



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

NORTHERN REGION URBENVILLE MANAGEMENT AREA  
RIVERS

STATE FOREST: YABBRA

SURVEY REPORT NO: YA2.3/98 COMPARTMENT 196, 199

**Flora and Threatened Fauna Features Traverse**

Net Area: 339 hectares

Traverse Length: 10.5 kilometres (route of traverse on attached map)

Surveyed By: D. Binns

Duration of Traverse: not given (carried out between 8-10/3/98)

*1. Conservation Protocol Appendix 1 Flora Detections*

Species Name	AMGNorth	AMGEast	Locality Description	Date	Observers Name	Number Observed	Count/ Estimate
<i>Cynanchum elegans</i>							

Notes: This survey done to supplement previous surveys by R. Heyward et al (see report 8/9/97).

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
Golden-tipped Bat	No	Yes
Glossy Black Cockatoo	No	Yes

Notes: This survey done to supplement previous surveys by R. Heyward et al (see report 8/9/97). The location of the bat can be seen from the Harp Trap site Compt 196 (19/3/98)

Number of Data Sheets Attached: 1

NORTHERN RIVERS REGION - Threatened Species Pre-logging and Pre-logging Survey

NORTHERN REGION URBENVILLE MANAGEMENT AREA  
RIVERS

STATE FOREST: YABBRA

SURVEY REPORT NO: YA2.3/98 COMPARTMENT 196, 199

**PART C: TARGETED FAUNA SURVEYS**

*Surveys Undertaken*

Survey Type	Date Undertaken	Time Spent	Undertaken By
Call Playback (N end 196)	12/3/98	0:45 hrs	M. Crowley/K. McCray
Call Playback (1km S of above)	12/3/98	0:45 hrs	M. Crowley/K. McCray
Spotlight (walk) (T4)	12/3/98	1:10 hrs	M. Crowley/K. McCray
Call Playback (SW 199)	13/3/98	1:00 hrs	M. Crowley/K. McCray
Spotlight (drive) (T4)	13/3/98	1:00 hrs	M. Crowley/K. McCray
Spotlight (drive) (S 199)	13/3/98	1:00 hrs	M. Crowley/K. McCray
Bat Survey (3 Sites-2 traps)	12-14/3/98		M. Crowley/K. McCray
Bat Survey (2 Sites-2 traps)	19-20/3/98		J. & J. Reside

Location of surveys shown on attached maps.

Notes: Refer to attachments

Number of Data Sheets Attached: 18

NORTHERN RIVERS REGION - Threatened Species Pre-logging and Pre-roading Survey

NORTHERN REGION URBENVILLE MANAGEMENT AREA  
RIVERS

STATE FOREST: YABBRA

SURVEY REPORT NO: YA2.3/98 COMPARTMENT 196, 199

**PART D. SURVEY RESULTS**

Prepared By: K. McCray

Date: 17/3/98

*New Threatened Fauna Detections*

Species Name	AMG East	AMG North	Date	Observation Type	Observers Name	Survey/ Incidental
Masked Owl	4 48 700	68 21 520	13/3/98	Heard	M. Crowley/K. McCray	Survey
Golden-tipped Bat	4 49 400	68 23 600	19/3/98	Captured	J. & J. Reside	Survey
Golden-tipped Bat	4 49 200	68 24 700	19/3/98	Captured	J. & J. Reside	Survey
Glossy-black Cockatoo	4 50 400	68 21 600	19/3/98	Heard	J. & J. Reside	Incidental

Notes: Further details are provided on appended sheets

**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:

- Masked Owl.
- Golden-tipped Bat
- Glossy Black Cockatoo

**Attachments:**

1. Flora survey report by D. Binns
2. Map 1 showing survey effort in compartment 196
3. Map 2 showing survey effort in compartment 199
4. Map 3 showing threatened fauna detections in compartment 199
5. Map 4 showing additional survey effort in compartment 196
6. Map 5 showing additional survey effort in compartment 199



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

NORTHERN REGION URBENVILLE MANAGEMENT AREA  
RIVERS

STATE FOREST: YABBRA

SURVEY REPORT NO: YA1.3/98 COMPARTMENT 286

**Flora and Threatened Fauna Features Traverse**

Net Area: 192 hectares

*1. Conservation Protocol Appendix 1 Flora Detections*

Species Name	AMGNorth	AMGEast	Locality Description	Date	Observers Name	Number Observed	Count/ Estimate
<i>Tylophora woolsii</i>					D. Binns		
<i>Plectanthurus sp.</i>					D. Binns		

Notes: See Doug Binns' report (11/3/98) and Roger Heywood's report (8/9/97) for further details.

*2. Conservation Protocol Threatened Fauna Features Detected*

Feature Type	Marked in Field	Marked on Map
Glossy-black Cockatoo feeding site	No	Yes
Masked Owl	No	Yes

Notes: See reports above for further details.

NORTHERN RIVERS REGION - Threatened Species Pre-logging and Pre-roading Survey  
 NORTHERN REGION URBENVILLE MANAGEMENT AREA  
 RIVERS

STATE FOREST: YABBRA

SURVEY REPORT NO: YA1.3/98 COMPARTMENT 286

*Surveys Undertaken*

Survey Type	Date Undertaken	Time Spent	Undertaken By
Call Playback	9/3/98	0:53 hrs	D. Binns, M. Crowley, K. McCray
Spotlight (walk)	9/3/98	1:02 hrs	M. Crowley, K. McCray
Bat Survey (2 sites)	9-11/3/98		M. Crowley, K. McCray
Koala Traverses (2km)	10/3/98	4:25 hrs total	M. Crowley, K. McCray
Koala Star Traverse	10/3/98	2:15 hrs	K. McCray
Supplemental: Masked Owl	19/3/98	0:50 hrs	N.W. Longmore
Marbled Frogmouth	21/9/98	0:30 hrs	N.W. Longmore

Location of surveys shown on attached maps.

Notes: Please note these surveys are only to supplement surveys carried out by R. Heywood et. al. (see report of 8/9/97)

**PART D. SURVEY RESULTS**

Prepared By: K. McCray

Date: 17/3/98

*New Threatened Fauna Detections*

Species Name	AMG East	AMG North	Date	Observation Type	Observers Name	Survey/ Incidental
<i>K. papuensis</i>	4 43 600	68 25 450	11/3/98	Capture	M. Crowley/K. McCray	Survey
Glossy-black Cockatoo	4 43 400	68 25 100	10/3/98	Seen	K. McCray	Survey
Glossy-black Cockatoo	4 44 100	68 25 150	10/3/98	Seen	M. Crowley/K. McCray	Survey
Masked Owl	4 43 800	68 25 200	10/3/98	Heard	M. Crowley.K. McCray	Incidental
Glossy-black Cockatoo	4 43 500	68 25 500	19/3/98	Feeding site	N.W. Longmore	Incidental
Masked Owl	4 44 800	68 25 400	21/3/98	Heard	N.W. Longmore	Incidental
Masked Owl	4 44 500	68 25 300	21/3/98	Heard	N.W. Longmore	Incidental

**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:

- Golden-tipped Bat

## NORTHERN RIVERS REGION - Threatened Species Pre-logging and Pre-roading Survey

- Glossy-black Cockatoo.
- Masked Owl
- Koala High-use area.

# CONCLUDING FAUNA SURVEYS of COMPARTMENTS 196 & 199, WITH SUPPLEMENTAL NOTES, AND ADDITIONAL SURVEYS FOR SPECIFIC SPECIES WITHIN COMPARTMENT 286

-prepared by N.W. Longmore, [Acting Ecologist] Northern Rivers Region. March 1998

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

## Introduction:

Concluding surveys for bats, koalas, and frogs in compartments 196 and 199 were conducted by J. & J. Reside [19-20 March 1998], with some supplemental work being carried out on spotlighting and harp trapping [lists appended]. Additional surveys for frogs in both compartments were carried out by N.W. Longmore [21 March 1998]. Supplemental surveys for Masked Owl [Tyto novaehollandiae] and Marbled Frogmouth [Podargus ocellatus] within compartment 286 were carried out on 19 March 1998 and 21 March 1998 respectively [reports and lists appended]. This report adds to and supplements those provided previously.

## Fauna survey methodology:

Includes application of the pre-logging / roading survey design forming part of the Threatened Species Protocol [3 September 1997], incidental records collected during the survey, as well as integrated koala transect surveys, harp trap surveys, and frog transects, and includes:

1. Walked spotlight transects, one kilometre long (minimum), 100 watt spotlight.
2. Call playback for target species: Masked Owl, Marbled Frogmouth.  
Calls are commenced after a substantial listening period and played briefly at a low volume. This is done to avoid disrupting localised activity of the target or other species that may respond, or be disturbed, and to maximise knowledge of actual habitat use, rather than gaining response from further afield, this is followed by louder playbacks.
3. Extended listening time for calls, usually two minutes after the first broadcast and ten minutes after the concluding broadcast.
4. Harp trapping for bat species.
5. Frog surveys, along creek transects, habitat searches, and call recording.
6. Both parties (Resides, and Longmore) camped out in an effort to increase the recording level for incidental and target species.

## Results of Fauna Surveys, including supplemental and target species surveys are:

1. Glossy Black Cockatoo [Calyptorhynchus lathamii] - Sch.2, this species was located just outside Compound 199 [AMG 450400 6821600]. Suitable habitat includes much of the steeper slopes and escarpment on the southern corner where Allocasuarina torulosa occurs in high density. A feeding site was located within compartment 286 with evidence of recent activity [AMG 443500 6825500, see attached report]. Like wise the sighting was in an area of high density Allocasuarina torulosa. The extent of the Allocasuarina in this compartment is complementary with the proposed Masked Owl feeding reserve. No nest hollows were located. Application of the Conservation Protocol and retention of known and potential feed trees and nest sites, located during this survey and / or the mark-up phase should assist this species.

**2. Masked Owl** [*Tyto novaehollandiae*] - Sch.2, recorded on two occasions during the supplemental surveys [AMG 444800 6825400, and 444500 6825300]. An earlier report, dated 10 July 1997, was of a "Juvenile in nest? assumed begging calls" [AMG 443700 6825100]. Suitable habitat for this species exists throughout the survey area in the drier forest types with a more open understorey. A large area of forest habitat has been reserved as feeding territory for the Masked Owl.

**3. Golden-tipped Bat** [*Kerivoula papuensis*] - Sch.2, This species was located within Compartment 196 [AMG 449400 6823600 and 449200 6824700]. Suitable habitat exists within rainforest, and wet sclerophyll forest with rainforest understorey, also wet and dry sclerophyll forests adjacent to rainforest. It has also been recorded in dry sclerophyll forest at distances from rainforest. Roost requirements are poorly known, but the species has been recorded roosting in dense clumps of vegetation, scrubwren and gerygone nests, and tree hollows. Retention of 40m wide buffer zones on both sides of streams for a distance of 200m upstream and 200m downstream closest to the record of the species should assist this species. These buffers should be mapped on Harvesting Plan Operational Map.



# PRE-HARVEST FLORA SURVEYS, YABBRA SF, CPTS 196, 199, 286

## Methods

Traverse surveys were conducted in accordance with the Survey Protocol on 8-9 July 1997 and 9-10 March 1998. Data sheets for the earlier traverses have been supplied previously. Data sheets for the most recent traverses are attached. A summary of the combined traverse details is as follows:

### Cpt 196

Approx. net harvest area:	124 ha
Total length of traverse routes:	3.1 km
Traverse length per 200 ha:	5.0 km
Total net duration of traverse survey:	hours
Survey duration per 200 ha:	hrs

### Cpt 199

Approx. net harvest area:	215 ha
Total length of traverse routes:	7.4 km
Traverse length per 200 ha:	6.9 km
Total net duration of traverse survey:	hours
Survey duration per 200 ha:	hrs

### Cpt 286

Approx. net harvest area:	192 ha
Total length of traverse routes:	8.0 km
Traverse length per 200 ha:	8.3 km
Total net duration of traverse survey:	14.0 hours
Survey duration per 200 ha:	14.6 hrs

## General description

The net harvestable area of cpt 286 is open forest of mostly a mixture of *E. propinqua*, *E. carnea*, *E. siderophloia*, *E. microcorys* and *Corymbia intermedia*. *Allocasuarina torulosa* is usually common as a subcanopy. Understorey varies from grassy with scattered shrubs to dense shrubs. Abundant grasses are *Themeda australis*, *Entolasia stricta*, *Cymbopogon refractus* and *Eremochloa bimaculata*. The most abundant shrub is *Pultenaea villosa*, with patches of *Lantana camara*. *Trochocarpa laurina* is common on lower slopes and in other sheltered microhabitats. *Backhousia myrtifolia* and *Lophostemon confertus* are dominant in narrow strips along more deeply incised gullies.

## Threatened flora species and other significant flora features

### *Tylophora woollsii* (TSC Schedule 1)

A substantial population (about 200 mature plants plus many juvenile plants) of what is probably this species was located in cpt 286. As no plants were seen in flower, it is not possible to be certain that it is this species. It may be the closely similar, but much more widespread *Tylophora paniculata*. However, based on subtle vegetative differences, I believe it is sufficiently likely to be *T. woollsii* that it should be managed as such. Plants were found to be strictly confined to creek banks, slopes close to gullies (usually within 10 m) and steep, rocky slopes elsewhere, usually at the edge of stands of *Backhousia myrtifolia*. The known extent of the population is shown on the attached map. This compartment was searched more extensively than usual because of the presence of this species, but it was not found outside

these habitats. I am confident that the mapped extent includes the main population in the net harvest area plus 50m buffer, but there may be additional stands on the steep eastern and southern slopes outside the net harvest area and there may be a few scattered plants elsewhere on stream banks. Plants which could be confidently identified as *Tylophora paniculata* were more widespread in the compartment and occurred mostly in habitats not occupied by *T. woollsii*.

The most effective way to satisfy Conservation Protocol requirements for *T. woollsii* in cpt 286 is to ensure that streamside exclusion zones adequately protect the westerly population (the easterly stand is on a very steep scree slope which is not subject to harvesting). This could be achieved by a minimum 30 m exclusion zone either side of the first order stream in this mapped population, plus extending the buffer on second and third order parts of this stream by 30 m either side (allowing for the generally steeper slopes on higher order parts of this stream, where the species may occur up to 30 m from the stream bank). Any scattered additional plants (which may have been overlooked during survey) along this stream outside the mapped population are most likely to be included in standard streamside exclusions. This would ensure that all plants were excluded from harvesting with a minimum buffer of 20 m, and avoid the need to locate all individuals for application of exclusion and modified harvesting buffers.

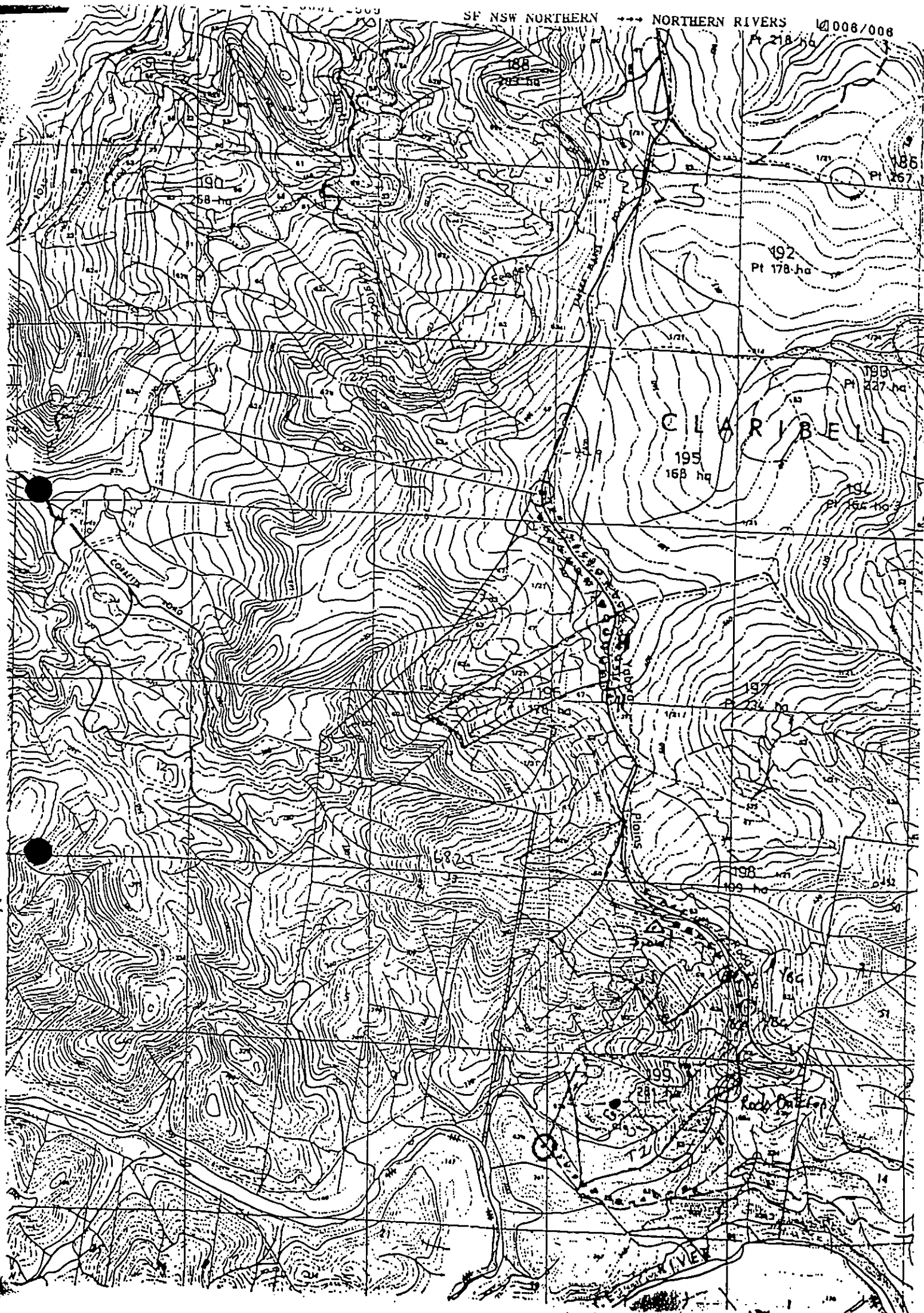
#### *Plectranthus* species

A possibly significant species of *Plectranthus*, related to *P. suaveolens*, occurs in cpt 286, confined to rocky slopes and rock outcrops near creeks. This genus is currently under revision, with several undescribed species being recognised, and it is not possible to adequately assess the significance of these taxa until the review is more advanced. The population in cpt 286 is included within the exclusion zone for *Tylophora woollsii* suggested above.

#### *Cynanchum elegans* (TSC Schedule 1)

A single small stand occupying less than 50 m<sup>2</sup> was located in cpt 199 (shown on the attached map). About 12 main stems were present, but it is likely that these represent fewer separate individuals. It could even be a single individual with multiple root suckers, as has been observed elsewhere. Under the provision of the Conservation Protocol, this species requires a 10 m harvesting exclusion plus 10 m modified harvesting (<50% removal) perimeter zone. The stand has been flagged with double pink tape. The occurrence of this species in open forest on a ridge crest is unusual. It is most likely an outlier of a main population elsewhere in the vicinity, in a more typical habitat (rainforest margins). As the usual habitat is very limited in this compartment, and since extensive searches failed to find a substantial population, it is likely that any such population is outside the compartment.

Doug Binns  
Flora Ecologist  
11 March 1998



Ø PLAYBACK SITE

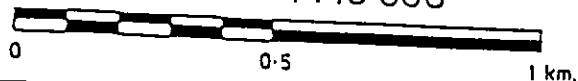
# Compartment 196

MAP 1

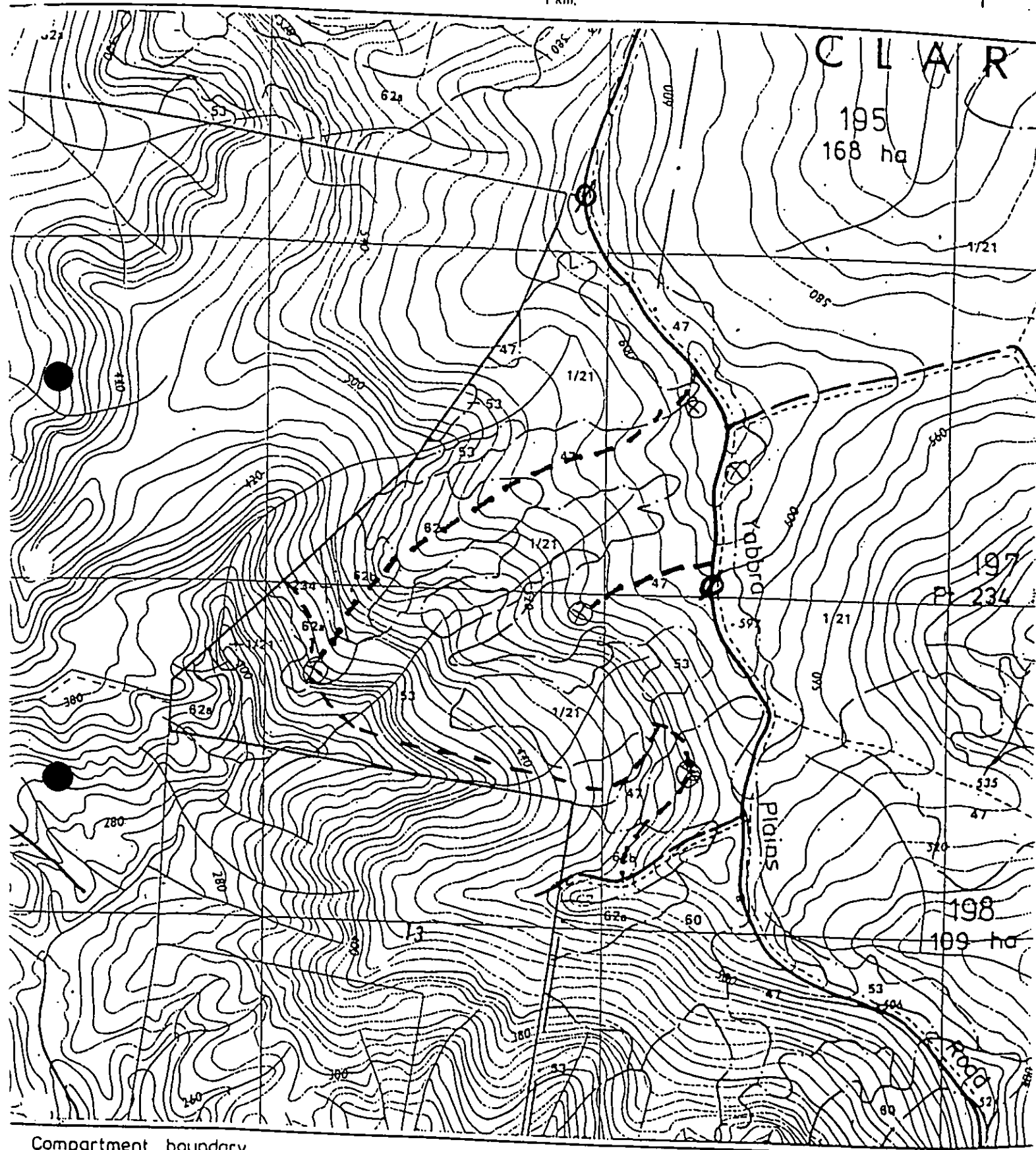
Scale — 1:15 000

CU/394

Contour interval 10m



G N



Compartment boundary

Filter strips

Protection strips

Roads, dump site

Wet weather dumps shown in red

Special emphasis

old logging roads

previous dump sites

PLAYBACK SITE

X HARP TRAP

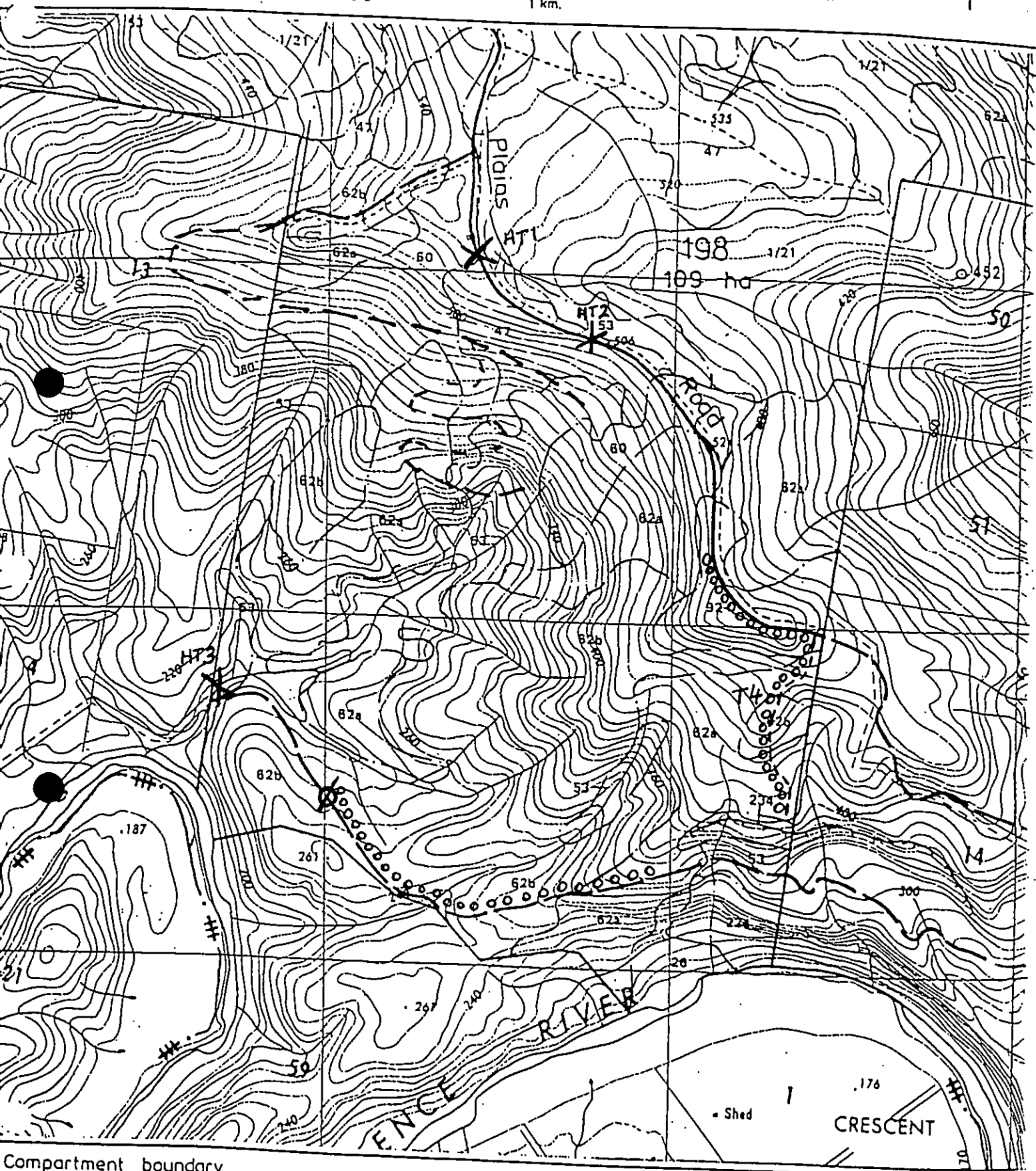
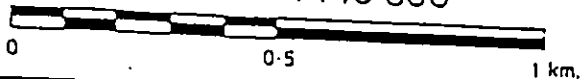
SPOTLIGHT TRANSECT

# Compartment 199

Scale — 1:15 000

CU/394

Contour interval 10m



Compartment boundary

Filter strips

Protection strips

Roads, dump site

Wet weather dumps shown in red

Special emphasis

— — — old logging roads.



X  
HOWL

MASKED OWL  
DETECTION SITE

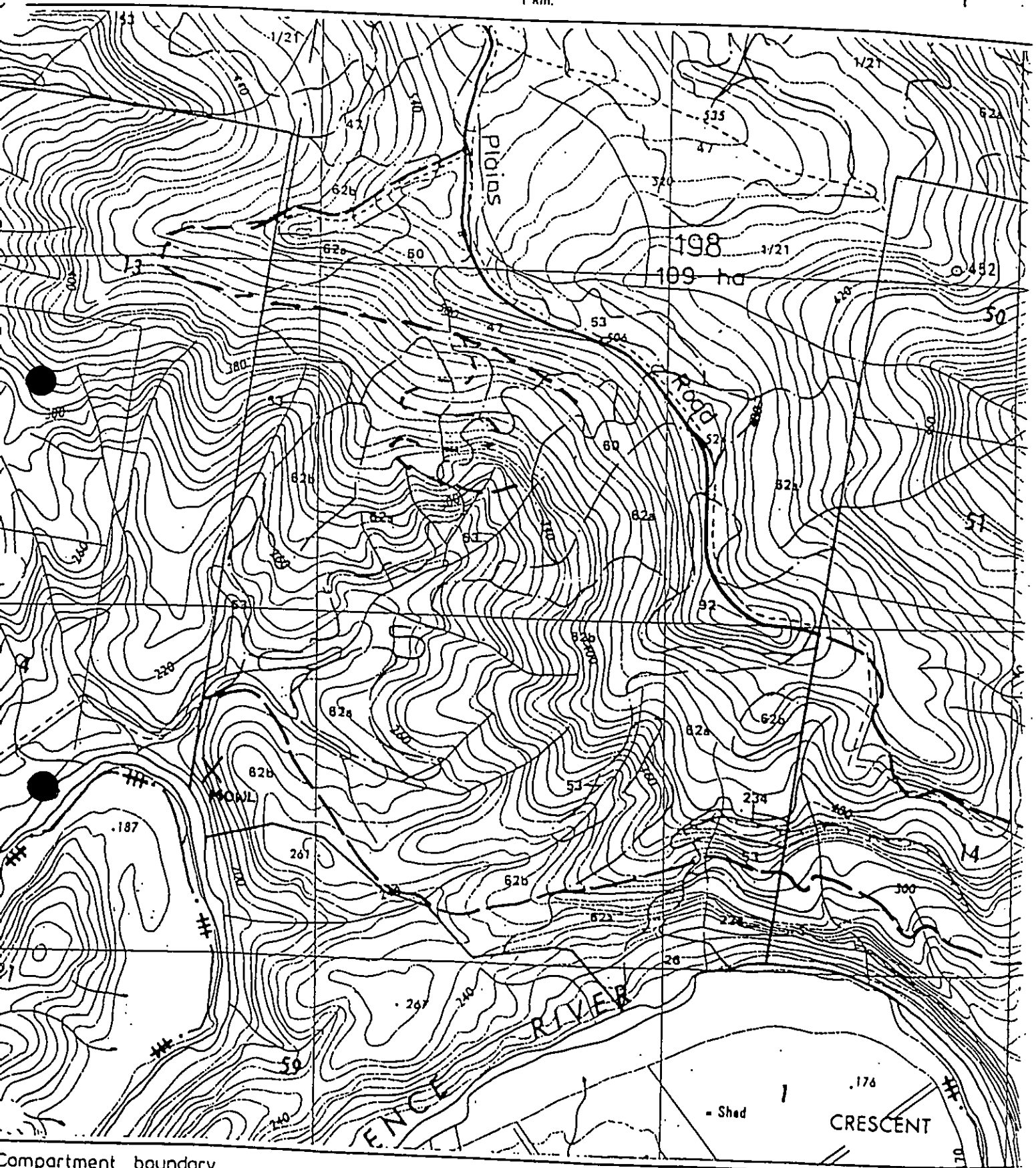
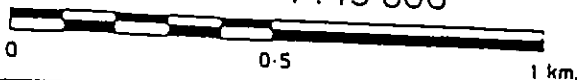
# Compartment 199

MAR 5  
1  
G N

Scale — 1:15 000

CU/394

Contour interval 10m



Compartment boundary

Filter strips

Protection strips

Roads, dump site

Wet weather dumps shown in red

Special emphasis

--- do logging roads.

# Compartment 196

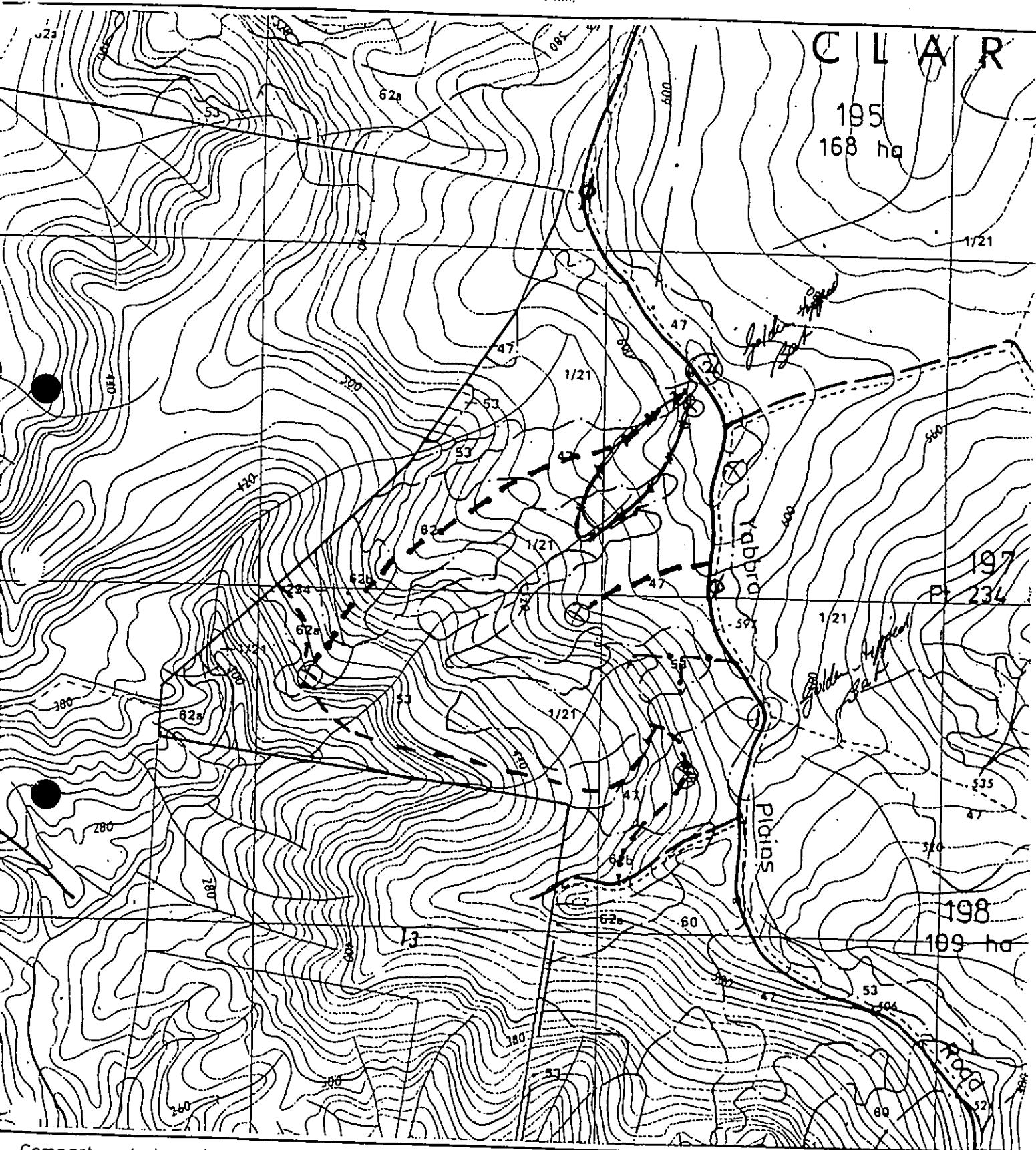
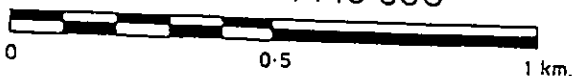
May 4

Scale — 1:15 000

CU/394

Contour interval 10m

G N



- Compartment boundary .....
- Filter strips .....
- Protection strips .....
- Roads, dump site .....
- Wet weather dumps shown in red .....
- Koala transect (1) Bat trap 1

Special emphasis .....

--- old logging roads

⊗ previous dump sites

② Bat trap No. 2

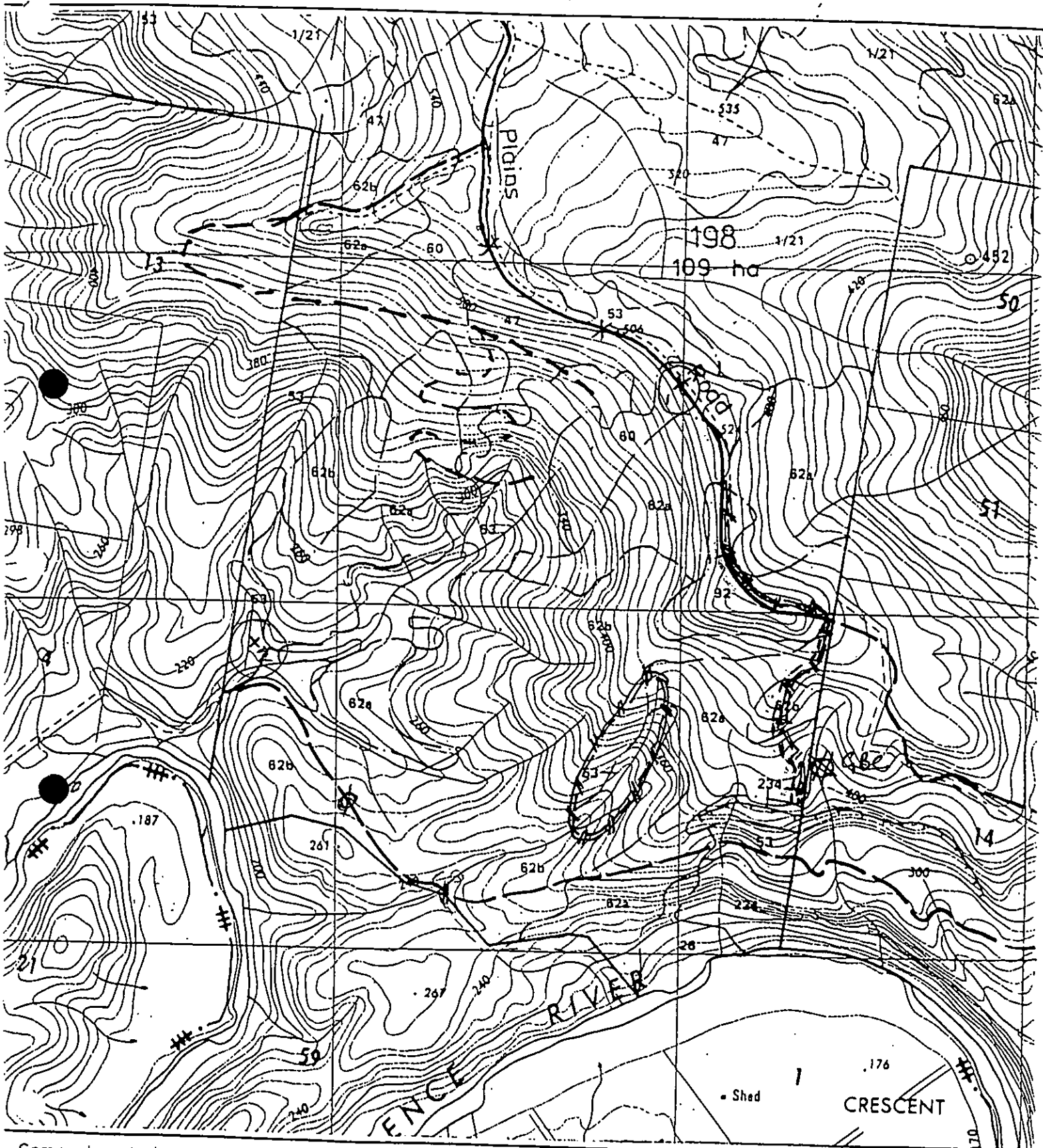
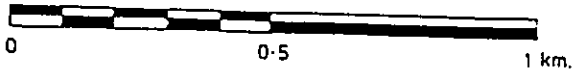
GN

CU / 394

Contour interval 10 m

ⓧ Best trap 1

⊗ Bat trap 2



Compartment boundary

Filter strips

### Protection strips

Roads, dump site

Wet weather dumps shown in red

1. (X) Bat trap 1      2. (X) Bat trap 2

Special emphasis

~~⑧~~ Glossy Black Cockatoo

-- did logging roads.

Spotlight transect

Koala transect



## CALL PLAYBACK - NORTHERN RIVERS REGION

[illegible]





# CALL PLAYBACK - NORTHERN RIVERS REGION

STATE FOREST <b>YABBRA</b>		M.A. <b>URBENVILLE</b>		COMPT. <b>196</b>													
OBSERVER(S) <b>M. CROWLEY</b> <b>K. MCCRAY</b>		DATE FROM <b>12/3/98</b> DATE TO <b>12/3/98</b>		REGION <b>NRR</b> CODE <b>461</b>													
SURVEY NAME		Part of Spotlight Transect? YES / NO specify...															
DETECTION METHOD(S)		<input checked="" type="checkbox"/> arboreal mammals <input checked="" type="checkbox"/> nocturnal birds <input type="checkbox"/> diurnal birds <input type="checkbox"/> other															
Species Targeted		<b>POWL MOWL YBG MFRO</b> Calls Played															
CENSUS 1		Start Time: <b>8:30</b> Finish Time: <b>9:15</b> Total Travel Time <b>0.45</b>															
SITE(S) - AMG Site.....		Easting <b>4 49 300</b>		Site..... Easting													
COORDINATES Zone		Northing <b>68 24 100</b>		Zone Northing													
BROAD HABITAT TYPE (1 only)		<table border="0"> <tr> <td>Rainforest</td> <td>Sclerophyll</td> <td>Woodland</td> </tr> <tr> <td>Subtropical <input type="checkbox"/></td> <td>Wet Sclerophyll <input checked="" type="checkbox"/></td> <td>Shrub Woodland <input type="checkbox"/></td> </tr> <tr> <td>Dry <input type="checkbox"/></td> <td>Dry Sclerophyll <input type="checkbox"/></td> <td>Heath Woodland <input type="checkbox"/></td> </tr> <tr> <td>Temperate <input type="checkbox"/></td> <td>Swamp Sclerophyll <input type="checkbox"/></td> <td>Tall Woodland <input type="checkbox"/></td> </tr> </table>				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"/>
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)		<b>47</b>															
LOCATION DESCRIPTION <b>YABBRA PLAINS RD, 1 km S OF N. END CPT 196, A.S.</b> <b>FOR PREVIOUS SURVEY (7/97) SITE</b>																	
WEATHER		Temperature <b>19.5/17.5°C</b> Relative Humidity <b>82%</b> Time <b>8:20 am 16pm</b>															
Wind (1 only for all)		<input checked="" type="checkbox"/> calm <input type="checkbox"/> light - leaves rustle <input type="checkbox"/> moderate - moves branches <input type="checkbox"/> strong - impedes progress															
Rain		<input type="checkbox"/> rain during survey <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"/> dark - quarter moon or moon with heavy cloud <input checked="" type="checkbox"/> detail seen - moon and clear sky <input type="checkbox"/> bright - half moon or more and no cloud															
OBSERVATION DETAILS																	
DATE	SITE NO.	SPECIES	OBS. TYPE	COUNT	RESPONSE (ESTIMATE) DISTANCE    BEARING	NOTES (appearance, sex, note if count an estimate, AMG of S1 or S2)											
12/3/98		SOUTHERN BOOBIE	H	1	50 (+)    315°	CALLING ON ARRIVAL											
"		GREATER GLIDER	S	1	20 (+)    135°	SPOTLIGHTED AFTER PLAYBACK											
					(+)												
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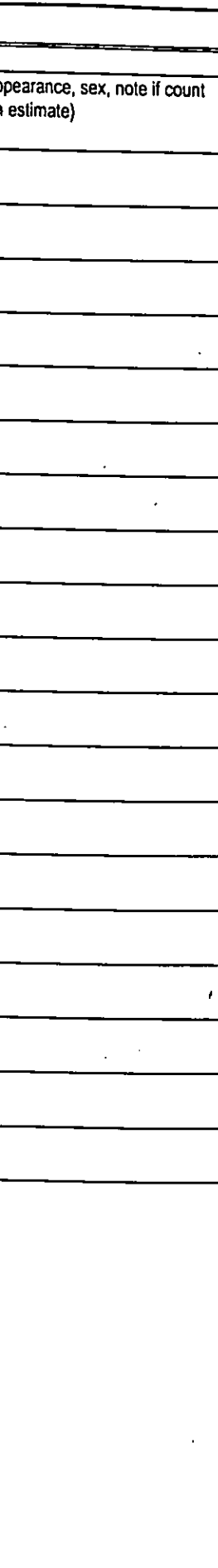
PAGE \_\_\_\_ of \_\_\_\_ . SKETCH MAP OVERLEAF? YES / NO

CALL PLAYBACK

OBSERVER(S)						DATE	
OBSERVATION DETAILS							
DATE	SITE NO.	SPECIES	OBS. TYPE	COUNT	RESPONSE (ESTIMATE)		NOTES (appearance, sex, note if count an estimate)
					DISTANCE	BEARING	
					(+/-)		
					(+/-)		
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					(+/-)		
					(+/-)		
					(+/-)		

SKETCH MAP (INCLUDE DRAINAGE, ROADS AND TRACKS, DISTANCES, BEARINGS)

NORTH  
[ TOP ]





# SPOTLIGHT TRANSECT - NORTHERN RIVERS REGION

STATE FOREST	YABBA		M.A. URGENVILLE	COMPT.	199	
OBSERVER(S)	M. CROWLEY K. MCCRAY		DATE FROM 12/3/98 DATE TO 13/3/98	REGION	NRR	
SURVEY NAME			NUMBER OF TRANSECTS	1 TRANSECT - 2 NIGHTS SURVEY		
DETECTION METHOD(S)	<input checked="" type="checkbox"/> vehicular transect <input checked="" type="checkbox"/> foot transect		Transect No(s) 2 Transect No(s) 1			
BROAD HABITAT TYPE	Rainforest <input type="checkbox"/> Subtropical <input type="checkbox"/> Dry <input type="checkbox"/> Temperate		Sclerophyll <input type="checkbox"/> Wet Sclerophyll <input checked="" type="checkbox"/> Dry Sclerophyll <input type="checkbox"/> Swamp Sclerophyll		Woodland <input type="checkbox"/> Shrub Woodland <input type="checkbox"/> Heath Woodland <input type="checkbox"/> Tall Woodland	
FOREST TYPE NUMBER(S)			92 + 62			
CENSUS 1 - TRANSECT 1	Location Description IN S. SECTION CPT 199 - FROM RIDGE IN					
Total Distance	1100m		F.T. 92 PAST GATE ALONG E B/RAY			
Species Targeted						
TIME	Start Time 10:00 p		Finish Time 11:10 p		Total Travel Time 1:10 p	
AMG	Start		Finish		Easting	
COORDINATES	Northing				Northing	
WEATHER	Temperature 19.5/17.5°C		Relative Humidity 82%		Time 8.20 am (pm)	
Wind	<input checked="" type="checkbox"/> calm <input type="checkbox"/> light - leaves rustle		<input type="checkbox"/> moderate - moves branches <input type="checkbox"/> strong - impedes progress			
Rain	<input type="checkbox"/> rain during survey <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"/> dark - quarter moon or moon with heavy cloud		<input checked="" type="checkbox"/> detail seen - moon and clear sky <input type="checkbox"/> bright - half moon or more and no cloud			
CENSUS 2 - TRANSECT 2	Location Description AS ABOVE					
Total Distance	1100m					
Species Targeted						
TIME	Start Time 10:10 p		Finish Time 11:10 p		Total Travel Time 1:00	
AMG	Start		Finish		Easting	
COORDINATES	Northing				Northing	
WEATHER	Temperature 20.5°C		Relative Humidity 66%		Time 9.00 am (pm)	
Wind	<input checked="" type="checkbox"/> calm <input type="checkbox"/> light - leaves rustle		<input type="checkbox"/> moderate - moves branches <input type="checkbox"/> strong - impedes progress			
Rain	<input type="checkbox"/> rain during survey <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"/> dark - quarter moon or moon with heavy cloud		<input checked="" type="checkbox"/> detail seen - moon and clear sky <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)
550m	1	GREATER GLIDER	S	25m	1	IN GREY GUM 25m UP R.H.S
600m	1	GREATER GLIDER	S	15m	1	IN SPOTTED GUM 10m UP LHS

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





# CALL PLAYBACK - NORTHERN RIVERS REGION

STATE FOREST	YABBRA	M.A.	GREENVILLE	COMPT.	199	
OBSERVER(S)	M. CROWLEY K. MCCRAY	DATE FROM	13/3/99	REGION	NRR	
		DATE TO	13/3/98	CODE	461	
SURVEY NAME	Part of Spotlight Transect? YES / NO 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	Calls Played					
CENSUS 1	Start Time: 8:00	Finish Time: 9:00	Total Travel Time 1:00			
SITE(S) - AMG Site.....	Easting 449 000	Site.....	Easting			
COORDINATES Zone	Northing 68 21 400	Zone	Northing			
BROAD HABITAT TYPE (1 only)	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)	47					
LOCATION DESCRIPTION	550~ E S.F. SKY (DOUBLE PINK TAPE) AS FOR PREVIOUS SURVEY (7/97)					
WEATHER	Temperature 20.5°C	Relative Humidity 66%	Time 9:00 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 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) DISTANCE BEARING	NOTES (appearance, sex, note if count an estimate, AMG of S1 or S2)
13/3/99		MASKED OWL	H	1	300 (+/-) 50m 280°	RESPONSE TO FIRST CALL
"		MASKED OWL	H	1	150 (+/-) 50m 6°	FIVE MINUTES AFTER FIRST RESPONSE
"		WHITE THROATED NIGHTJAR	H	1	500 (+/-) 300°	
"		WHITE THROATED NIGHTJAR	H	1	200 (+/-) 80°	
					(+/-)	
					(+/-)	
					(+/-)	
					(+/-)	
					(+/-)	
					(+/-)	
					(+/-)	
					(+/-)	

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

CALL PLAYBACK

[illegible]





# SPOTLIGHT TRANSECT - NORTHERN RIVERS REGION

STATE FOREST <b>TABBARA</b>		M.A. <b>URBENVILLE</b>		COMPT. <b>199</b>		
OBSERVER(S) <b>M. CROWLEY</b> <b>K. MCLRAY</b>		DATE FROM <b>13/3/98</b> DATE TO <b>13/3/98</b>		REGION <b>NRR</b> CODE <b>461</b>		
SURVEY NAME		NUMBER OF TRANSECTS				
DETECTION METHOD(S)		<input checked="" type="checkbox"/> vehicular transect <input type="checkbox"/> foot transect				
		Transect No(s) ..... Transect No(s) .....				
BROAD HABITAT TYPE		<input type="checkbox"/> Rainforest <input type="checkbox"/> Subtropical <input type="checkbox"/> Dry <input type="checkbox"/> Temperate				
		<input type="checkbox"/> Sclerophyll <input type="checkbox"/> Wet Sclerophyll <input checked="" type="checkbox"/> Dry Sclerophyll <input type="checkbox"/> Swamp Sclerophyll				
		<input type="checkbox"/> Woodland <input type="checkbox"/> Shrub Woodland <input type="checkbox"/> Heath Woodland <input type="checkbox"/> Tall Woodland				
FOREST TYPE NUMBER(S)		<b>62</b>				
<b>CENSUS 1 - TRANSECT 1</b>		Location Description <b>LOWER PORTION OF CAT 199 ON UNNAMED TRAIL - AS FOR PREVIOUS TRANSECT 17/7/97 (BOTTOM NEAR SOUTHERN B/ARY)</b>				
Total Distance						
Species Targeted						
TIME		Start Time <b>9:00</b>		Finish Time <b>10:00</b>		
AMG		Easting <b>4 49 000</b>		Finish Easting <b>4 49 800</b>		
COORDINATES		Northing <b>68 21 400</b>		Northing <b>68 21 200</b>		
WEATHER		Temperature <b>20.5°C</b>		Relative Humidity <b>66%</b>		
Wind		<input checked="" type="checkbox"/> calm <input type="checkbox"/> light - leaves rustle		<input type="checkbox"/> moderate - moves branches <input type="checkbox"/> strong - impedes progress		
Rain		<input type="checkbox"/> rain during survey <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"/> dark - quarter moon or moon with heavy cloud		<input checked="" type="checkbox"/> detail seen - moon and clear sky <input type="checkbox"/> bright - half moon or more and no cloud		
<b>CENSUS 2 - TRANSECT 2</b>		Location Description				
Total Distance						
Species Targeted						
TIME		Start Time		Finish Time		
AMG		Easting		Finish Easting		
COORDINATES		Northing		Northing		
WEATHER		Temperature		Relative Humidity		
Wind		<input type="checkbox"/> calm <input type="checkbox"/> light - leaves rustle		<input type="checkbox"/> moderate - moves branches <input type="checkbox"/> strong - impedes progress		
Rain		<input type="checkbox"/> rain during survey <input 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"/> 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		
<b>OBSERVATIONS</b>						
DIST.	TRANS. NO.	SPECIES	OBS. TYPE	DIST. from TRANS	Count	NOTES (AMGs for S1&S2 spp, note if count is an estimate)
<b>0</b>		<b>M. fasciolatus</b>	<b>S-C</b>	<b>0</b>	<b>1</b>	<b>CAPTURED - ID</b>
<b>900</b>		<b>L. Peronii</b>	<b>S-C</b>	<b>0</b>	<b>1</b>	<b>CAPTURED - ID</b>

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

[illegible]



# BAT SURVEY- NORTHERN RIVERS REGION

STATE FOREST <u>YABBARA</u>		M.A. <u>URBENVILLE</u>		COMPT. <u>199</u>				
OBSERVER(S) <u>M. CROWLEY</u> <u>K. MCCRAY</u>		DATE FROM <u>12/3/98</u> DATE TO <u>14/3/98</u>		REGION <u>NRR</u> CODE <u>461</u>				
SURVEY NAME		NO. OF CENSUS NIGHTS <u>1</u> ( <u>MOVED TO BETEE SITE 3</u> )						
DETECTION METHOD(S)	<input checked="" type="checkbox"/> harp trap		<input type="checkbox"/> trip lines		<input type="checkbox"/> observed			
	<input type="checkbox"/> bat sonar		<input type="checkbox"/> mist net		<input type="checkbox"/> other .....			
AMG	Easting		SPECIES TARGETED					
COORDINATES	Northing							
BROAD HABITAT TYPE	Rainforest		Sclerophyll		Woodland			
	<input type="checkbox"/> Subtropical		<input checked="" type="checkbox"/> Wet Sclerophyll		<input 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			
FOREST TYPE NUMBER(S)		<u>47</u>						
LOCATION DESCRIPTION <u>300m S CPT 199 BARY IN FLYING - OVERHANGING VEG.</u> <u>SITE 1</u>								
WEATHER (census = 1 night)		Census 1	Census 2	Census 3	Census 4	Census 5	Census 6	Census 7
Date		<u>12/3/98</u>	<u>13/3/98</u>					
Temperature		<u>19.5°C</u>	<u>20.5°C</u>					
Relative Humidity		<u>82%</u>	<u>66%</u>					
Time Measurements Taken		<u>8:20p</u>	<u>9:00p</u>					
Wind [(1) calm (2) light (3) moderate (4) strong]		<u>1</u>	<u>1</u>					
Rain [(1) during survey (2) evidence of in last 24 hrs (3) no evidence of in last 24 hrs]		<u>3</u>	<u>3</u>					
Night light [(1) very dark (2) dark (3) detail seen (4) bright]		<u>3</u>	<u>3</u>					
CAPTURE / SAMPLE DETAILS								
DATE	SPECIES	Sex	Weight (gms)	F-arm Length	Field No.	Compulsory notes (age, breeding, appearance)		
<u>13/3/98</u>	<u>R. megaphyllus</u>	<u>F</u>	<u>10.75</u>	<u>49.3</u>				
<u>"</u>	<u>V.</u>	<u>M</u>	<u>4.75</u>	<u>30.2</u>				
<u>"</u>	<u>V.</u>	<u>M</u>	<u>3.75</u>	<u>30.7</u>				
<u>"</u>	<u>V.</u>	<u>F</u>	<u>4.50</u>	<u>30.4</u>				

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

[illegible]



# BAT SURVEY- NORTHERN RIVERS REGION

STATE FOREST	YABBA		M.A.	URBENVILLE		COMPT.	199	
OBSERVER(S)	M. CROWLEY K. MCCRAY		DATE FROM	12/3/98		REGION	NRR	
			DATE TO	14/3/98		CODE	461	
SURVEY NAME			NO. OF CENSUS NIGHTS	2				
DETECTION METHOD(S)	<input checked="" type="checkbox"/> harp trap <input type="checkbox"/> trip lines <input type="checkbox"/> observed <input type="checkbox"/> bat sonar <input type="checkbox"/> mist net <input type="checkbox"/> other .....							
AMG	Easting		SPECIES TARGETED					
COORDINATES	Northing							
BROAD HABITAT TYPE	Rainforest <input type="checkbox"/> Subtropical <input type="checkbox"/> Dry <input type="checkbox"/> Temperate		Sclerophyll <input checked="" type="checkbox"/> Wet Sclerophyll <input type="checkbox"/> Dry Sclerophyll <input type="checkbox"/> Swamp Sclerophyll		Woodland <input type="checkbox"/> Shrub Woodland <input type="checkbox"/> Heath Woodland <input type="checkbox"/> Tall Woodland			
FOREST TYPE NUMBER(S)			47					
LOCATION DESCRIPTION	800m S CPT 199 B/ARY IN FL1WAY - DEAD TREE + LIVE NATIVE SITE 2 RESTRICTING							
WEATHER (census = 1 night)	Census 1	Census 2	Census 3	Census 4	Census 5	Census 6	Census 7	
Date	12/3/98	13/3/98						
Temperature	19.5°C	20.5°C						
Relative Humidity	82%	66%						
Time Measurements Taken	8:20p	9:00p						
Wind ((1) calm (2) light (3) moderate (4) strong)	1	1						
Rain ((1) during survey (2) evidence of in last 24 hrs (3) no evidence of in last 24 hrs)	3	3						
Night light ((1) very dark (2) dark (3) detail seen (4) bright)	3	3						
CAPTURE / SAMPLE DETAILS								
DATE	SPECIES	Sex	Weight (gms)	F-arm Length	Field No.	Compulsory notes (age, breeding, appearance)		
13/3/98	R. megaphyllus	F	9.75	48.4		N.L.		
"	V. sp.	F	4.25	31.8		N.L.		
"	S. orion	M	10.0	36.3				
"	V. sp.	F	4.25	31.5		N.L.		
"	N. gouldii	M	8.0	40.4				
14/3/98	NIL CAPTURES							

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





# BAT SURVEY- NORTHERN RIVERS REGION

STATE FOREST <b>YABBRA</b>		M.A. <b>URBENVILLE</b>		COMPT. <b>199</b>				
OBSERVER(S) <b>M. CROWLEY K. MCCRAY</b>		DATE FROM <b>13/3/98</b> DATE TO <b>14/3/98</b>		REGION <b>NRR</b> CODE <b>461</b>				
SURVEY NAME		NO. OF CENSUS NIGHTS <b>1</b>						
DETECTION METHOD(S)		<input checked="" type="checkbox"/> harp trap <input type="checkbox"/> trip lines <input type="checkbox"/> observed <input type="checkbox"/> bat sonar <input type="checkbox"/> mist net <input type="checkbox"/> other .....						
AMG	Easting	SPECIES TARGETED						
COORDINATES	Northing							
BROAD HABITAT TYPE		Rainforest      Sclerophyll      Woodland <input type="checkbox"/> Subtropical <input checked="" type="checkbox"/> Wet Sclerophyll <input 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						
FOREST TYPE NUMBER(S)		<b>53</b>						
LOCATION DESCRIPTION <b>IN GULLY APPROX. 40m UPSTREAM FROM ROAD CROSSING SITE 3</b>								
WEATHER (census = 1 night)		Census 1	Census 2	Census 3	Census 4	Census 5	Census 6	Census 7
Date		<b>13/3/98</b>	<b>14/3/98</b>					
Temperature		<b>20.5°C</b>						
Relative Humidity		<b>66%</b>						
Time Measurements Taken		<b>9:00p</b>						
Wind [(1) calm (2) light (3) moderate (4) strong]		<b>1</b>						
Rain [(1) during survey (2) evidence of in last 24 hrs (3) no evidence of in last 24 hrs]		<b>3</b>						
Night light [(1) very dark (2) dark (3) detail seen (4) bright]		<b>3</b>						
CAPTURE / SAMPLE DETAILS								
DATE	SPECIES	Sex	Weight (gms)	F-arm Length	Field No.	Compulsory notes (age, breeding, appearance)		
<b>14/3/98</b>	<b>V. sp. (PROBABLE PUMILUS)</b>	<b>F</b>	<b>4.25</b>	<b>32.0</b>		<b>N.L.</b>		
<b>"</b>	<b>V. sp. (PROBABLE PUMILUS)</b>	<b>F</b>	<b>3.75</b>	<b>30.8</b>		<b>N.L.</b>		
<b>"</b>	<b>V. Pumilus</b>	<b>M</b>	<b>3.25</b>	<b>30.7</b>				
<b>"</b>	<b>V. Pumilus</b>	<b>M</b>	<b>3.25</b>	<b>29.6</b>				
<b>"</b>	<b>R. megaphyllus</b>	<b>F</b>	<b>9.50</b>	<b>48.5</b>		<b>N.L.</b>		
<b>"</b>	<b>C morio</b>	<b>M</b>	<b>8.75</b>	<b>39.7</b>				

PAGE 1 of 1 . SKETCH MAP OVERLEAF? YES / **NO** SHOWN ON EFFORT MAP

[illegible]



265°W - 273m  
1650SE - 83 - 155m  
NO. of  
A SURVEY  
M 1KM PER 100HA

130-100  
collected  
NWT

TRAVERSE SURVEY (CONTINUED) NO. _____ OF _____						KOALA SURVEY (CONTINUED)			
OBSERVER(S) _____		DATE _____				5 TREES PER 50 M    1KM PER 100HA			
THREATENED FLORA - OBSERVATIONS							TREE SPECIES	DBH (approx)	SCATS or OTHER
SPECIES SEARCHED FOR _____									
TRANSECT DISTANCE	FLORA SPECIES	NUMBER	AREA SIZE	SITE DESCRIPTION & SITE DISTURBANCE (?)	MAP/AMG NOTED?	51			
						52			
						53			
						54			
						55			550 M
						56			
						57			
						58			
						59			
						60			600 M
						61			
						62			
						63			
						64			
						65			
						66			
THREATENED FAUNA - SIGHTING OR FEATURE#						67			
DISTANCE	SPECIES/FEATURE TYPE	NUMBER	SITE (MICROHABITAT)		MAP/AMG?	68			
						69			
						70			700 M
						71			
						72			
						73			
						74			
						75			
						76			
						77			
						78			
						79			
						80			800 M
						81			
						82			
						83			
						84			
GENERAL COMMENTS* & ARCHAEOLOGICAL ARTEFACTS						85			
*RECORD FEATURES: EG. UNMAPPED CHANGE IN STRATA OR FOREST TYPE, ROCKY OUTCROPS ETC.						86			
TRANSECT DISTANCE	OBSERVATION OF .....				MAP/AMG NOTED?	87			
						88			
						89			
						90			900 M
						91			
						92			
						93			
						94			
						95			
						96			
						97			
						98			
						99			
						100			1000 M

LAST SHEET YES <input checked="" type="checkbox"/>	TRAVERSE FINISH	EASTING	KOALA FINISH	EASTING
TOTAL TIME 140	AMG CO-ORDINATES	NORTHING	CO-ORDINATES	NORTHING
				449800
				6825800

285° NW x 150, 360° x 50—  
ON. NO. of

$$2.5 \times 10^2 + 50 \times 10^2 \times 150, 3 \times 10^2$$

LAST SHEET? <u>YES</u> / NO	TRAVERSE FINISH	EASTING	KOALA FINISH	EASTING	449000
TOTAL TIME <u>100 min</u>	AMG CO-ORDINATES	NORTHING	CO-ORDINATES	NORTHING	682500

## AMPHIBIAN SAMPLE REGION

STATE FOREST		Yalgora		M.A. URBENVILLE		COMPT. 199	
OBSERVER(S)		Jim Reside		DATE 19 Mar 1998		REGION CODE NNR 461	
SURVEY NAME						NO. OF PLAYBACK SITES	
DETECTION METHOD(S)		<input type="checkbox"/> call playback <input checked="" type="checkbox"/> spotlight - foot transect <input type="checkbox"/> other <input type="checkbox"/> spotlight - vehicular transect <input type="checkbox"/> spotlight - foot search					
BROAD FOREST TYPE - [one choice only]		Rainforest <input type="checkbox"/> Subtropical <input type="checkbox"/> Dry <input type="checkbox"/> Temperate Sclerophyll <input checked="" type="checkbox"/> Wet Sclerophyll <input type="checkbox"/> Dry Sclerophyll <input type="checkbox"/> Swamp Sclerophyll.. Woodland <input type="checkbox"/> Shrub Woodland <input type="checkbox"/> Heath Woodland <input type="checkbox"/> Tall Woodland.					
CENSUS		Start Time: 2000hr		Finish Time: 2230hr		Total Travel Time 150min	
Species Targeted						Calls Played	
SITE(S) - AMG Zone		Easting 448300		(If transect		Easting 448100	
COORDINATES		Northing 6825400		record finish)		Northing 6826400	
LOCATION DESCRIPTION		From camp in compartment 199 up hill along track to Yalgora Plains Rd					
Nearest known water body		<input type="checkbox"/> Lake <input type="checkbox"/> Swamp <input type="checkbox"/> Soak / Seepage					
Distance to [in metres] 1000		<input type="checkbox"/> Pond <input type="checkbox"/> River <input checked="" type="checkbox"/> Road					
		<input type="checkbox"/> Dam <input type="checkbox"/> Stream/Creek [flowing? yes <input type="checkbox"/> / no <input <input="" ]]="" type="checkbox"/> Other					
WEATHER		Temperature 20°C		Relative Humidity 88%		Time 2025hr am (pm)	
Wind		<input type="checkbox"/> calm <input checked="" type="checkbox"/> light - leaves rustle <input type="checkbox"/> moderate - moves branches <input type="checkbox"/> strong - impedes progress					
Rain		<input type="checkbox"/> rain during survey <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 checked="" 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 overleaf ? PAGE 1 OF 1							
OBSERVATION DETAILS							
DATE	DIST	SPECIES	OBSERVATION TYPE - TALLY				NOTES
			HELD	OBSERVED	HEARD	TOTAL	
19	300	Myrmecodysdercus personi		5	5	5	Number approximate
19	300	Crinia signifera			2	2	
19	200	Litoria fallax		1		1	
19	300	Litoria latopalmata		1		1	
19	500	Uperoleia laevis			5	5	Number approximate
Mapped on Koola survey transect							

## AMPHIBIAN

## AMPHIBIAN SAMPLE REGION

[illegible]

## AMPHIBIAN

## AMPHIBIAN SAMPLE REGION

[illegible]

## AMPHIBIAN



# BAT SURVEY- NORTHERN RIVERS REGION

STATE FOREST <i>Yabbara</i>		M.A. <i>URBENVILLE</i>		COMPT. <i>196</i>				
OBSERVER(S) <i>Jim &amp; Jenni Resida</i>		DATE FROM <i>19 Mar 98</i> DATE TO <i>20 Mar 1998</i>		REGION CODE <i>NNR 461</i>				
SURVEY NAME		NO. OF CENSUS NIGHTS <i>1</i>						
DETECTION METHOD(S)		<input checked="" type="checkbox"/> harp trap <input type="checkbox"/> bat sonar <input type="checkbox"/> trip lines <input type="checkbox"/> mist net <input type="checkbox"/> observed <input type="checkbox"/> other .....						
AMG	Easting <i>449500</i>	SPECIES TARGETED						
COORDINATES	Northing <i>6825700</i>							
BROAD HABITAT TYPE		Rainforest <input checked="" type="checkbox"/> Subtropical <input type="checkbox"/> Dry <input type="checkbox"/> Temperate Sclerophyll <input checked="" type="checkbox"/> Wet Sclerophyll <input type="checkbox"/> Dry Sclerophyll <input type="checkbox"/> Swamp Sclerophyll Woodland <input type="checkbox"/> Shrub Woodland <input type="checkbox"/> Heath Woodland <input type="checkbox"/> Tall Woodland						
FOREST TYPE NUMBER(S) <i>47</i>								
LOCATION DESCRIPTION <i>Yabbara Plains Rd 600m South of north boundary of Compartment 196</i>								
WEATHER (census = 1 night)		Census 1	Census 2	Census 3	Census 4	Census 5	Census 6	Census 7
Date		<i>19 Mar 98</i>						
Temperature		<i>20°C</i>						
Relative Humidity		<i>88%</i>						
Time Measurements Taken		<i>2025 hrs</i>						
Wind [(1) calm (2) light (3) moderate (4) strong]		<i>3</i>						
Rain [(1) during survey (2) evidence of in last 24 hrs (3) no evidence of in last 24 hrs]		<i>2</i>						
Night light [(1) very dark (2) dark (3) detail seen (4) bright]		<i>2</i>						
CAPTURE / SAMPLE DETAILS								
DATE	SPECIES	Sex	Weight (gms)	F-arm Length	Field No.	Compulsory notes (age, breeding, appearance)		
<i>Mar 1998</i>								
<i>19</i>	<i>Xerivoula papuensis</i>	<i>F</i>	<i>6.5</i>	<i>36.6</i>		<i>N.I. breeding, Adult</i>		
<i>19</i>	<i>Chalinolobus morio</i>	<i>F</i>	<i>7.5</i>	<i>38.6</i>		<i>.. ..</i>		
<i>19</i>	<i>Vespadelus pumilus</i>	<i>F</i>	<i>4.5</i>	<i>33.5</i>		<i>.. ..</i>		
<i>19</i>	<i>.. ..</i>	<i>M</i>	<i>5.5</i>	<i>29.6</i>		<i>Adult, enlarged testes</i>		
<i>19</i>	<i>.. ..</i>	<i>F</i>	<i>4.5</i>	<i>31.1</i>		<i>.. , nil breeding</i>		
<i>19</i>	<i>.. ..</i>	<i>F</i>	<i>4.5</i>	<i>32.2</i>		<i>.. ..</i>		

PAGE *1* of *1*. SKETCH MAP OVERLEAF? YES / *NO* *See compartment map*





# BAT SURVEY- NORTHERN RIVERS REGION

STATE FOREST <u>Yabbara SF</u>		M.A. <u>WEBBVILLE</u>		COMPT. <u>196</u>				
OBSERVER(S) <u>Jim Reside, Jenni Reside</u>		DATE FROM <u>2 19.3.98</u> DATE TO <u>20.3.98</u>		REGION CODE <u>NNR 461</u>				
SURVEY NAME		NO. OF CENSUS NIGHTS <u>1</u>						
DETECTION METHOD(S)		<input checked="" type="checkbox"/> harp trap <input type="checkbox"/> bat sohar <input type="checkbox"/> trip lines <input type="checkbox"/> mist net <input type="checkbox"/> observed <input type="checkbox"/> other .....						
AMG COORDINATES		SPECIES TARGETED <u>Microchiroptera</u>						
Easting <u>448300</u> Northing <u>612600</u>								
BROAD HABITAT TYPE		Rainforest <input type="checkbox"/> Subtropical <input type="checkbox"/> Dry <input type="checkbox"/> Temperate Sclerophyll <input checked="" type="checkbox"/> Wet Sclerophyll <input type="checkbox"/> Dry Sclerophyll <input type="checkbox"/> Swamp Sclerophyll Woodland <input type="checkbox"/> Shrub Woodland <input type="checkbox"/> Heath Woodland <input type="checkbox"/> Tall Woodland						
FOREST TYPE NUMBER(S) <u>47</u>								
LOCATION DESCRIPTION <u>On Yabbara Plains road 300m north of south boundary of compartment 196</u>								
WEATHER (census = 1 night)		Census 1	Census 2	Census 3	Census 4	Census 5	Census 6	Census 7
Date		<u>19.3.98</u>						
Temperature		<u>20°C</u>						
Relative Humidity		<u>88%</u>						
Time Measurements Taken		<u>2025</u>						
Wind [(1) calm (2) light (3) moderate (4) strong]		<u>3</u>						
Rain [(1) during survey (2) evidence of in last 24 hrs (3) no evidence of in last 24 hrs]		<u>2</u>						
Night light [(1) very dark (2) dark (3) detail seen (4) bright]		<u>2</u>						
CAPTURE / SAMPLE DETAILS								
DATE	SPECIES	Sex	Weight (gms)	F-arm Length	Field No.	Compulsory notes (age, breeding, appearance)		
<u>19/3/98</u>	<u>Miniopterus australis</u>	<u>F</u>	<u>7.5</u>	<u>37.9</u>		<u>Adult non-breeding sel notes appear</u>		
<u>19/3/98</u>	<u>Keivoula papuensis</u>	<u>F</u>	<u>11.5</u>	<u>37.2</u>		<u>Adult non-breeding break Terminal digit wing</u>		
<u>19/3/98</u>	<u>Chalinolobus morio</u>	<u>M</u>	<u>7.5</u>	<u>38.3</u>		<u>Adult minor testes enlargement</u>		
<u>19/3/98</u>	<u>Nyctophilus gouldi</u>	<u>M</u>	<u>8.5</u>	<u>40.85</u>		<u>Adult enlarged testes</u>		
<u>19/3/98</u>	<u>Nyctophilus gouldi</u>	<u>M</u>	<u>9.0</u>	<u>42.1</u>		<u>Adult minor testes enlargement</u>		
<u>19/3/98</u>	<u>Nyctophilus gouldi</u>	<u>M</u>	<u>8.0</u>	<u>40.6</u>		<u>Adult minor testes enlargement</u>		
<u>19/3/98</u>	<u>Nyctophilus gouldi</u>	<u>M</u>	<u>8.0</u>	<u>42</u>		<u>Adult major testes enlargement</u>		
<u>19/3/98</u>	<u>Nyctophilus gouldi</u>	<u>F</u>	<u>9.5</u>	<u>43.4</u>		<u>Adult nil breeding</u>		
<u>19/3/98</u>	<u>Nyctophilus gouldi</u>	<u>F</u>	<u>8.5</u>	<u>43.5</u>		<u>Adult nil breeding</u>		

PAGE 1 of 2 . SKETCH MAP OVERLEAF? YES / (NO) → See compartment map





# BAT SURVEY- NORTHERN RIVERS REGION

SUPPLEMENTARY

STATE FOREST <b>Yabbra SF</b>		M.A. <b>URBENVILLE</b>		COMPT. <b>199</b>				
OBSERVER(S) <b>JIM &amp; JENNI RESIDE</b>		DATE FROM <b>18.3.98</b> DATE TO <b>19.3.98</b>		REGION CODE <b>NMR 461</b>				
SURVEY NAME		NO. OF CENSUS NIGHTS <b>1</b>						
DETECTION METHOD(S)		<input checked="" type="checkbox"/> harp trap <input type="checkbox"/> trip lines <input type="checkbox"/> observed <input type="checkbox"/> bat sonar <input type="checkbox"/> mist net <input type="checkbox"/> other .....						
AMG	Easting <b>449 000</b>	SPECIES TARGETED						
COORDINATES	Northing <b>6125600</b>	<b>Microchiroptera</b>						
BROAD HABITAT TYPE		Sclerophyll Woodland						
<input type="checkbox"/> Subtropical <input type="checkbox"/> Dry <input type="checkbox"/> Temperate		<input checked="" type="checkbox"/> Wet Sclerophyll <input type="checkbox"/> Dry Sclerophyll <input type="checkbox"/> Swamp Sclerophyll <input type="checkbox"/> Shrub Woodland <input type="checkbox"/> Heath Woodland <input type="checkbox"/> Tall Woodland						
FOREST TYPE NUMBER(S) <b>53</b>								
LOCATION DESCRIPTION <b>South-western corner of compartment 199 on forest track</b>								
WEATHER (census = 1 night)		Census 1	Census 2	Census 3	Census 4	Census 5	Census 6	Census 7
Date		<b>18.3.98</b>						
Temperature		<b>25°C</b>						
Relative Humidity		<b>70%</b>						
Time Measurements Taken		<b>2030</b>						
Wind [(1) calm (2) light (3) moderate (4) strong]		<b>1</b>						
Rain [(1) during survey (2) evidence of in last 24 hrs (3) no evidence of in last 24 hrs]		<b>1</b>						
Night light [(1) very dark (2) dark (3) detail seen (4) bright]		<b>1</b>						
CAPTURE / SAMPLE DETAILS								
DATE	SPECIES	Sex	Weight (gms)	F-arm Length	Field No.	Compulsory notes (age, breeding, appearance)		
<b>18.3.98</b>	<b>V. Vulturinus</b>	<b>M</b>	<b>4gms</b>	<b>31mm</b>		<b>Adult Breeding enlarged testes</b>		

PAGE **1** of **1** SKETCH MAP OVERLEAF? YES / **(NO)** → see compartment map.

BAT



# BAT SURVEY- NORTHERN RIVERS REGION

SUPPLEMENTARY

STATE FOREST <u>Yabbara SF</u>		M.A. <u>URBENVILLE</u>		COMPT. <u>199</u>				
OBSERVER(S) <u>JIM + JENNY RESIDE</u>		DATE FROM <u>18.3.98</u> DATE TO <u>19.3.98</u>		REGION CODE <u>NNR 461</u>				
SURVEY NAME		NO. OF CENSUS NIGHTS <u>1</u>						
DETECTION METHOD(S)		<input checked="" type="checkbox"/> harp trap <input type="checkbox"/> bat sonar <input type="checkbox"/> trip lines <input type="checkbox"/> mist net <input type="checkbox"/> observed <input type="checkbox"/> other .....						
AMG		SPECIES TARGETED						
COORDINATES		Easting <u>447800</u> Northing <u>612590</u>						
BROAD HABITAT TYPE		Rainforest <input type="checkbox"/> Subtropical <input type="checkbox"/> Dry <input type="checkbox"/> Temperate Sclerophyll <input checked="" type="checkbox"/> Wet Sclerophyll <input type="checkbox"/> Dry Sclerophyll <input type="checkbox"/> Swamp Sclerophyll Woodland <input type="checkbox"/> Shrub Woodland <input type="checkbox"/> Heath Woodland <input type="checkbox"/> Tall Woodland						
FOREST TYPE NUMBER(S) <u>53</u>								
LOCATION DESCRIPTION <u>900m NW of SF boundary with freehold along Yabbara Plains Road</u>								
WEATHER (census = 1 night)		Census 1	Census 2	Census 3	Census 4	Census 5	Census 6	Census 7
Date		<u>18.3.98</u>						
Temperature		<u>25°C</u>						
Relative Humidity		<u>70%</u>						
Time Measurements Taken		<u>2030</u>						
Wind [(1) calm (2) light (3) moderate (4) strong]		<u>1</u>						
Rain [(1) during survey (2) evidence of in last 24 hrs (3) no evidence of in last 24 hrs]		<u>1</u>						
Night light [(1) very dark (2) dark (3) detail seen (4) bright]		<u>1</u>						
CAPTURE / SAMPLE DETAILS								
DATE	SPECIES	Sex	Weight (gms)	F-arm Length	Field No.	Compulsory notes (age, breeding, appearance)		
	<u>ZERO (NO BATS IN THIS TRAP)</u>							

PAGE 1 of 1. SKETCH MAP OVERLEAF? YES / (NO) → see compartment map.



# SPOTLIGHT TRANSECT - ~~SAMPLE~~ REGION

SUPPLEMENTAL

OBSERVER(S) <i>J. Reside</i>		START DATE <i>2000 hrs</i>	REGION CODE <i>NNR #61</i>			
STATE FOREST <i>Jabbara</i>		FINISH DATE <i>2230 hrs</i>	COMPT. <i>199</i>			
SURVEY NAME		TIME Start <i>1500 hrs total</i>	Finish <i>am / pm</i>	am / pm		
DETECTION METHOD(S)		NUMBER OF TRANSECTS				
<input type="checkbox"/> spotlight - vehicular transect		Transect No(s) . . . . .				
<input checked="" type="checkbox"/> spotlight - foot transect		Transect No(s) . . . . .				
BROAD FOREST TYPE		Woodland				
<input type="checkbox"/> Subtropical		<input checked="" type="checkbox"/> Wet Sclerophyll				
<input type="checkbox"/> Dry		<input type="checkbox"/> Dry Sclerophyll				
<input type="checkbox"/> Temperate		<input type="checkbox"/> Swamp Sclerophyll				
FOREST TYPE NUMBER(S)		<input type="checkbox"/> Shrub Woodland				
Location Description		<input type="checkbox"/> Heath Woodland				
Location Description		<input type="checkbox"/> Tall Woodland				
TRANSECT 1		Location Description <i>From camp in Compartment 199 up hill along track to Jabbara Plains Rd.</i>				
Total Distance						
Species Targeted						
AMG	Start	Easting <i>448300</i>	Finish	Easting <i>448100</i>		
COORDINATES		Northing <i>6825400</i>		Northing <i>6826400</i>		
WEATHER	Temperature <i>20°C</i>	Time <i>2025 hrs</i>	am / pm <i>Rel Humid. 98%</i>			
Wind	<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 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 clear sky				
	<input type="checkbox"/> dark - quarter moon or moon with heavy cloud	<input type="checkbox"/> bright - half moon or more and no cloud				
TRANSECT 2		Location Description				
Total Distance						
Species Targeted						
AMG	Start	Easting	Finish	Easting		
COORDINATES		Northing		Northing		
WEATHER	Temperature	Time	am / pm			
Wind	<input type="checkbox"/> calm	<input type="checkbox"/> moderate - moves branches				
	<input type="checkbox"/> light - leaves rustle (2)	<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 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 type="checkbox"/> dark - quarter moon or moon with heavy cloud	<input type="checkbox"/> bright - half moon or more and no cloud				
OBSERVATIONS						
DIST.	TRANS. NO.	SPECIES	OBS. TYPE	DIST. from TRANS.	COUNT	NOTES
<i>50</i>	<i>1</i>	<i>Petaurus volans</i>	<i>S</i>	<i>0</i>	<i>1</i>	
<i>100</i>	<i>1</i>	<i>Acrobates pygmaeus</i>	<i>S</i>	<i>10</i>	<i>1</i>	

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

[illegible]

NORTH  
[ TOP ]

## Spotlight