG Start  | Easting <b>4.12.075</b>  | Finish   | Easting <b>4.13.145</b>                        |                   |          |       |
| COORDINATES  | Northing <b>67.02.500</b>  |  | Northing <b>67.01.300</b>                      |                   |          |       |
| WEATHER  | Temperature  | Time   | am / pm  |                   |          |       |
| Wind   | <input checked="" type="checkbox"/> calm<br><input type="checkbox"/> light - leaves rustle (2)   | <input type="checkbox"/> moderate - moves branches<br><input type="checkbox"/> strong - impedes progress   |  |                   |          |       |
| Rain   | <input type="checkbox"/> rain during survey<br><input checked="" type="checkbox"/> evidence of rain in last 24 hrs                     | <input type="checkbox"/> no evidence of rain in the last 24 hrs  |  |                   |          |       |
| Night light  | <input type="checkbox"/> very dark - no moon+cloud<br><input type="checkbox"/> dark - quarter moon or moon with heavy cloud            | <input type="checkbox"/> detail seen - moon and clear sky<br><input type="checkbox"/> bright - half moon or more and no cloud                                |  |                   |          |       |
| OBSERVATIONS   |  |  |  |                   |          |       |
| DIST.  | TRANS. NO.   | SPECIES  | OBS. TYPE                                      | DIST. from TRANS. | COUNT    | NOTES |
| <b>200</b>   | <b>1</b>   | <b>greater Glider</b>  | <b>Sighted</b>                                 | <b>60m</b>        | <b>2</b> |       |
|  |  |  |  |                   |          |       |
|  |  |  |  |                   |          |       |
|  |  |  |  |                   |          |       |
|  |  |  |  |                   |          |       |

OVERLEAF? YES / NO SKETCH MAP OVERLEAF? YES / NO



# SPOTLIGHT TRANSECT - NORTHERN RIVERS REGION

|   |            |  |              |   |          |  |
|---|------------|--|--------------|---|----------|--|
| STATE FOREST <u>Brother</u>   |            | M.A. <u>Glen Innes</u>   |              | COMPT. <u>96</u>  |          |  |
| OBSERVER(S) <u>N. &amp; K. Hudson RH</u>  |            | DATE FROM <u>3-6-98</u>  |              | REGION  |          |  |
| SURVEY NAME <u>Pre-harvest</u>  |            | DATE TO <u>4-6-98</u>  |              | CODE <u>461</u>   |          |  |
| DETECTION METHOD(S)   |            | NUMBER OF TRANSECTS  |              |   |          |  |
| <input checked="" type="checkbox"/> vehicular transect  |            | Census No(s) <u>1</u>  |              | Notes:  |          |  |
| <input checked="" type="checkbox"/> foot transect   |            | Census No(s) <u>2</u>  |              |   |          |  |
| Species Targeted  |            |  |              |   |          |  |
| TRANSECT DETAILS  |            |  |              |   |          |  |
| Total Distance <u>5.00m</u>   |            | Location Description <u>Along Road 96/2</u>                                |              |   |          |  |
| AMG <u>Start</u>  |            | Easting <u>414200</u>  |              | Finish  |          |  |
| COORDINATES   |            | Northing <u>6700550</u>  |              | Easting <u>414650</u>                                     |          |  |
| BROAD HABITAT TYPE  |            | Northing <u>6700650</u>  |              |   |          |  |
| <input type="checkbox"/> Rainforest   |            | <input type="checkbox"/> Sclerophyll                                       |              | <input type="checkbox"/> Woodland                         |          |  |
| <input type="checkbox"/> Subtropical  |            | <input type="checkbox"/> Wet Sclerophyll                                   |              | <input type="checkbox"/> Shrub Woodland                   |          |  |
| <input type="checkbox"/> Dry  |            | <input checked="" type="checkbox"/> Dry Sclerophyll                        |              | <input type="checkbox"/> Heath Woodland                   |          |  |
| <input type="checkbox"/> Temperate  |            | <input type="checkbox"/> Swamp Sclerophyll                                 |              | <input type="checkbox"/> Tall Woodland                    |          |  |
| FOREST TYPE NUMBER(S)   |            | <u>163</u>   |              |   |          |  |
| CENSUS 1  |            |  |              |   |          |  |
| TIME  |            | Start Time <u>7:00 pm</u>  |              | Finish Time <u>7:40 pm</u>                                |          |  |
| WEATHER   |            | Temperature <u>12°C</u>  |              | Relative Humidity <u>90%</u>                              |          |  |
| Wind  |            | <input checked="" type="checkbox"/> calm                                   |              | Total Travel Time <u>40 min</u>                           |          |  |
| <input type="checkbox"/> light - leaves rustle  |            | <input type="checkbox"/> moderate - moves branches                         |              | Time <u>6:25</u> <del>am</del> / pm                       |          |  |
| <input type="checkbox"/> rain during survey   |            | <input type="checkbox"/> strong - impedes progress                         |              |   |          |  |
| <input checked="" type="checkbox"/> evidence of rain in last 24 hrs                                     |            | <input type="checkbox"/> no evidence of rain in the last 24 hrs            |              |   |          |  |
| Night light   |            | <input type="checkbox"/> very dark - no moon+cloud                         |              | <input type="checkbox"/> detail seen - moon and clear sky |          |  |
| <input checked="" type="checkbox"/> dark - quarter moon or moon with <u>some</u> <del>heavy</del> cloud |            | <input type="checkbox"/> bright - half moon or more and no cloud           |              |   |          |  |
| CENSUS 2  |            |  |              |   |          |  |
| TIME  |            | Start Time <u>8:55 pm</u>  |              | Finish Time <u>9:35 pm</u>                                |          |  |
| WEATHER   |            | Temperature <u>12°C</u>  |              | Relative Humidity <u>75%</u>                              |          |  |
| Wind  |            | <input checked="" type="checkbox"/> calm                                   |              | Total Travel Time <u>40 mins</u>                          |          |  |
| <input type="checkbox"/> light - leaves rustle  |            | <input type="checkbox"/> moderate - moves branches                         |              | Time <u>7:30</u> <del>am</del> / pm                       |          |  |
| <input type="checkbox"/> rain during survey   |            | <input type="checkbox"/> strong - impedes progress                         |              |   |          |  |
| <input type="checkbox"/> evidence of rain in last 24 hrs  |            | <input checked="" type="checkbox"/> no evidence of rain in the last 24 hrs |              |   |          |  |
| Night light   |            | <input type="checkbox"/> very dark - no moon+cloud                         |              | <input type="checkbox"/> detail seen - moon and clear sky |          |  |
| <input checked="" type="checkbox"/> dark - quarter moon or moon with <u>heavy</u> cloud                 |            | <input type="checkbox"/> bright - half moon or more and no cloud           |              |   |          |  |
| OBSERVATIONS  |            |  |              |   |          |  |
| DIST.   | TRANS. NO. | SPECIES  | OBS. TYPE    | DIST. from TRANS  | Count    | NOTES (AMGs for S1&S2 spp, note if count is an estimate) |
| <u>100m</u>   | <u>1</u>   | <u>GA</u>  | <u>Sight</u> | <u>20m</u>  | <u>1</u> |  |
|   |            |  |              |   |          |  |
|   | <u>2</u>   | <u>- nil -</u>   |              |   |          |  |
|   |            |  |              |   |          |  |
|   |            |  |              |   |          |  |
|   |            |  |              |   |          |  |
|   |            |  |              |   |          |  |
|   |            |  |              |   |          |  |

PAGE     of    . SKETCH MAP OVERLEAF? YES / NO





PAGE 1 of 2. SKETCH MAP OVERLEAF? ~~YES~~ / NO

## SPOTLIGHT

PAGE 2 OF 2

## SPOTLIGHT



PAGE 1 of 2. SKETCH MAP OVERLEAF? YES / NO

## SPOTLIGHT

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PAGE        of       . SKETCH MAP OVERLEAF? YES / NO

## SPOTLIGHT

PAGE \_\_\_\_ OF \_\_\_\_

## SPOTLIGHT





# CALL PLAYBACK - SAMPLE REGION

R2

|  |      |  |             |   |                      |   |  |
|--|------|--|-------------|---|----------------------|---|--|
| STATE FOREST <u>BROTHER SF</u>   |      | M.A. <u>Glen Innes</u>   |             | COMPT. <u>96</u>                        |                      |   |  |
| OBSERVER(S) <u>Robert Kooyman</u>  |      | DATE FROM <u>27-4-98</u>   |             | REGION                                  |                      |   |  |
| SURVEY NAME <u>Survey PROT. cons.</u>  |      | DATE TO  |             | CODE                                    |                      |   |  |
| DETECTION METHOD(S)<br><u>LISTEN</u><br><u>CALL PLAYBACK</u><br><u>SPOTLIGHT</u>                         |      | Part of Spotlight Transect? <u>YES</u> <u>NO</u> specify...                |             |   |                      |   |  |
| <input checked="" type="checkbox"/> arboreal mammals   |      | <input checked="" type="checkbox"/> diurnal birds                          |             | <input type="checkbox"/> other          |                      |   |  |
| <input checked="" type="checkbox"/> nocturnal birds  |      |  |             |   |                      |   |  |
| Species Targeted <u>P.O., M.O., S.O., YBG</u>  |      | Calls Played <u>MO, SO, YBG</u>  |             |   |                      |   |  |
| CENSUS 1   |      | Start Time: <u>6:00 p</u>  |             | Finish Time: <u>8:30 p</u>              |                      |   |  |
| SITE(S) - AMG Site.....  |      | Easting <u>4 14750</u>   |             | Total Travel Time                       |                      |   |  |
| COORDINATES Zone   |      | Northing <u>66 01250</u>   |             | Site.....                               |                      |   |  |
| BROAD HABITAT TYPE (1 only)  |      | Zone   |             | Easting                                 |                      |   |  |
| Rainforest   |      | Sclerophyll  |             | Woodland                                |                      |   |  |
| Subtropical <input type="checkbox"/>   |      | Wet Sclerophyll <input checked="" type="checkbox"/>                        |             | Shrub Woodland <input type="checkbox"/> |                      |   |  |
| Dry <input type="checkbox"/>   |      | Dry Sclerophyll <input type="checkbox"/>                                   |             | Heath Woodland <input type="checkbox"/> |                      |   |  |
| Temperate <input type="checkbox"/>   |      | Swamp Sclerophyll <input type="checkbox"/>                                 |             | Tall Woodland <input type="checkbox"/>  |                      |   |  |
| FOREST TYPE NUMBER(S) <u>Fr. 163</u>   |      |  |             |   |                      |   |  |
| LOCATION DESCRIPTION<br><u>Cmpt. 96. Main access trail through Cmpt. Top and near Land's End (300m).</u> |      |  |             |   |                      |   |  |
| WEATHER <u>Fine, clear</u>   |      | Temperature <u>11°C 7:30</u>   |             | Relative Humidity <u>35%</u>            |                      |   |  |
| Wind (1 only for all) <input checked="" type="checkbox"/> calm   |      | Time <u>7:30</u>   |             | <u>am + pm</u>                          |                      |   |  |
| <input checked="" type="checkbox"/> light - leaves rustle  |      | <input type="checkbox"/> moderate - moves branches                         |             |   |                      |   |  |
| Rain <input type="checkbox"/> rain during survey   |      | <input type="checkbox"/> strong - impedes progress                         |             |   |                      |   |  |
| <input type="checkbox"/> evidence of rain in last 24 hrs   |      | <input checked="" type="checkbox"/> no evidence of rain in the last 24 hrs |             |   |                      |   |  |
| Night light <input checked="" type="checkbox"/> very dark - no moon+cloud                                |      | <input type="checkbox"/> detail seen - moon and clear sky                  |             |   |                      |   |  |
| <input type="checkbox"/> dark - quarter moon or moon with heavy cloud                                    |      | <input type="checkbox"/> bright - half moon or more and no cloud           |             |   |                      |   |  |
| OBSERVATION DETAILS  |      |  |             |   |                      |   |  |
| DATE   | SITE | SPECIES  | OBS.        | COUNT                                   | RESPONSE (ESTIMATE)  | NOTES (appearance, sex, note if count an estimate, AMG of S1 or S2) |  |
|  | NO.  |  | TYPE        |   | DISTANCE             | BEARING   |  |
| 27/4   | RK2  | Powerful Owl   | heard calls | 1                                       | 1 km (+/-) 250m      | NNW   | not playback response, natural calling, early evening. |
| 27/4   | RK2  | Sooty Owl  | heard calls | 1                                       | 500m (+/-) 100m      | NNW 30°   | 15m after playback. due banks & drilling.              |
| 27/4   | RK2  | Sooty Owl (s)  | calls       | 2                                       | 100m (+/-) 75m       | around site RK2   | drilling calls, 2 birds around my camp RK2             |
| 27/4   | RK2  | Greater Gliders  | spans       | 10                                      | RK2 0m (+/-) to 600m | transsect   | walking spotlight NESET                                |
| 27/4   | RK2  | Boobook owl  | heard       | 1                                       | 200m (+/-) 50m       |   | Fr 163.  |
|  |      |  |             |   | (+/-)                |   |  |
|  |      |  |             |   | (+/-)                |   |  |
|  |      |  |             |   | (+/-)                |   |  |
|  |      |  |             |   | (+/-)                |   |  |
|  |      |  |             |   | (+/-)                |   |  |
|  |      |  |             |   | (+/-)                |   |  |
|  |      |  |             |   | (+/-)                |   |  |
|  |      |  |             |   | (+/-)                |   |  |
|  |      |  |             |   | (+/-)                |   |  |
|  |      |  |             |   | (+/-)                |   |  |

April, 1948

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