
NORTHERN RIVERS REGION

To NESFHAB representatives:

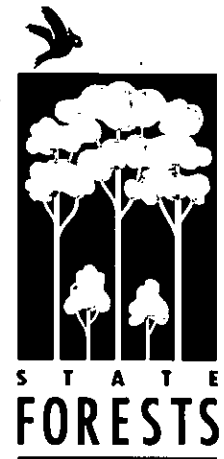
~~(1) Georgia Beyer and Daniel Hall~~

2) Russ Ainley

From Mark Carron, Harvesting Advisory Board Co-ordinator

Date 4 September 1998

Subject FLORA and FAUNA SURVEY REPORTS



Attached please find a copy of the Threatened Species Protocol Pre-Logging and Pre-Roading Survey Report for Tenterfield Management Area Girard S.F. Compartments 34.

Regards

John
for Mark Carron



STATE FORESTS of NSW.
THREATENED SPECIES PROTOCOL PRE-LOGGING AND
PRE-ROADING SURVEY REPORT - 1998.

Region	Northern Rivers	Management Area	Tenterfield
State Forest	Girard	Compartment(s)	34

PART A. DESKTOP REVIEW

Date of Review: 24 Jul 1998 Undertaken by: N.W. Longmore

1. Previous Surveys undertaken within 2 km or 5 km.

Survey Type	Source	Date	Distance	Reliable Survey
Microbats (Harptrap) 0801 (383)	NEF Biodiversity Study	1994	Within 2 km	Yes
Microbats (Harptrap) 0801 (384)	NEF Biodiversity Study	1994	Within 2 km	Yes
Spotlighting 08W	NEF Biodiversity Study	1994	Within 5 km	Yes
Spotlighting 08Z	NEF Biodiversity Study	1994	Within 5 km	Yes
Spotlighting 08C	NEF Biodiversity Study	1994	Within 5 km	Yes
Microbats (Harptrap) 08A	NEF Biodiversity Study	1994	Within 5 km	Yes
Microbats (Harptrap) 08B	NEF Biodiversity Study	1994	Within 5 km	Yes
Microbats (Harptrap) 08AG (377)	NEF Biodiversity Study	1994	Within 5 km	Yes
Microbats (Harptrap) 08AG (378)	NEF Biodiversity Study	1994	Within 5 km	Yes
Nocturnal call playback 08AR	NEF Biodiversity Study	1994	Within 5 km	Yes
Nocturnal call playback 08AG	NEF Biodiversity Study	1994	Within 5 km	Yes
Nocturnal call playback 08CR	NEF Biodiversity Study	1994	Within 5 km	Yes
Nocturnal call playback 08AM	NEF Biodiversity Study	1994	Within 5 km	Yes
Spotlight	Tenterfield EIS	1992	Within 5 km	Yes
Nocturnal call playback	Tenterfield EIS	1992	Within 5 km	Yes
Hairtubes	Tenterfield EIS	1992	Within 5 km	Yes

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

Scat and track	Tenterfield EIS	1992	Within 5 km	Yes
Riparian Frog	Tenterfield EIS	1992	Within 5 km	Yes
Non-riparian Frog	Tenterfield EIS	1992	Within 5 km	Yes
Microbats	Tenterfield EIS	1992	Within 5 km	Yes
Small mammals	Tenterfield EIS	1992	Within 5 km	Yes
Diurnal birds	Tenterfield EIS	1992	Within 5 km	Yes
Reptiles	Tenterfield EIS	1992	Within 5 km	Yes

Notes: NEF Biodiversity Study Report No.3.
Tenterfield Management Area EIS, Supporting document No.4 Sites:
(Marbled frogmouth call playback)
M1. 433900 6794900
M2. 434100 6794900
M3. 434600 6794900
M4. 434900 6794900
M5. 431900 6797900
M6. 431400 6797400
M7. 435400 6794900
(spotlight, call playback, hairtube, microbat, diurnal bird, reptile)
1. 433900 6796400
2. 434500 6795600
3. 433800 6794800
4. 433050 6794800
5. 431550 6796060
6. 431100 6797050
7. 432100 6795050

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

Species Name	AMG E	AMG N	Date	Observation Type	Observers Name	Source
Tiger Quoll	431000	6805500	28 Jul 1989	O	U	A
Koala	434500	6804500	28 Apr 1972	O	U	A
Rufous Bettong	434800	6801800	9 Feb 1992	O	U	A
Koala	430300	6801750	25 Oct 1997	O	U	A
Rufous Bettong	428200	6801200	9 Feb 1992	O	U	A
Rufous Bettong	428200	6801000	7 Feb 1992	O	U	A
Glossy Black Cockatoo	428500	6800200	5 Feb 1992	O	U	A
Rufous Bettong	428700	6800200	5 Feb 1992	O	U	A
False Pipistrelle	428900	6799100	7 Feb 1992	T	U	A
Glossy Black Cockatoo	428900	6799100	9 Feb 1992	O	U	A
Glossy Black Cockatoo	430900	6798400	6 Feb 1992	O	U	A
Rufous Bettong	432800	6799400	7 Feb 1992	O	U	A
Rufous Bettong	432800	6799300	9 Feb 1992	O	U	A
Rufous Bettong	432850	6799250	26 May 1992	O	Fanning	A-EIS
Rufous Bettong	432800	6799200	6 Feb 1992	O	U	A
Rufous Bettong	435100	6799900	11 Jan 1995	R	U	A
Sooty Owl	431200	6797300	6 Feb 1992	O	U	A
Sooty Owl	431500	6797350	26 May 1992	O	Fanning	A-EIS
Wompoo Fruit Dove	431100	6797050	19 Apr 1992	O	Fanning	A-EIS

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

Glossy Black Cockatoo	431100	6797050	19 Apr 1992	O	Fanning	A-EIS
Greater Broad-nosed Bat	431100	6797050	28 Jan 1994	W	Fanning	A-EIS
Common Bent-wing Bat	431100	6797050	28 Jan 1994	W	Fanning	A-EIS
Sooty Owl	431100	6797050	23 Mar 1992	O	Fanning	A-EIS
Yellow-bellied Glider	429150	6797100	25 May 1992	O	Fanning	A-EIS
Sooty Owl	429000	6796700	10 Jun 1978	O	U	A
Powerful Owl	429000	6796700	10 Jun 1978	O	U	A
Powerful Owl	428950	6795950	25 May 1992	O	Fanning	A-EIS
Sooty Owl	431700	6796400	26 May 1992	O	Fanning	A-EIS
Common Bent-wing Bat	431550	6796060	28 Jan 1994	W	Fanning	A-EIS
Greater Broad-nosed Bat	431550	6796060	28 Jan 1994	W	Fanning	A-EIS
False Pipistrelle	431550	6796060	28 Jan 1994	W	Fanning	A-EIS
Rufous Bettong	431550	6796060	22 Mar 1992	O	Fanning	A-EIS
Powerful Owl	434300	6796700	6 Feb 1992	O	U	A
Powerful Owl	433900	6796400	24 Mar 1992	O	U	A
False Pipistrelle	434000	6796350	6 Feb 1992	T	U	A
Greater Broad-nosed Bat	434000	6796350	6 Feb 1992	T	U	A
False Pipistrelle	434250	6795900	6 Feb 1992	T	U	A
Sooty Owl	434600	6795800	6 Feb 1992	O	U	A
Powerful Owl	434300	6795600	17 Mar 1994	O	U	A
Wompoo Fruit Dove	434500	6795600	19 Apr 1992	O	Fanning	A-EIS
<i>Phyloria loveridgei</i>	434500	6795600	1 Jan 1992	T	Fanning	A-EIS
Sooty Owl	434500	6795600	25 Mar 1992	O	Fanning	A-EIS
Common Bent-wing Bat	432100	6795050	5 Feb 1994	W	Fanning	A-EIS
False Pipistrelle	432100	6795050	5 Feb 1994	W	Fanning	A-EIS
Greater Broad-nosed Bat	432100	6795050	5 Feb 1994	W	Fanning	A-EIS
<i>Litoria subglandulosa</i>	432100	6795050	1 Jan 1992	T	Fanning	A-EIS
Golden-tipped Bat	433050	6794800	5 Feb 1994	W	Fanning	A-EIS
Common Bent-wing Bat	433050	6794800	5 Feb 1994	W	Fanning	A-EIS
False Pipistrelle	433800	6794800	31 Jan 1994	W	Fanning	A-EIS
Common Bent-wing Bat	433800	6794800	31 Jan 1994	W	Fanning	A-EIS
Sooty Owl	434600	6795000	17 Mar 1994	O	U	A
Powerful Owl	433000	6794050	26 May 1992	O	Fanning	A-EIS
<i>Eucalyptus tetrapleura</i>						
<i>Dendricnide moroides</i>						

NPWS Atlas Date: 24 Jun 1998

SF Fauna Records Updated to: 24 Jun 1998

SF Flora Records Updated to: 24 Jun 1998

Notes: NPWS WinERMS derived maps (24 Jun 1998) attached to this report.

Region	Northern Rivers	Management Area	Tenterfield
State Forest	Girard	Compartment(s)	34

PART B. Flora and Threatened Fauna Features Traverse

Net Area: 100 Hectares

Traverse Length: 5.4 Km 2.5 Km (A. Benwell), 2.9 Km (D. Stewart, B. Thornhill) route of traverse on attached map

Surveyed By: D. Stewart, A. Benwell, R. Kooyman

Duration of Traverse: 6:55 hrs A. Benwell [3 hrs], D. Stewart, B. Thornhill [3 hr 55 min](Person Hours)

1. Conservation Protocol Appendix 1 Flora Detections

Species Name	AMG E	AMG N	Locality Description	Date	Observers Name	Number Observed	Count/ Estimate
<i>Plectranthus suaveolens</i>	434500 434700	6799600 6799700	Outcropping rock on steep slope below 34/2 Rd	7 Aug 1998	A. Benwell	NA	NA

Notes: *Plectranthus suaveolens* is a ROTAP species, the location is marked on the 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	Y	Y

Region	Northern Rivers	Management Area	Tenterfield
State Forest	Girard	Compartment(s)	34

PART C: TARGETED FAUNA SURVEYS

1. Assessment of Surveys Required

Survey Type	Survey Required (Y/N/IP ¹)
Spotlight	Y
Nocturnal Call Playback ¹	Y
Hairtubes	Y, IP
Scat and Track	Y
Riparian Frog	Y, IP
Non-riparian Frog	Y, IP
Micro Bats	Y, IP
Small Mammals	Y
Diurnal Birds	Y
Reptiles	N

¹IP = implement prescription without survey

2. Surveys Undertaken

Survey Type	Date Undertaken	Time Spent	Undertaken By
Spotlight (foot transect) 600m	4 Aug 1998 10 Aug 1998	0:45 min 0:40	D. Stewart, J. Russell, B. Thornhill
Spotlight (foot transect) 700m	4 Aug 1998 10 Aug 1998	0:55 0:50	D. Stewart, J. Russell, B. Thornhill
Call playback Site 1	4 Aug 1998 10 Aug 1998	1:15 1:00	D. Stewart, J. Russell, B. Thornhill
Call playback Site 2	4 Aug 1998 10 Aug 1998	1:15 1:10	D. Stewart, J. Russell, B. Thornhill
Scat transect 400m	7 Aug 1998	0:30	K. Harvey, B. Thornhill
Scat transect 1.2Km	27 Jul 1998	2:00	B. Thornhill
Diurnal birds	11 Aug 1998	0:45	D. Stewart
Koala survey T1 1.0Km	7 Aug 1998	1:45	K. Harvey, B. Thornhill
Small mammal (HRM)	17 Aug 1998	3:30	R. Kooyman, W. Longmore

Location of surveys shown on attached maps.

Number of Data Sheets Attached: 12

Region	Northern Rivers	Management Area	Tenterfield
State Forest	Girard	Compartment(s)	34

PART D. SURVEY RESULTS

Prepared By: N.W. Longmore

Date: 24 Aug 1998

New Threatened Fauna Detections

Species Name	AMG E	AMG N	Accur	Date	Cmpt	Observation Type	Observers Name	Survey/ Incidental
Masked Owl	434900	6799780	250	4 Aug 98	34	Heard call	D. Stewart, J. Russell, B. Thornhill	S
Powerful Owl	433630	6788820	450	10 Aug 98	34	Heard call	D. Stewart, J. Russell, B. Thornhill	S
Glossy Black Cockatoo	434200	6799500		10 Aug 98	34	Observed	F. Bugno	I
Parma Wallaby	434960	6799830		4 Aug 98	34	Observed	D. Stewart	I

SUMMARY

GENERAL

Surveys for flora and fauna were initiated on 27 July 1998 and culminated on 17 August 1998. Weather conditions throughout the survey period consisted of calm to moderating winds, and no indication of rain within the previous 24 hours. The compartment is located in hilly range country between 650 and 850m ASL. It is small with a net loggable area of less than 100ha (part B of this report). Surveys undertaken are provided in part C of this report, and new threatened fauna detections within this compartment are provided in part D of this report.

Benwell carried out the flora surveys. D. Stewart, J. Russell, B. Thornhill, R. Kooyman, and W. Longmore conducted targeted fauna species surveys, the latter two being involved only with the Hastings River Mouse habitat assessment.

Note that surveys involve an integrated process and that survey types and objectives are not carried out in isolation of each other or of field activities.

FLORA.

The one surveyor carried out this work on 7 August 1998. His report summarises the result from this survey and general traverse route map is attached. Forest types include 62 (White Mahogany-Grey Gum-Grey Ironbark), 74 (Spotted Gum), 122 (New England Stringybark), 47 (Tallowood-Sydney Blue Gum) and 163 (New England Blackbutt). Forest type 122 comprises patches dominated by Diehard Stringybark *E. cameronii*. Type 62 is dominated by *E. microcorys*, *E. biturbinata* and *E. carnea* [?] with *E. campanulata*, *E. maculata*, *E. cameronii* and *E. siderophloia*. Spotted Gum *E. maculata* (type 74) occupies lower elevation areas with a north east aspect. Stands of New England Blackbutt *E. campanulata* occur on the cooler high ridges and west facing slopes. There is a well-developed grassy understorey with a major blady grass element.

A distance of 2.5 km, taking 3 hours was surveyed for threatened flora. No threatened plant species were detected during the flora surveys. One ROTAP listed species, the Sweet Cockspur Flower *Plectranthus suaveolens*, was located in limited numbers within the compartment. These plant detections have been mapped.

FAUNA

Three observers (D. Stewart, J. Russell, B. Thornhill) carried out the main fauna surveys between 27 July 1998 and 11 August 1998, supplemented by an additional habitat assessment for the Hasting River Mouse by R. Kooyman and W. Longmore on 17 August 1998.

TRAVERSE SURVEYS

Searches for fauna and threatened fauna features were integrated both into the compartment traverses and throughout general activities (travel, habitat assessment...) and surveys (scat and track, and diurnal bird). These surveys were carried out on 10 August 1998. Prescription 21 should be applied for the Glossy Black Cockatoo. Results of these traverse surveys showed the following species present

Species	Number	Species	Number
Eastern Grey Kangaroo (scats)	1	Red-necked Wallaby (scats)	1
Bandicoot spp. (diggings)	1	Glossy Black Cockatoo	3

SPOTLIGHT SURVEYS

A total of 1.3km of spotlight foot traverse (repeated) was surveyed between 4 and 10 August 1998. Yellow-bellied Glider, Squirrel Glider, Koala, Rufous Bettong, Parma Wallaby, Tiger Quoll, and owls (Powerful, Masked, and Sooty) were targeted. Results of these spotlighting surveys showed the following species present.

Species	Number	Species	Number
Greater Glider	4	<i>Litoria verreauxii</i>	2
<i>Nyctophilus</i> [?] sp.	2	<i>Crinia signifera</i>	>5
Tawny Frogmouth	1	Australian Owlet-Nightjar	1
Southern Boobook	1	Red-necked Wallaby	1
Grey Goshawk	1	Eastern Grey Kangaroo	1

CALL PLAYBACK SURVEYS

Owls and arboreal mammals

Two call playback sites were monitored throughout the survey area. During these call playbacks calls of Powerful, Barking, Masked, and Sooty Owls, Koala, Yellow-bellied Glider and Squirrel Glider were played. Masked Owl calls were omitted from playbacks on the 10th at survey site 1 as it had been previously detected on the 4th. Prescription 13 for Powerful and Masked Owls should apply. Results of call playback showed the following species present.

Species	Number	Species	Number
Masked Owl	1	Sugar Glider	1
Australian Owlet Nightjar	4	Grey-headed Flying Fox	2
Southern Boobook	1	Powerful Owl	1
Tawny Frogmouth	1		

FROG SURVEYS

Habitat assessments indicate possible habitat for both *Mixophyes balbus* and *Litoria subglandulosa*. This habitat is along the second order stream bounding the southern / southeastern compartment boundary. Two other species (*Litoria verreauxii* and *Crinia*

signifera) were detected during spotlighting surveys. Prescription 18 for threatened frogs should apply.

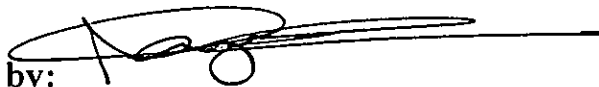
BAT SURVEYS

Habitat for the Golden-tipped Bat *Kerivoula papuensis*, habitat also considered suitable for the Large-footed Myotis *Myotis adversus*, along the second order stream bounding the southern / southeastern compartment boundary. Habitat for the myotis has been reserved through implementation of the Hastings River Mouse buffer. This exclusion zone will also benefit the Golden-tipped Bat. The latter could also feasibly occur within the dry vine forest (rainforest) towards the head of that stream. This area should also be buffered to cater for its probable presence (see mapped area for Hastings River Mouse). Prescriptions 17 and 19 for critical weight range vertebrates and threatened bats should apply

DIURNAL BIRDS

A survey on 11 August 1998 failed to locate the presence of any threatened diurnal birds. Bird species targeted included Powerful, Masked, and Sooty Owls, and Red Goshawk. During other surveys incidental records of Glossy Black Cockatoos and their feed trees were made, these sightings have been mapped. Results of the diurnal surveys are listed within the survey reports, together with a complete list obtained during the entire survey. As stated for the Traverse Surveys prescription 21 should be applied for the Glossy Black Cockatoo

Prepared by:



Senior Ecologist

Date: 3 Sep 98

- | | |
|---------------------|--|
| Attachments: | <ol style="list-style-type: none">1. Maps indicating location of threatened species detections, survey points and transects2. Raw survey data sheets3. Flora species lists |
|---------------------|--|

Preliminary Flora Survey
Compartment 34 Girard State Forest

for
State Forests of NSW
Casino Regional Office
Walker St Casino

10st August 1998

Andrew Benwell
Botanical and Environmental Consultant
P.O. Box 641, Mullumbimby, 2482

Method

A botanical survey of Compartment 34 Girard State Forest was carried out on 7/8/198. The compartment was surveyed by roadside survey and foot traverse. The traverses were stratified to sample the range of forest types and topography within the net loggable area. The location of foot traverses is shown on the attached map and total traverse distance and duration is indicated below:

Total traverse length	2.5 km
Traverse length per 200ha	5 km
Total traverse duration	3 hrs
Total traverse duration per 200ha	6 hrs

General Description

Compartment 24 is a small compartment with a net loggable area of about 100ha located in hilly range country at 650 to 850 metres elevation roughly mid-way between Casino and Tenterfield. Mapped forest types in the compartment include 62 (White Mahogany-Grey Gum-Grey Ironbark), 74 (Spotted Gum), 122 (New England Stringybark), 47 (Tallowood-Sydney Blue Gum) and 163 (New England Blackbutt). The level of detail indicates the compartment was ground truthed during mapping. Forest type 122 comprises patches dominated by Diehard Stringybark (*E. cameronii*). Type 62 is dominated by *E. microcorys*, *E. biturbinata* and *E. carnea* ? with *E. campanulata*, *E. maculata*, *E. cameronii* and *E. siderophloia*. Spotted Gum (*E. maculata*) (type 74) occupies lower elevation areas with a north east aspect. Stands of New England Blackbutt (*E. campanulata*) occur on the cooler high ridges and west-facing upper slopes.

The compartment is in the transition zone between the foothill open forests (types 62 and 74) and higher elevation forests (e.g. 122 and 163).

Threatened or Significant Flora Species

A list of all plant species recorded during the survey is attached to this report.

TSC Act Plant Species

No plant species listed in the Schedules of the TSC Act were recorded in the compartment.

ROTAP Species

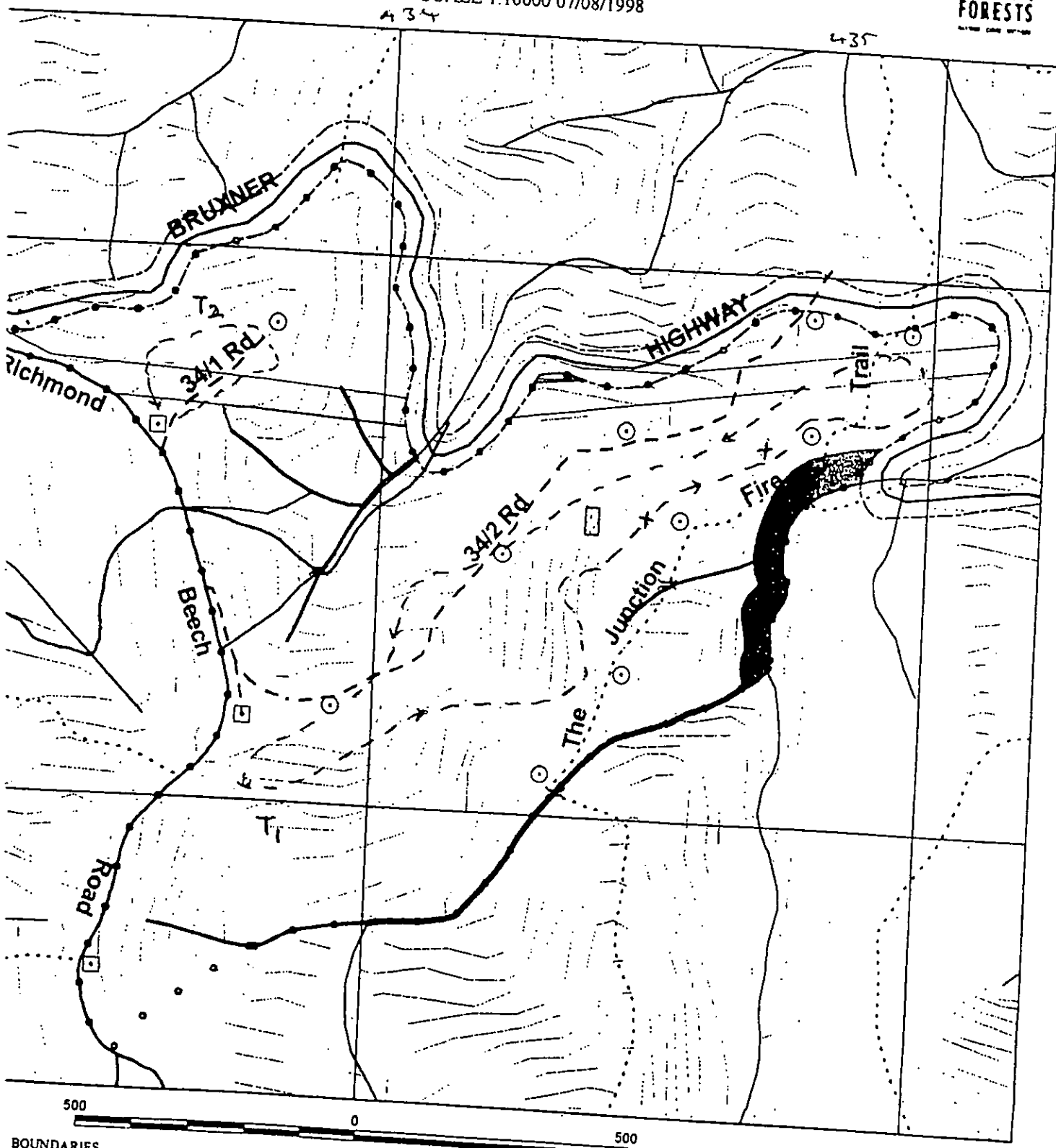
One species listed on ROTAP (Rare or Threatened Australian Plants)(Briggs and Leigh 1995) was recorded in the compartment:

Plectranthus suaveolens (Sweet Cockspur Flower) (3KC-)

A poorly known (K) species inhabiting rock outcrops. Small colonies of *Plectranthus suaveolens* were seen on patches of outcropping rock at a few points on the steep slope below 34/2 Rd. Some rock outcrops supported *Plectranthus parviflorus* instead of *Plectranthus suaveolens*.

The rock outcrops are unlikely to be disturbed by machinery but could be adversely affected by falling tree crowns or snagging. Likely to occur elsewhere in adjoining compartments. Widespread on rocky outcrops and patches. Mitigation measures probably not necessary.

NORTHERN RIVERS REGION - GLEN_NEW
DISTRICT
HARVEST PLAN OPERATIONAL MAP
COMPARTMENT 34
GIRARD STATE FOREST
UNKNOWN MAP SHEET
HARVEST PLAN NUMBER 0
SCALE 1:10000 07/08/1998



- | | | |
|--|--|--|
| <p>BOUNDARIES</p> <ul style="list-style-type: none"> State Forest Boundary Compartment Boundaries <p>ROADS (Proposed in Red)</p> <ul style="list-style-type: none"> Natural Surface Sealed or Gravelled Four wheel drive <p>NORMAL PRESCRIPTIONS</p> <ul style="list-style-type: none"> Harvestable Area <p>MODIFIED PRESCRIPTIONS</p> | <p>MODIFIED PRESCRIPTIONS</p> <ul style="list-style-type: none"> Flora and Fauna Protect Slopes likely over 30 degrees Rainforest <p>NON HARVEST AREAS</p> <ul style="list-style-type: none"> General <p>DUMP SITES OR LANDINGS</p> <ul style="list-style-type: none"> Permanent Dry Permanent Wet Temporary Dry | <p>DUMP SITES OR LANDINGS</p> <ul style="list-style-type: none"> Temporary Wet <p>WATERCOURSES & DRAINAGE</p> <ul style="list-style-type: none"> External Drainage Original First Order Second Order Third Order Approved Crossings |
|--|--|--|

MN



TRAVERSE SURVEY- NORTH. RIVERS REGION

*1 SHEET = 1 TRANSECT

STATE FOREST		Girard SF		M.A. Casino		COMPT. 34	
OBSERVER(S)		A. Benwell		DATE FROM DATE TO		7/8/98	
TIME		Start Time 10.30		Finish Time 1.30		Total Travel Time	
SURVEY NAME & LOCATION DETAILS							
AMG COORDINATES		Start 10.30		Easting 433900		Finish 1.30	
				Northing 6799200		Easting 433900	
						Northing 6799200	
THREATENED FLORA OBSERVATIONS		Species Possible					
TRANSECT DISTANCE	FLORA SPECIES	NUMBER	AREA SIZE	SITE DESCRIPTION &/OR EVIDENCE OF DISTURBANCE		MAP NOTED?	
800m	Plectranthus suavedens	15	0.1	434500 6799600		✓	
1.1km	"	"	15	0.1 434700 6799700		✓	
THREATENED FAUNA - SIGHTING OR FEATURE#							
TRANSECT DISTANCE	SPECIES OR FEATURE TYPE	NUMBER	SITE DESCRIPTION (MICROHABITAT)		MAP NOTED?		
THREATENED SPECIES FEATURES							
<ul style="list-style-type: none">• DIURNAL BIRD spp• TIGER QUOLL LATRINE AND DEN SITES• NESTS, DENS & ROOSTS OF LARGE BIRDS, (RAPTORS & OWLS) BATS, & HOLLOW DEPENDENT SPECIES• GLOSSY BLACK COCKATOO, ALBERTS LYREBIRD & BUSH THICK-KNEE NESTS• OWL PELLETS (& WHITE WASH)				<ul style="list-style-type: none">• DIURNAL BIRD spp• CAVES, TUNNELS & DISUSED MINES• DISTINCTIVE SCATS (TIGU, KOAL, & BRUSH-TAILED ROCK WALLABY)• PERMANENT SOAKS AND SEEPAGES• YEBG 'V-NOTCH' TREES			
GENERAL COMMENTS* & ARCHAEOLOGICAL ARTEFACTS		*RECORD FEATURES: EG. UNMAPPED CHANGE IN STRATA OR FOREST TYPE, ROCKY OUTCROPS ETC.					
TRANSECT DISTANCE	OBSERVATION OF					MAP NOTED?	

ant Species List - Cpt 34 Concord State Park

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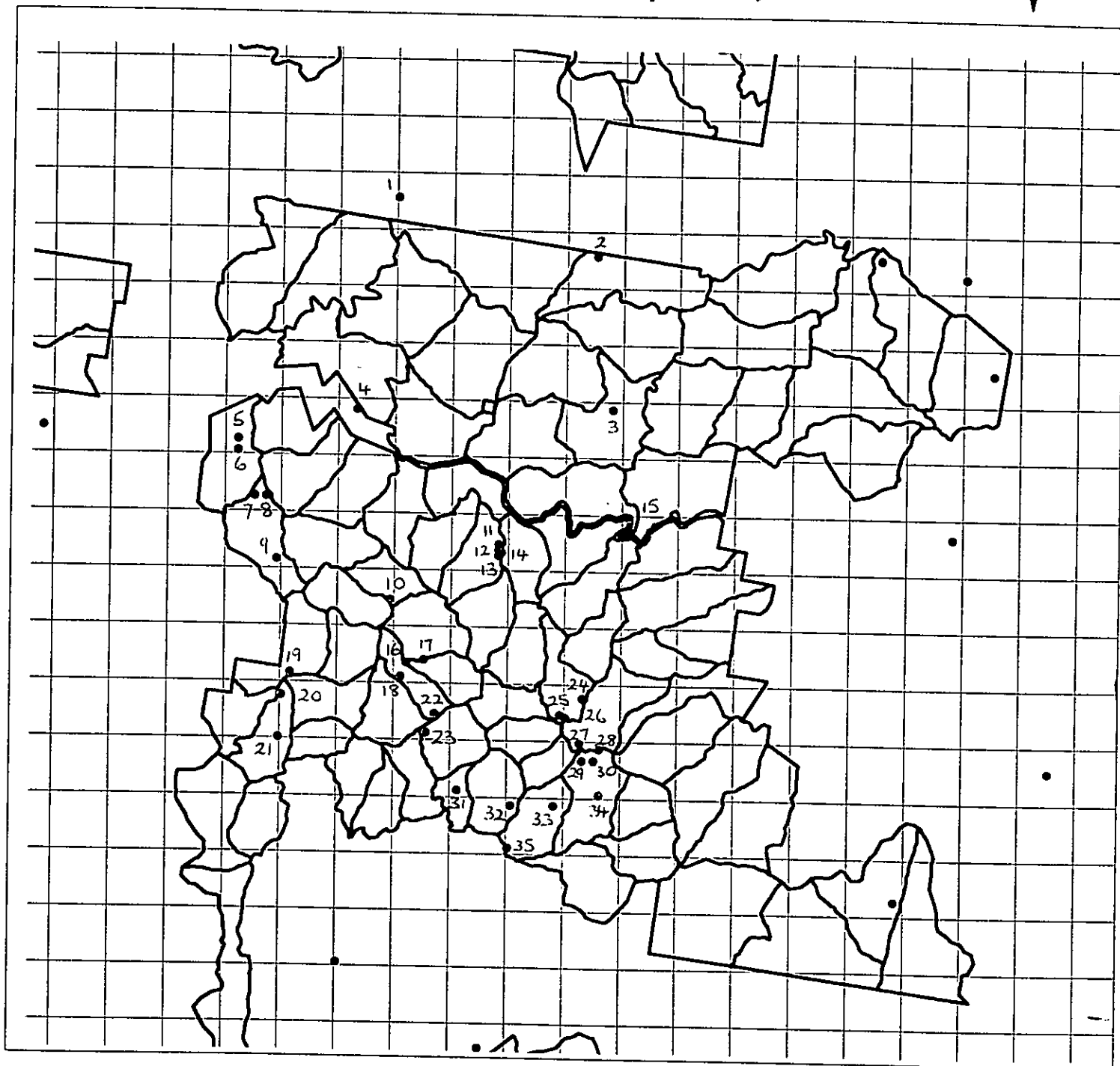
<i>E. microcarpa</i> c	<i>Senecio amygdalifolius</i> occ-c
<i>E. biturbinata</i> c	<i>Hibbernia scandens</i> r
<i>Sorghum leiocladium</i> c	<i>Sigesbeckia orientalis</i> r
<i>Thymus australis</i> nc	<i>Picus sp. (juvenile)</i> r
<i>Pteridium esculentum</i> r	<i>Poa billardieri</i> c
<i>Trochocarpa laevis</i> c	<i>E. saligna</i> c-occ
<i>Allocazoon tenuosa</i> c	<i>Cymodocea anceps</i> r
<i>Hardebergia violacea</i> c	<i>Kennedia robusta</i> occ
<i>E. campanulata</i> c	<i>Dodonaea viscidiflora</i> r
<i>Desmodium rhynchosyphum</i> c	<i>Lagenaria stipitata</i> occ
<i>Viola betonicifolia</i> c	<i>Hibbernia aspera</i> occ
<i>Solanum densiflorum</i> c	<i>Adiantum aethiopicum</i> occ
<i>Cerastium solanderi</i> c	<i>Chilozanthus sp.</i> r
<i>Maytenus sylvatica</i> occ	<i>Pratia purpurea</i> r
<i>Oxalis corniculata</i> occ	<i>Cymbidium swane</i> r
<i>Plectranthus parviflorus</i> occ	<i>Deschampsia speciosa</i> r
<i>Dianella caerulea</i> c	* <i>Plectranthus swanstonii</i> occ-r
<i>Desmodium varians</i> c	<i>Syntherisma arborescens</i> r
<i>Eumecurus latifolius</i> occ	<i>Billardiera scandens</i> occ
<i>Senecio sp. E.</i> occ	<i>Dodonaea aspera</i> r
<i>Oplismenus aeneus</i> occ	<i>Brachyotum microcarpum</i> c
<i>Rubus parviflorus</i> c	<i>Gonocarpus tetragynus</i> occ
<i>Leucopogon lanceolatus</i> sp. lanceol. occ	<i>Veronica cuensis</i> r
<i>Smilax australis</i> occ	<i>Brunneria australis</i> occ
<i>Lupinus cylindrica</i> c	<i>Corydalis sp.</i> occ
<i>Xanthoxylum melacophylla</i> occ-c	<i>Croton retusifolius</i> occ
<i>Desmodium brachypodum</i> occ	<i>Pittosporum undulatum</i> occ
<i>Tylophora paniculata</i> c	<i>Pultenaea retusa</i> r
<i>Coryza bonariensis</i> r	<i>Aclanthus sp.</i> occ
<i>Lophospermum californicum</i> occ-c	<i>E. maculata</i> c-occ
<i>Cenella asiatica</i> occ	<i>Veronica phibetii</i> r
<i>Cratogeomys clausenii</i> c	<i>Plantago</i> occ-c

<i>Clamoris</i>	r	
<i>Pandora pandorana</i>	occ	Type G2 E. meadow, E. bank
<i>Pellaea falcata</i>	r	E. caipantem, E. siderophylla
<i>Degea sp.</i>	occ	E. canariensis (E. canariensis?)
<i>Ternstroemia nifens</i>	r	
<i>Hydrocotyle acutifolia</i>	r	Type 7c on lower slopes
<i>Blechnum cartilagineum</i>	r	in eastern end of qtr, above
<i>E. canariensis</i> ? ✓	<	high, mixed company
<i>Calochortus debilis</i>	occ	G2 only. (like Clamoris ok)
<i>Pterospora unclata</i>	✓	
<i>Zinnia sumatrensis</i>	r	(one adult + 1 juvenile)
<i>E. siderophylla</i>	occ	
<i>Acacia montana</i>	occ	weeds - no hantara
<i>Panicum simile</i>	occ	hardly any introduced
<i>Digitaria ramulosa</i> ?	occ	specimen - 1 ?
<i>Echinochloa coarctata</i>	occ	
<i>Bombycinus arvensis</i> (grassy near Hwy)	occ	
<i>Cynodactylon refractum</i>	occ	
<i>Acacia biuncifolia</i>	occ	
<i>Breynia oblongifolia</i>	occ	
<i>Melichium wickströmii</i>	r	
<i>Halenia flourensii</i>	r	
<i>Oryctoloma ilicifolium</i>	occ-r	
<i>Davallia geniculifolia</i>	r	
<i>Deschampsia ligulifera</i> (on rock)	r	
<i>Panicum sp.</i>	occ	
<i>Tachyspermum scoparium</i>	r	
<i>Carex sp.</i> (area?)	r	
<i>Galium prostratum</i> ?	occ	
<i>Pinus rostrata</i>	occ	
<i>Acacia floribunda</i>	r	
(C. curvi Sally)		

Northern Rivers Region

Fauna Sites Map

Girard State forest - Cpts 11, 34



0.8 0 0.8 1.6 2.4 3.2 4 Kilometers



Scale

1:100000

- FaunaDeriv
- 1kmGridNR.shp
- RegionCompts.shp

Prepared by: Ken McCray 24/7/98

NORTHERN RIVERS REGION

Threatened Flora/Fauna Record Sheet

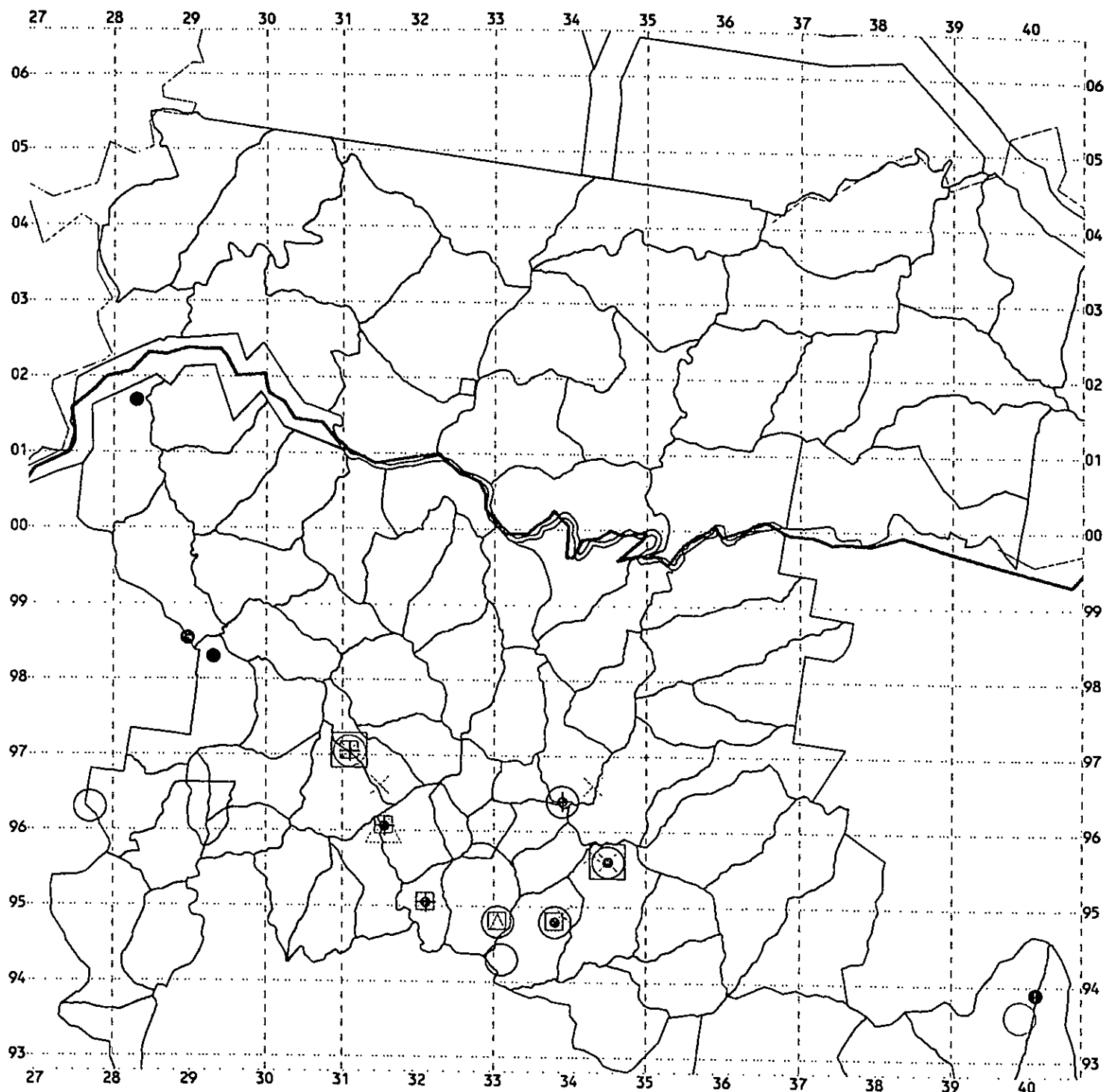


Loc. No.	Species Name	AMG East	AMG North	Date	Obs. Type	Observers Name	Source
1	TIGER QUOLL	4 31 000	68 05 500	28/7/99	O	U	A
2	KOALA	4 34 500	68 04 500	28/4/72	O	U	A
3	RUFOUS BETTONG	4 34 800	68 01 800	9/2/92	O	U	A
4	KOALA	4 30 300	68 01 750	25/10/97	O	U	A
5	RUFOUS BETTONG	4 28 200	68 01 200	9/2/92	O	U	A
6	" "	4 28 200	68 01 000	7/2/92	O	U	A
7	GBC	4 28 500	68 00 200	5/2/92	O	U	A
8	RUFOUS BETTONG	4 28 700	68 00 200	5/2/92	O	U	A
9	FALSE PIPISTELLE	4 28 900	67 99 100	7/2/92	T	U	A
9	GBC	"	"	9/2/92	O	U	A
10	GBC	4 30 900	67 98 400	6/2/92	O	U	A
11	RUFOUS BETTONG	4 32 800	67 99 400	7/2/92	O	U	A
12	" "	4 32 800	67 99 300	9/2/92	O	U	A
14	" "	4 32 850	67 99 250	26/5/92	O	FANNING	A-EIS
13	" "	4 32 800	67 99 200	6/2/92	O	U	A
15	" "	4 35 100	67 99 400	11/1/95	R	U	A
16	SOOTY OWL	4 31 200	67 97 300	6/2/92	O	U	A
17	SOOTY OWL	4 31 500	67 97 350	26/5/92	O	FANNING	A-EIS
18	WOMPOO FRUIT-DOVE	4 31 100	67 97 050	19/4/92	O	"	A-EIS
18	GBC	"	"	"	O	"	"
18	GREATER BEND-NOSED BAT	"	"	28/1/94	W	"	"
18	COMMON BENT-WING BAT	"	"	"	W	"	"
18	SOOTY OWL	"	"	23/3/92	O	"	"
19	YBC	4 29 150	67 97 100	25/5/92	O	"	"
20	SOOTY OWL	4 29 000	67 96 700	10/6/78	O	U	A
20	POWERFUL OWL	"	"	"	O	U	A
21	POWERFUL OWL	4 28 950	67 95 950	25/5/92	O	FANNING	A-EIS
22	SOOTY OWL	4 31 700	67 96 400	26/5/92	O	"	"
23	COMMON BENT-WING BAT	4 31 550	67 96 060	28/1/94	W	"	"
23	GREATER BEND-NOSED BAT	"	"	"	"	"	"
23	FALSE PIPISTELLE	"	"	"	"	"	"
23	RUFOUS BETTONG	"	"	22/3/92	O	"	"

Threatened Flora/Fauna Record Sheet

[illegible]

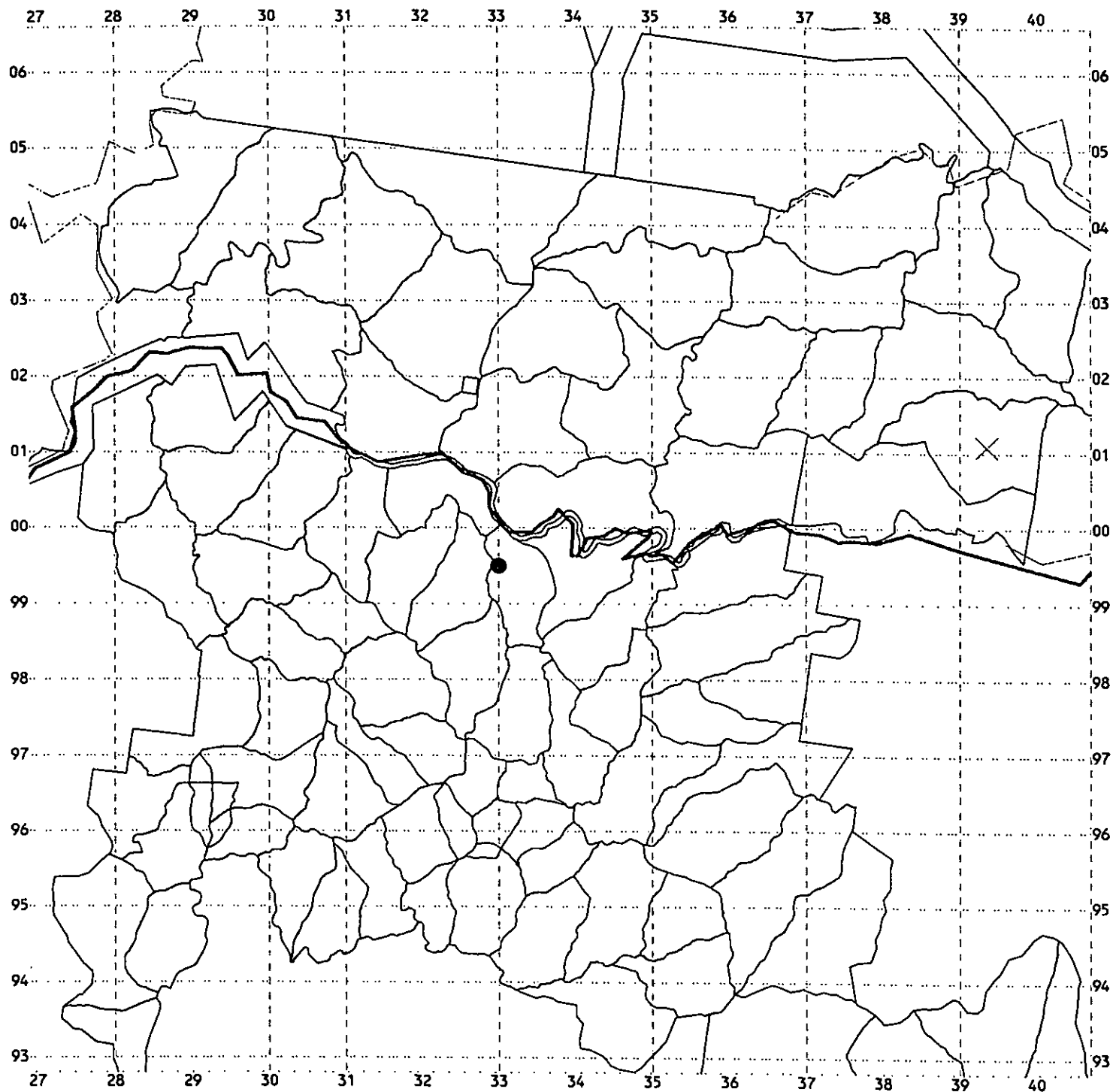
Restricted S1&2 Fauna (4/96)	Girard 11, 34 + 5km
Falsistrellus tasmaniensis	6
Sooty Owl	6
Miniopterus schreibersii	5
Powerful Owl	5
Scoteanax rueppellii	4
Yellow-bellied Glider	3
Wompoo Fruit-Dove	2
Glossy Black-Cockatoo	1
Kerivoula papuensis	1
Rufous Bettong	1



GIRARD SF No. 303 - Cpts. 11 & 34
Restricted S1 & 2 Fauna

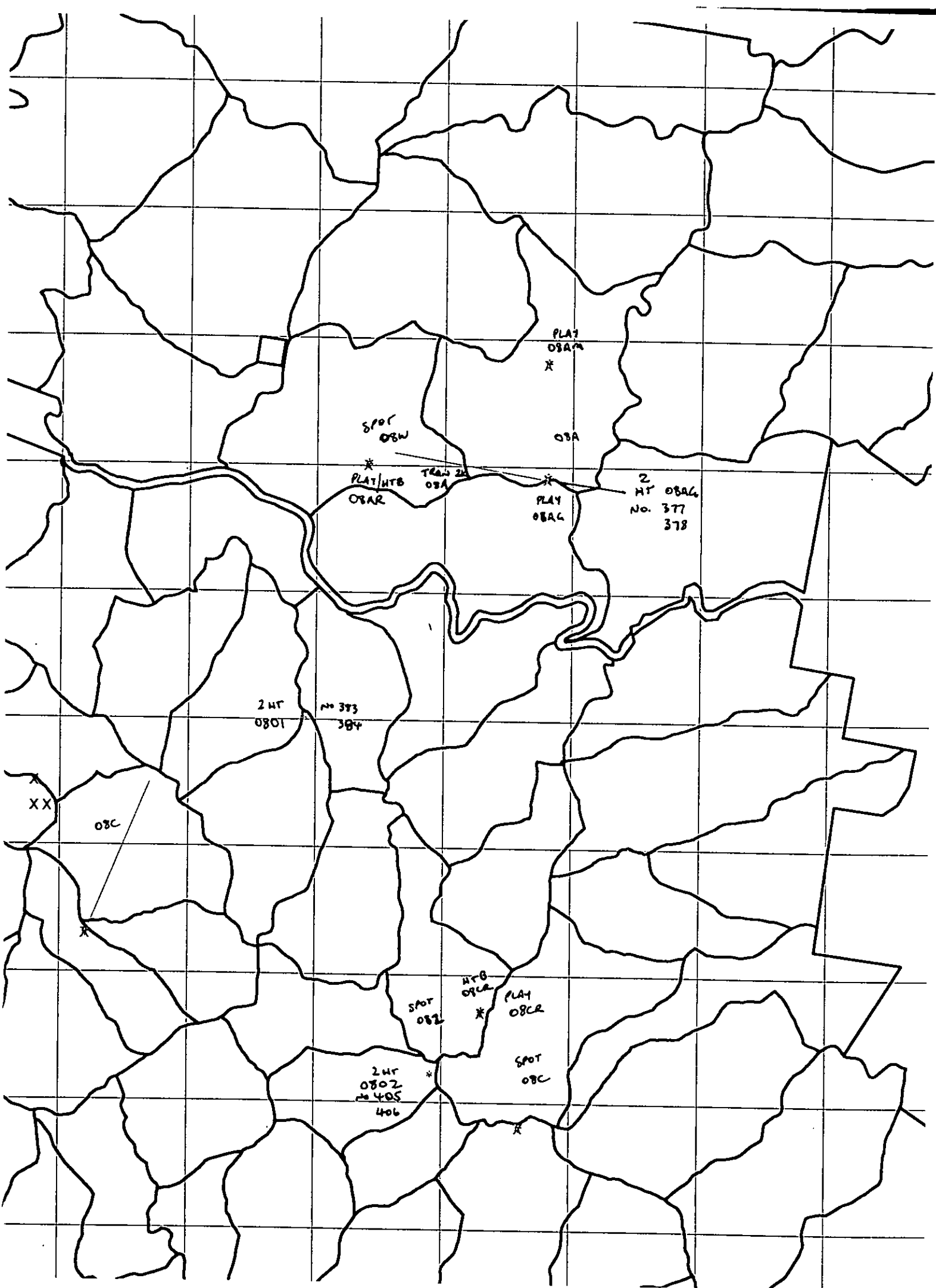
- *Falsistrellus tasmaniensis*
- Glossy Black-Cockatoo
- △ *Kerivoula papuensis*
- *Miniopterus schreibersii*
- Powerful Owl
- △ Rufous Bettong
- + *Scotenax rueppellii*
- × Sooty Owl
- Wompoo Fruit-Dove
- Yellow-bellied Glider

Restricted S1&2 Flora (4/96)	Girard 11, 34 + 5km	
Eucalyptus tetrapleura	2	
Dendrocnide moroides	1	

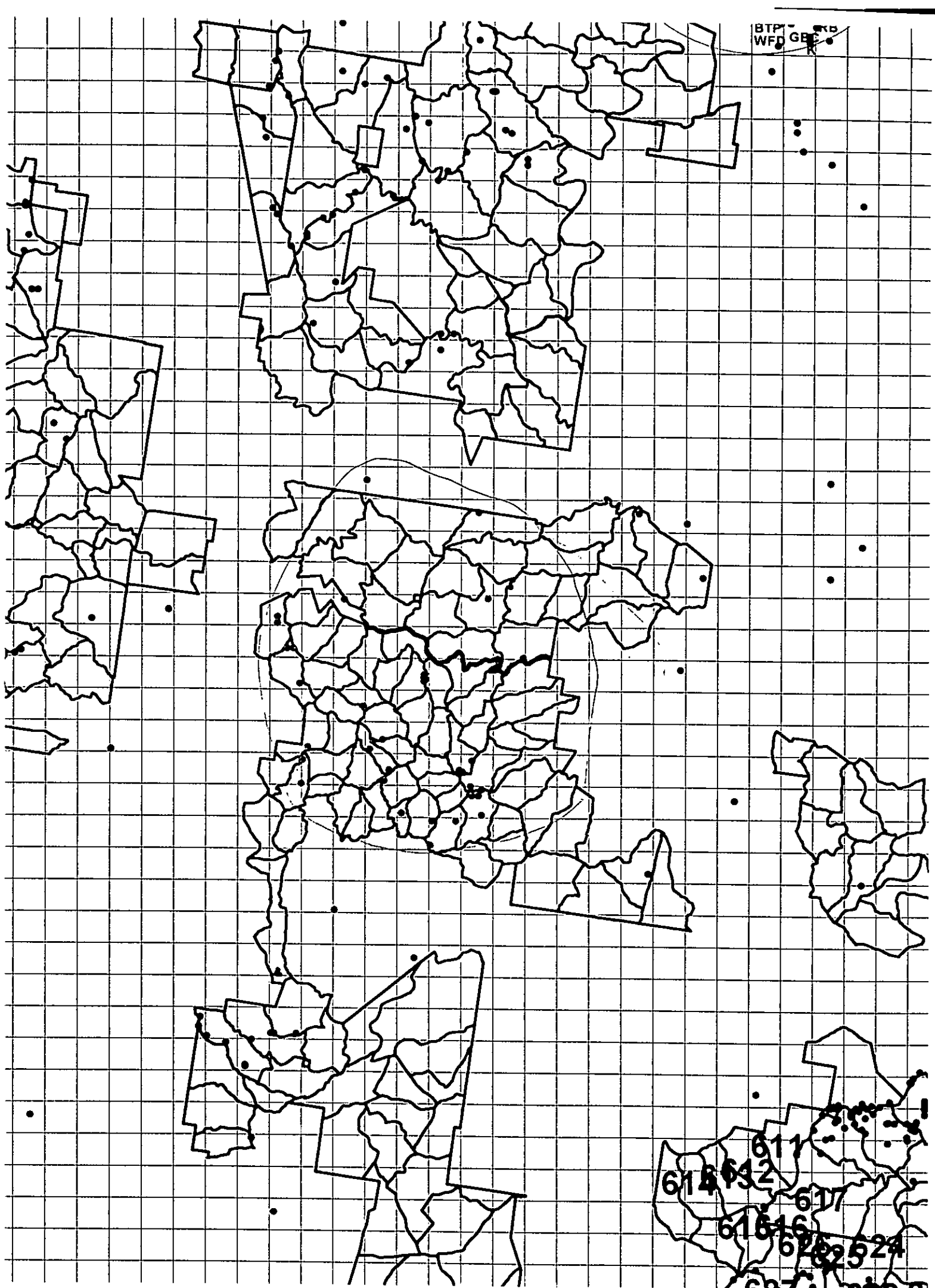


GIRARD SF No. 303 - Cpts. 11 & 34
Restricted S1 & 2 Flora

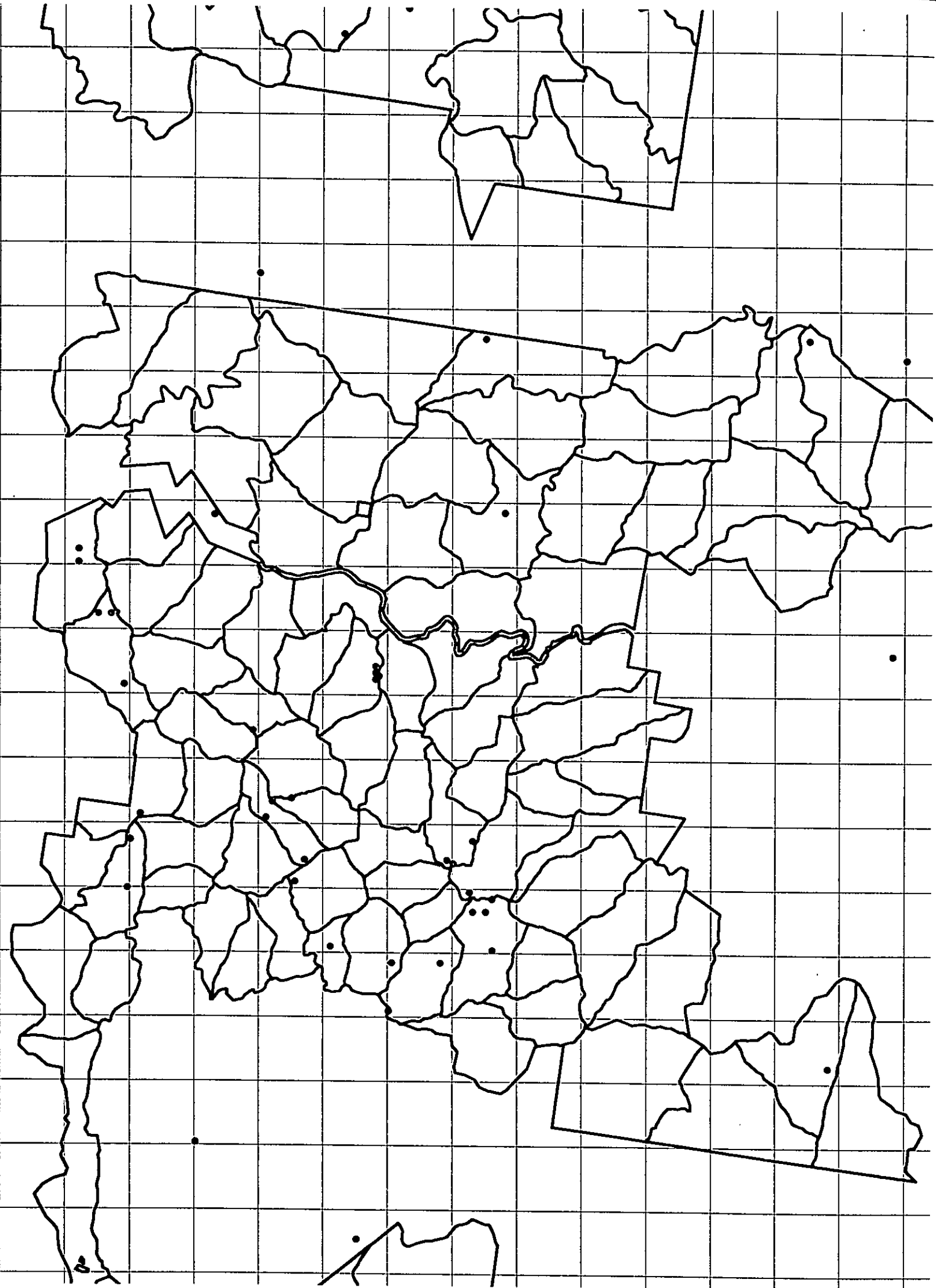
X *Dendrocnide moroides*
● *Eucalyptus tetrapleura*



BTP
WFD
GB



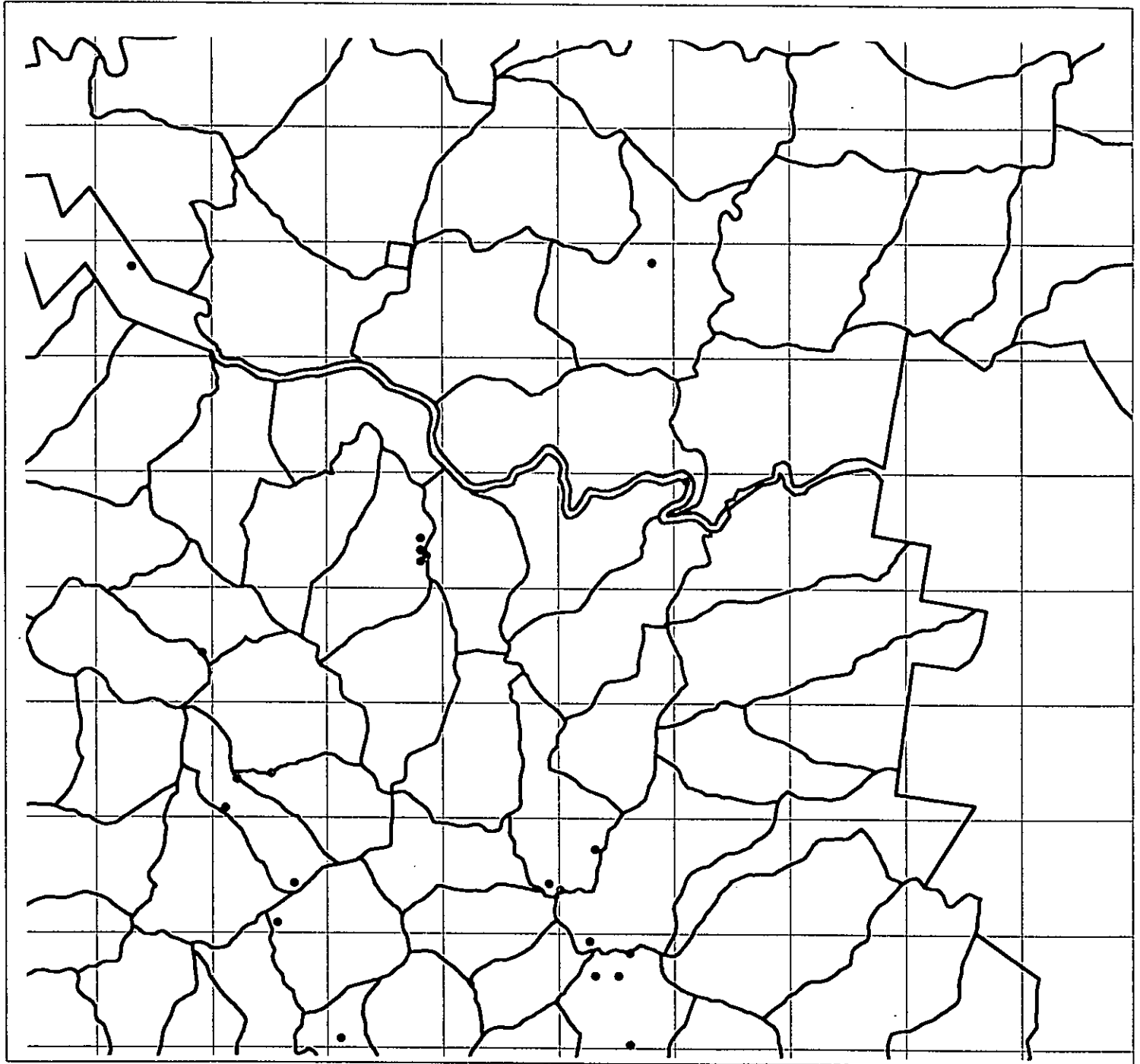
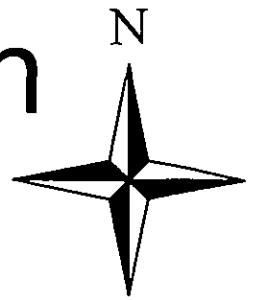
614632
611
617
61646
62524
627



Northern Rivers Region

Fauna Sites Map

Girard State forest - Cpts 11,34

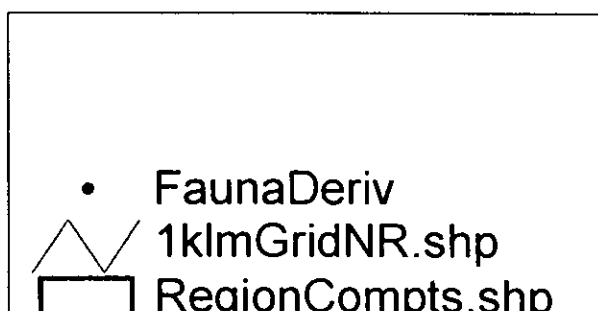


0.4 0 0.4 0.8 1.2 1.6 2 Kilometers



Scale

1:50000



Prepared by: Ken McCray 24/7/98



STATE FOREST		M.A.		COMPT.	
OBSERVER(S)		DATE FROM		REGION	
TIME		DATE TO		CODE	
SURVEY NAME & LOCATION DETAILS		Start Time		Finish Time	
		Total Travel Time			
AMG Start					
COORDINATES		Easting		Finish	
		Northing		Easting	
THREATENED FLORA		Species Possible		Northing	
OBSERVATIONS					
TRANSECT	FLORA	NUMBER	AREA	SITE DESCRIPTION	MAP
DISTANCE	SPECIES		SIZE	&/OR EVIDENCE OF DISTURBANCE	NOTED?
THREATENED FAUNA - SIGHTING OR FEATURE#					
TRANSECT	SPECIES OR FEATURE	NUMBER	SITE DESCRIPTION	MAP	
DISTANCE	TYPE		(MICROHABITAT)	NOTED?	
#THREATENED SPECIES FEATURES					
<ul style="list-style-type: none">• DIURNAL BIRD spp• TIGER QUOLL LATRINE AND DEN SITES• NESTS, DENS & ROOSTS OF LARGE BIRDS, (RAPTORS & OWLS) BATS, & HOLLOW DEPENDENT SPECIES• GLOSSY BLACK COCKATOO, ALBERTS LYREBIRD & BUSH THICK-KNEE NESTS• OWL PELLETS (& WHITE WASH)			<ul style="list-style-type: none">• DIURNAL BIRD spp• CAVES, TUNNELS & DISUSED MINES• DISTINCTIVE SCATS (TIQU, KOAL, & BRUSH-TAILED ROCK WALLABY)• PERMANENT SOAKS AND SEEPAGES• YEBG 'V-NOTCH' TREES		
GENERAL COMMENTS* & ARCHAEOLOGICAL ARTEFACTS		*RECORD FEATURES: EG. UNMAPPED CHANGE IN STRATA OR FOREST TYPE, ROCKY OUTCROPS ETC.			
TRANSECT	OBSERVATION OF	MAP			
DISTANCE		NOTED?			
500 m	Good sized stags, some with sizeable hollows	Yes			
	Few live hollow bearing trees. Forest with				
	obvious signs of severe fire. Small patches				
	of black / tussock grass suitable for Rufous				
	Betong. Sparse shelter for hollow seeking ground				

mammals. Scats of E. Grey Kangaroo & Red-necked Wallaby noted. Some droppings of Bandicoot

2



TRAVERSE SURVEY- NORTH. RIVERS REGION

*1 SHEET = 1 TRANSECT

STATE FOREST	Girard	M.A.	Casino	COMPT.	34
OBSERVER(S)	D. Stewart, B. Thornhill	DATE FROM	10/8/98	REGION	461
TIME	Start Time 1235	DATE TO		CODE	
		Finish Time	1445	Total Travel Time	2hr 10 mins
SURVEY NAME & LOCATION DETAILS Start Junction Fire Trail second order creek crossing and traverse SW and then cut back N, then E.					
AMG	Start	Easting	434320	Finish	Easting 434500
COORDINATES		Northing	6799050		Northing 6799380

THREATENED FLORA OBSERVATIONS Species Possible RB, PW, TR, Y-bb SgG RG Sq+K GBC PO, SO, K. HM

TRANSECT DISTANCE	FLORA SPECIES	NUMBER	AREA SIZE	SITE DESCRIPTION & OR EVIDENCE OF DISTURBANCE	MAP NOTED?

THREATENED FAUNA - SIGHTING OR FEATURE#				
TRANSECT DISTANCE	SPECIES OR FEATURE TYPE	NUMBER	SITE DESCRIPTION (MICROHABITAT)	MAP NOTED?
	Nil			

- #THREATENED SPECIES FEATURES
- DIURNAL BIRD spp
 - TIGER QUOLL LATRINE AND DEN SITES
 - NESTS, DENS & ROOSTS OF LARGE BIRDS, (RAPTORS & OWLS) BATS, & HOLLOW DEPENDENT SPECIES
 - GLOSSY BLACK COCKATOO, ALBERTS LYREBIRD & BUSH THICK-KNEE NESTS
 - OWL PELLETS (& WHITE WASH)
 - DIURNAL BIRD spp
 - CAVES, TUNNELS & DISUSED MINES
 - DISTINCTIVE SCATS (TIQU, KOAL, & BRUSH-TAILED ROCK WALLABY)
 - PERMANENT SOAKS AND SEEPAGES
 - YEBG 'V-NOTCH' TREES

GENERAL COMMENTS* & ARCHAEOLOGICAL ARTEFACTS	*RECORD FEATURES: EG. UNMAPPED CHANGE IN STRATA OR FOREST TYPE, ROCKY OUTCROPS ETC.	
TRANSECT DISTANCE	OBSERVATION OF	MAP NOTED?
1.9km	Evidence of severe Fire burning right to crowns	Yes
	Good stags. Few large hollow bearing trees.	
	Thick regrowth and quite moist at SW end.	
	Dry Forest elsewhere. Scats of small mammal collected. Some Yalwood in flower. Banks of	

second order stream vicinity suitable habitat for Hastings, River Mouse. Also suitable stream for 1.2, 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.0, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 3.0, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.0, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 6.0, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 7.0, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.9, 8.0, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9, 9.0, 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7, 9.8, 9.9, 10.0, 10.1, 10.2, 10.3, 10.4, 10.5, 10.6, 10.7, 10.8, 10.9, 11.0, 11.1, 11.2, 11.3, 11.4, 11.5, 11.6, 11.7, 11.8, 11.9, 12.0, 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.8, 12.9, 13.0, 13.1, 13.2, 13.3, 13.4, 13.5, 13.6, 13.7, 13.8, 13.9, 14.0, 14.1, 14.2, 14.3, 14.4, 14.5, 14.6, 14.7, 14.8, 14.9, 15.0, 15.1, 15.2, 15.3, 15.4, 15.5, 15.6, 15.7, 15.8, 15.9, 16.0, 16.1, 16.2, 16.3, 16.4, 16.5, 16.6, 16.7, 16.8, 16.9, 17.0, 17.1, 17.2, 17.3, 17.4, 17.5, 17.6, 17.7, 17.8, 17.9, 18.0, 18.1, 18.2, 18.3, 18.4, 18.5, 18.6, 18.7, 18.8, 18.9, 19.0, 19.1, 19.2, 19.3, 19.4, 19.5, 19.6, 19.7, 19.8, 19.9, 20.0, 20.1, 20.2, 20.3, 20.4, 20.5, 20.6, 20.7, 20.8, 20.9, 21.0, 21.1, 21.2, 21.3, 21.4, 21.5, 21.6, 21.7, 21.8, 21.9, 22.0, 22.1, 22.2, 22.3, 22.4, 22.5, 22.6, 22.7, 22.8, 22.9, 23.0, 23.1, 23.2, 23.3, 23.4, 23.5, 23.6, 23.7, 23.8, 23.9, 24.0, 24.1, 24.2, 24.3, 24.4, 24.5, 24.6, 24.7, 24.8, 24.9, 25.0, 25.1, 25.2, 25.3, 25.4, 25.5, 25.6, 25.7, 25.8, 25.9, 26.0, 26.1, 26.2, 26.3, 26.4, 26.5, 26.6, 26.7, 26.8, 26.9, 27.0, 27.1, 27.2, 27.3, 27.4, 27.5, 27.6, 27.7, 27.8, 27.9, 28.0, 28.1, 28.2, 28.3, 28.4, 28.5, 28.6, 28.7, 28.8, 28.9, 29.0, 29.1, 29.2, 29.3, 29.4, 29.5, 29.6, 29.7, 29.8, 29.9, 30.0, 30.1, 30.2, 30.3, 30.4, 30.5, 30.6, 30.7, 30.8, 30.9, 31.0, 31.1, 31.2, 31.3, 31.4, 31.5, 31.6, 31.7, 31.8, 31.9, 32.0, 32.1, 32.2, 32.3, 32.4, 32.5, 32.6, 32.7, 32.8, 32.9, 33.0, 33.1, 33.2, 33.3, 33.4, 33.5, 33.6, 33.7, 33.8, 33.9, 34.0, 34.1, 34.2, 34.3, 34.4, 34.5, 34.6, 34.7, 34.8, 34.9, 35.0, 35.1, 35.2, 35.3, 35.4, 35.5, 35.6, 35.7, 35.8, 35.9, 36.0, 36.1, 36.2, 36.3, 36.4, 36.5, 36.6, 36.7, 36.8, 36.9, 37.0, 37.1, 37.2, 37.3, 37.4, 37.5, 37.6, 37.7, 37.8, 37.9, 38.0, 38.1, 38.2, 38.3, 38.4, 38.5, 38.6, 38.7, 38.8, 38.9, 39.0, 39.1, 39.2, 39.3, 39.4, 39.5, 39.6, 39.7, 39.8, 39.9, 40.0, 40.1, 40.2, 40.3, 40.4, 40.5, 40.6, 40.7, 40.8, 40.9, 41.0, 41.1, 41.2, 41.3, 41.4, 41.5, 41.6, 41.7, 41.8, 41.9, 42.0, 42.1, 42.2, 42.3, 42.4, 42.5, 42.6, 42.7, 42.8, 42.9, 43.0, 43.1, 43.2, 43.3, 43.4, 43.5, 43.6, 43.7, 43.8, 43.9, 44.0, 44.1, 44.2, 44.3, 44.4, 44.5, 44.6, 44.7, 44.8, 44.9, 45.0, 45.1, 45.2, 45.3, 45.4, 45.5, 45.6, 45.7, 45.8, 45.9, 46.0, 46.1, 46.2, 46.3, 46.4, 46.5, 46.6, 46.7, 46.8, 46.9, 47.0, 47.1, 47.2, 47.3, 47.4, 47.5, 47.6, 47.7, 47.8, 47.9, 48.0, 48.1, 48.2, 48.3, 48.4, 48.5, 48.6, 48.7, 48.8, 48.9, 49.0, 49.1, 49.2, 49.3, 49.4, 49.5, 49.6, 49.7, 49.8, 49.9, 50.0, 50.1, 50.2, 50.3, 50.4, 50.5, 50.6, 50.7, 50.8, 50.9, 51.0, 51.1, 51.2, 51.3, 51.4, 51.5, 51.6, 51.7, 51.8, 51.9, 52.0, 52.1, 52.2, 52.3, 52.4, 52.5, 52.6, 52.7, 52.8, 52.9, 53.0, 53.1, 53.2, 53.3, 53.4, 53.5, 53.6, 53.7, 53.8, 53.9, 54.0, 54.1, 54.2, 54.3, 54.4, 54.5, 54.6, 54.7, 54.8, 54.9, 55.0, 55.1, 55.2, 55.3, 55.4, 55.5, 55.6, 55.7, 55.8, 55.9, 56.0, 56.1, 56.2, 56.3, 56.4, 56.5, 56.6, 56.7, 56.8, 56.9, 57.0, 57.1, 57.2, 57.3, 57.4, 57.5, 57.6, 57.7, 57.8, 57.9, 58.0, 58.1, 58.2, 58.3, 58.4, 58.5, 58.6, 58.7, 58.8, 58.9, 59.0, 59.1, 59.2, 59.3, 59.4, 59.5, 59.6, 59.7, 59.8, 59.9, 60.0, 60.1, 60.2, 60.3, 60.4, 60.5, 60.6, 60.7, 60.8, 60.9, 61.0, 61.1, 61.2, 61.3, 61.4, 61.5, 61.6, 61.7, 61.8, 61.9, 62.0, 62.1, 62.2, 62.3, 62.4, 62.5, 62.6, 62.7, 62.8, 62.9, 63.0, 63.1, 63.2, 63.3, 63.4, 63.5, 63.6, 63.7, 63.8, 63.9, 64.0, 64.1, 64.2, 64.3, 64.4, 64.5, 64.6, 64.7, 64.8, 64.9, 65.0, 65.1, 65.2, 65.3, 65.4, 65.5, 65.6, 65.7, 65.8, 65.9, 66.0, 66.1, 66.2, 66.3, 66.4, 66.5, 66.6, 66.7, 66.8, 66.9, 67.0, 67.1, 67.2, 67.3, 67.4, 67.5, 67.6, 67.7, 67.8, 67.9, 68.0, 68.1, 68.2, 68.3, 68.4, 68.5, 68.6, 68.7, 68.8, 68.9, 69.0, 69.1, 69.2, 69.3, 69.4, 69.5, 69.6, 69.7, 69.8, 69.9, 70.0, 70.1, 70.2, 70.3, 70.4, 70.5, 70.6, 70.7, 70.8, 70.9, 71.0, 71.1, 71.2, 71.3, 71.4, 71.5, 71.6, 71.7, 71.8, 71.9, 72.0, 72.1, 72.2, 72.3, 72.4, 72.5, 72.6, 72.7, 72.8, 72.9, 73.0, 73.1, 73.2, 73.3, 73.4, 73.5, 73.6, 73.7, 73.8, 73.9, 74.0, 74.1, 74.2, 74.3, 74.4, 74.5, 74.6, 74.7, 74.8, 74.9, 75.0, 75.1, 75.2, 75.3, 75.4, 75.5, 75.6, 75.7, 75.8, 75.9, 76.0, 76.1, 76.2, 76.3, 76.4, 76.5, 76.6, 76.7, 76.8, 76.9, 77.0, 77.1, 77.2, 77.3, 77.4, 77.5, 77.6, 77.7, 77.8, 77.9, 78.0, 78.1, 78.2, 78.3, 78.4, 78.5, 78.6, 78.7, 78.8, 78.9, 79.0, 79.1, 79.2, 79.3, 79.4, 79.5, 79.6, 79.7, 79.8, 79.9, 80.0, 80.1, 80.2, 80.3, 80.4, 80.5, 80.6, 80.7, 80.8, 80.9, 81.0, 81.1, 81.2, 81.3, 81.4, 81.5, 81.6, 81.7, 81.8, 81.9, 82.0, 82.1, 82.2, 82.3, 82.4, 82.5, 82.6, 82.7, 82.8, 82.9, 83.0, 83.1, 83.2, 83.3, 83.4, 83.5, 83.6, 83.7, 83.8, 83.9, 84.0, 84.1, 84.2, 84.3, 84.4, 84.5, 84.6, 84.7, 84.8, 84.9, 85.0, 85.1, 85.2, 85.3, 85.4, 85.5, 85.6, 85.7, 85.8, 85.9, 86.0, 86.1, 86.2, 86.3, 86.4, 86.5, 86.6, 86.7, 86.8, 86.9, 87.0, 87.1, 87.2, 87.3, 87.4, 87.5, 87.6, 87.7, 87.8, 87.9, 88.0, 88.1, 88.2, 88.3, 88.4, 88.5, 88.6, 88.7, 88.8, 88.9, 89.0, 89.1, 89.2, 89.3, 89.4, 89.5, 89.6, 89.7, 89.8, 89.9, 90.0, 90.1, 90.2, 90.3, 90.4, 90.5, 90.6, 90.7, 90.8, 90.9, 91.0, 91.1, 91.2, 91.3, 91.4, 91.5, 91.6, 91.7, 91.8, 91.9, 92.0, 92.1, 92.2, 92.3, 92.4, 92.5, 92.6, 92.7, 92.8, 92.9, 93.0, 93.1, 93.2, 93.3, 93.4, 93.5, 93.6, 93.7, 93.8, 93.9, 94.0, 94.1, 94.2, 94.3, 94.4, 94.5, 94.6, 94.7, 94.8, 94.9, 95.0, 95.1, 95.2, 95.3, 95.4, 95.5, 95.6, 95.7, 95.8, 95.9, 96.0, 96.1, 96.2, 96.3, 96.4, 96.5, 96.6, 96.7, 96.8, 96.9, 97.0, 97.1, 97.2, 97.3, 97.4, 97.5, 97.6, 97.7, 97.8, 97.9, 98.0, 98.1, 98.2, 98.3, 98.4, 98.5, 98.6, 98.7, 98.8, 98.9, 99.0, 99.1, 99.2, 99.3, 99.4, 99.5, 99.6, 99.7, 99.8, 99.9, 100.0, 100.1, 100.2, 100.3, 100.4, 100.5, 100.6, 100.7, 100.8, 100.9, 101.0, 101.1, 101.2, 101.3, 101.4, 101.5, 101.6, 101.7, 101.8, 101.9, 102.0, 102.1, 102.2, 102.3, 102.4, 102.5, 102.6, 102.7, 102.8, 102.9, 103.0, 103.1, 103.2, 103.3, 103.4, 103.5, 103.6, 103.7, 103.8, 103.9, 104.0, 104.1, 104.2, 104.3, 104.4, 104.5, 104.6, 104.7, 104.8, 104.9, 105.0, 105.1, 105.2, 105.3, 105.4, 105.5, 105.6, 105.7, 105.8, 105.9, 106.0, 106.1, 106.2, 106.3, 106.4, 106.5, 106.6, 106.7, 106.8, 106.9, 107.0, 107.1, 107.2, 107.3, 107.4, 107.5, 107.6, 107.7, 107.8, 107.9, 108.0, 108.1, 108.2, 108.3, 108.4, 108.5, 108.6, 108.7, 108.8, 108.9, 109.0, 109.1, 109.2, 109.3, 109.4, 109.5, 109.6, 109.7, 109.8, 109.9, 110.0, 110.1, 110.2, 110.3, 110.4, 110.5, 110.6, 110.7, 110.8, 110.9, 111.0, 111.1, 111.2, 111.3, 111.4, 111.5, 111.6, 111.7, 111.8, 111.9, 112.0, 112.1, 112.2, 112.3, 112.4, 112.5, 112.6, 112.7, 112.8, 112.9, 113.0, 113.1, 113.2, 113.3, 113.4, 113.5, 113.6, 113.7, 113.8, 113.9, 114.0, 114.1, 114.2, 114.3, 114.4, 114.5, 114.6, 114.7, 114.8, 114.9, 115.0, 115.1, 115.2, 115.3, 115.4, 115.5, 115.6, 115.7, 115.8, 115.9, 116.0, 116.1, 116.2, 116.3, 116.4, 116.5, 116.6, 116.7, 116.8, 116.9, 117.0, 117.1, 117.2, 117.3, 117.4, 117.5, 117.6, 117.7, 117.8, 117.9, 118.0, 118.1, 118.2, 118.3, 118.4, 118.5, 118.6, 118.7, 118.8, 118.9, 119.0, 119.1, 119.2, 119.3, 119.4, 119.5, 119.6, 119.7, 119.8, 119.9, 120.0, 120.1, 120.2, 120.3, 120.4, 120.5, 120.6, 120.7, 120.8, 120.9, 121.0, 121.1, 121.2, 121.3, 121.4, 121.5, 121.6, 121.7, 121.8, 121.9, 122.0, 122.1, 122.2, 122.3, 122.4, 122.5, 122.6, 122.7, 122.8, 122.9, 123.0, 123.1, 123.2, 123.3, 123.4, 123.5, 123.6, 123.7, 123.8, 123.9, 124.0, 124.1, 124.2, 124.3, 124.4, 124.5, 124.6, 124.7, 124.8, 124.9, 125.0, 125.1, 125.2, 125.3, 125.4, 125.5, 125.6, 125.7, 125.8, 125.9, 126.0, 126.1, 126.2, 126.3, 126.4, 126.5, 126.6, 126.7, 126.8, 126.9, 127.0, 127.1, 127.2, 127.3, 127.4, 127.5, 127.6, 127.7, 127.8, 127.9, 128.0, 128.1, 128.2, 128.3, 128.4, 128.5, 128.6, 128.7, 128.8, 128.9, 129.0, 129.1, 129.2, 129.3, 129.4, 129.5, 129.6, 129.7, 129.8, 129.9, 130.0, 130.1, 130.2, 130.3, 130.4, 130.5, 130.6, 130.7, 130.8, 130.9, 131.0, 131.1, 131.2, 131.3, 131.4, 131.5, 131.6, 131.7, 131.8, 131.9, 132.0, 132.1, 132.2, 132.3, 132.4, 132.5, 132.6, 132.7, 132.8, 132.9, 133.0, 133.1, 133.2, 133.3, 133.4, 133.5, 133.6, 133.7, 133.8, 133.9, 134.0, 134.1, 134.2, 134.3, 134.4, 134.5, 134.6, 134.7, 134.8, 134.9, 135.0, 135.1, 135.2, 135.3, 135.4, 135.5, 135.6, 135.7, 135.8, 135.9, 136.0, 136.1, 136.2, 136.3, 136.4, 136.5, 136.6, 136.7, 136.8, 136.9, 137.0, 137.1, 137.2, 137.3, 137.4, 137.5, 137.6, 137.7, 137.8, 137.9, 138.0, 138.1, 138.2, 138.3, 138.4, 138.5, 138.6, 138.7, 138.8, 138.9, 139.0, 139.1, 139.2, 139.3, 139.4, 139.5, 139.6, 139.7, 139.8, 139.9, 140.0, 140.1, 140.2, 140.3, 140.4, 140.5, 140.6, 140.7, 140.8, 140.9, 141.0, 141.1, 141.2, 141.3, 141.4, 141.5, 141.6, 141.7, 141.8, 141.9, 142.0, 142.1, 142.2, 142.3, 142.4, 142.5, 142.6, 142.7, 142.8, 142.9, 143.0, 143.1, 143.2, 143.3, 143.4, 143.5, 143.6, 143.7, 143.8, 143.9, 144.0, 144.1, 144.2, 144.3, 144.4, 144.5, 144.6, 144.7, 144.8, 144.9, 145.0, 145.1, 145.2, 145.3, 145.4, 145.5, 145.6, 145.7, 145.8, 145.9, 146.0, 146.1, 146.2, 146.3, 146.4, 146.5, 146.6, 146.7, 146.8, 146.9, 147.0, 147.1, 147.2, 147.3, 147.4, 147.5, 147.6, 147.7, 147.8, 147.9, 148.0, 148.1, 148.2, 148.3, 148.4, 148.5, 148.6, 148.7, 148.8, 148.9, 149.0, 149.1, 149.2, 149.3, 149.4, 149.5, 149.6, 149.7, 149.8, 149.9, 150.0, 150.1, 150.2, 150.3, 150.4, 150.5, 150.6, 150.7, 150.8, 150.9, 151.0, 151.1, 151.2, 151.3, 151.4, 151.5, 151.6, 151.7, 151.8, 151.9, 152.0, 152.1, 152.2, 152.3, 152.4, 152.5, 152.6, 152.7, 152.8, 152.9, 153.0, 153.1, 153.2, 153.3, 153.4, 153.5, 153.6, 153.7, 153.8, 153.9, 154.0, 154.1, 154.2, 154.3, 154.4, 154.5, 154.6, 154.7, 154.8, 154.9, 155.0, 155.1, 155.2, 155.3, 155.4, 155.5, 155.6, 155.7, 155.8, 155.9, 156.0, 156.1, 156.2, 156.3, 156.4, 156.5, 156.6, 156.7, 156.8, 156.9, 157.0, 157.1, 157.2, 157.3, 157.4, 157.5, 157.6, 157.7, 157.8, 157.9, 158.0, 158.1, 158.2, 158.3, 158.4, 158.5, 158.6, 158.7, 158.8, 158.9, 159.0, 159.1, 159.2, 159.3, 159.4, 159.5, 159.6, 159.7, 159.8, 159.9, 160.0, 160.1, 160.2, 160.3, 160.4, 160.5, 160.6, 160.7, 160.8, 160.9, 161.0, 161.1, 161.2, 161.3, 161.4, 161.5, 161.6, 161.7, 161.8, 161.9, 162.0, 162.1, 162.2, 162.3, 162.4, 162.5, 162.6, 162.7, 162.8, 162.9, 163.0, 163.1, 163.2, 163.3, 163.4, 163.5, 163.6, 163.7, 163.8, 163.9, 164.0, 164.1, 164.2, 164.3, 164.4, 164.5, 164.6, 164.7, 164.8, 164.9, 165.0, 165.1, 165.2, 165.3, 165.4, 165.5, 165.6, 165.7, 165.8, 165.9, 166.0, 166.1, 166.2, 166.3, 166.4, 166.5, 166.6, 166.7, 166.8, 166.9, 167.0, 167.1, 167.2, 167.3, 167.4, 167.5, 167.6, 167.7, 167.8, 167.9, 168.0, 168.1, 1



TRAVERSE SURVEY- NORTH. RIVERS REGION

3

*1 SHEET = 1 TRANSECT

STATE FOREST <i>Girard</i>		M.A. <i>Casino</i>		COMPT. <i>34</i>	
OBSERVER(S) <i>D. Stewart, B. Thornhill</i>		DATE FROM <i>10/8/98</i> DATE TO		REGION CODE <i>461</i>	
TIME	Start Time <i>1510</i>	Finish Time <i>1605</i>		Total Travel Time <i>55 min</i>	
SURVEY NAME & LOCATION DETAILS <i>Start 34 1/2 Rd (half way along) and traverse SW below ridge and sloping steeply to south</i>					
AMG	Start	Easting <i>434380</i>		Finish	Easting <i>433910</i>
COORDINATES		Northing <i>6799650</i>			Northing <i>6799180</i>
THREATENED FLORA		Species Possible			
OBSERVATIONS		<i>RB, PW, YLG Sq G TQ RG, Sq+K, GBC, PO, K.</i>			
TRANSECT DISTANCE	FLORA SPECIES	NUMBER	AREA SIZE	SITE DESCRIPTION &/OR EVIDENCE OF DISTURBANCE	MAP NOTED?
THREATENED FAUNA - SIGHTING OR FEATURE#					
TRANSECT DISTANCE	SPECIES OR FEATURE TYPE	NUMBER	SITE DESCRIPTION (MICROHABITAT)		MAP NOTED?
	<i>Glossy Black Cockatoo 1M, 2F. Dry sclerophyll forest (forest type 62). Feeding on nuts of Allocasuarina (very poor stunted mature Allocasuarina seem to have retarded growth because of low nutrient soils) 434280, 6799600</i>				
#THREATENED SPECIES FEATURES					
<ul style="list-style-type: none">• DIURNAL BIRD spp• TIGER QUOLL LATRINE AND DEN SITES• NESTS, DENS & ROOSTS OF LARGE BIRDS, (RAPTORS & OWLS) BATS, & HOLLOW DEPENDENT SPECIES• GLOSSY BLACK COCKATOO, ALBERTS LYREBIRD & BUSH THICK-KNEE NESTS• OWL PELLETS (& WHITE WASH)			<ul style="list-style-type: none">• DIURNAL BIRD spp• CAVES, TUNNELS & DISUSED MINES• DISTINCTIVE SCATS (TIQU, KOAL, & BRUSH-TAILED ROCK WALLABY)• PERMANENT SOAKS AND SEEPAGES• YEBG 'V-NOTCH' TREES		
GENERAL COMMENTS* & ARCHAEOLOGICAL ARTEFACTS		*RECORD FEATURES: EG. UNMAPPED CHANGE IN STRATA OR FOREST TYPE, ROCKY OUTCROPS ETC.			
TRANSECT DISTANCE	OBSERVATION OF				MAP NOTED?
<i>500 m</i>	<i>Evidence of severe Fire. Good stages. Few large trees with hollows. Limited habitat of black / tussock grass for R.B. Casuarinas poor growth but some heavily bearing cones for GBC. South of E. Grey Kangaroo & Red-necked wallaby noted</i>			<i>Yes</i>	
	<i>Bandicoot droppings -</i>				



SPOTLIGHT TRANSECT - NORTHERN RIVERS REGION

1

STATE FOREST	GIRARD SE		M.A.	CASINO	COMPT.	34
OBSERVER(S)	D. Stewart J. Russell B. Thornhill		DATE FROM	4/8/98	REGION	
SURVEY NAME	pre-harvest		DATE TO	10/8/98	CODE	461
DETECTION METHOD(S)	<input type="checkbox"/> vehicular transect <input type="checkbox"/> foot transect		Census No(s).....	Notes:		
Species Targeted	Y-B.C. Sq G K P D M D S O T R B P W					
TRANSECT DETAILS						
Location Description		Start 500m along Junction Fire Trail to				
Total Distance	600m					
AMG	Start	Easting	434720	Finish	Easting	434320
COORDINATES		Northing	6799600		Northing	6799050
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)	62, 122a					
CENSUS 1						
TIME	Start Time	7:25 pm	Finish Time	8:00 pm	Total Travel Time	3/4 hr
WEATHER	Temperature	12°C	Relative Humidity		Time	7:25 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 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						
TIME	Start Time	7:00 pm	Finish Time	7:40 pm	Total Travel Time	40 min
WEATHER	Temperature	11°C	Relative Humidity		Time	7:00 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 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					
OBSERVATIONS						
DIST.	CENSUS NO.	SPECIES	OBS. TYPE	DIST. from TRANS	Count	NOTES (AMGs for S1&S2 spp, note if count is an estimate)
300m	1	Greater Glider	Sighted	10m	1	270°
400m	1	Litoria verreauxii	Call	175m	2	Calling from creek 120°
400m	1	Crinia signifera	Call	75m	5	" 120°
600m	1	Possible Nyctophilus sp.	Call	20m	1	100-120°
50m	2	Greater Glider	O	5m	1	Overhead
75m	2	Tawny Frogmouth	W	50m	1	310°

PAGE 1 of 2 SKETCH MAP OVERLEAF? YES / NO

SPOTLIGHT



SPOTLIGHT TRANSECT - NORTHERN RIVERS REGION

2

STATE FOREST	GIRARD	M.A.	CASINO	COMPT.	34	
OBSERVER(S)	J. Stewart J. Russell B. Thornhill	DATE FROM	4/8/93	REGION		
		DATE TO	10/8/98	CODE	461	
SURVEY NAME	Pre-harvest	NUMBER OF TRANSECTS	1			
DETECTION METHOD(S)	<input type="checkbox"/> vehicular transect Census No(s)..... Notes: <input checked="" type="checkbox"/> foot transect Census No(s)..... 1.....					
Species Targeted	PO SO MD K 7.56 96 10 RB PW					
TRANSECT DETAILS						
Location Description		Ridge along 34/2 Rd. bearing N.E.				
Total Distance		700m				
AMG	Start	Easting	433750	Finish	Easting 434380	
COORDINATES		Northing	6799200		Northing 6799650	
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)	62, 163 b					
CENSUS 1						
TIME	Start Time	10:10 pm	Finish Time	11:05 pm	Total Travel Time 55 mins	
WEATHER	Temperature	12°C	Relative Humidity		Time 10:10 am / pm	
Wind	<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 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						
TIME	Start Time	9:20 pm	Finish Time	10:10 pm	Total Travel Time 50 min	
WEATHER	Temperature	10.5°C	Relative Humidity		Time 9:20 am / pm	
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 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 type="checkbox"/> detail seen - moon and clear sky <input type="checkbox"/> dark - quarter moon or moon with heavy cloud <input checked="" type="checkbox"/> bright - half moon or more and no cloud					
OBSERVATIONS						
DIST.	CENSUS NO.	SPECIES	OBS. TYPE	DIST. from TRANS	Count	NOTES (AMGs for S1&S2 spp, note if count is an estimate)
150m	1	Greater Glider	Sighted	0m	1	On tree overhanging transect path.
600m	1	Myctophiles sp. (probable)	call	50m	1	
150m	2	Red-necked Wallaby	O	40m	1	30°
500m	2	Grey Goshawk	O	50m	1	AE perched 320°
550m	2	Eastern Grey Kangaroo	O	75m	1	350°



CALL PLAYBACK - NORTHERN RIVERS REGION

(1)

STATE FOREST <u>GIRARD SF</u>		M.A. <u>CASINO</u>		COMPT. <u>34</u>		
OBSERVER(S) <u>D. Stewart B. Thornhill</u>		DATE FROM <u>4/8/98</u>		REGION <u>461</u>		
DATE TO <u>16/8/98</u>		CODE <u>461</u>				
SURVEY NAME <u>Pre-logging</u>		Part of Spotlight Transect? YES/NO specify... <u>N. end Junction Fire Trail</u>				
DETECTION METHOD(S)		<input checked="" type="checkbox"/> arboreal mammals <input type="checkbox"/> diurnal birds <input type="checkbox"/> other				
		<input checked="" type="checkbox"/> nocturnal birds				
Sp. Targeted/Calls Played		<u>PO BO MO SO KY-bb Sq6</u> <u>MO not played 10/8/98</u>				
SITE(S) - AMG Site.....		Easting <u>434720</u>		Notes.....		
COORDINATES Zone		Northing <u>6799600</u>				
BROAD HABITAT TYPE (1 only)		Rainforest Sclerophyll Woodland				
		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"/>		
				Shrub Woodland <input type="checkbox"/>		
				Heath Woodland <input type="checkbox"/>		
				Tall Woodland <input type="checkbox"/>		
FOREST TYPE NUMBER(S)		<u>122a</u>				
LOCATION DESCRIPTION <u>500m S along The Junction Fire Trail From Bruxner Highway</u>						
CENSUS 1		Start Time: <u>1755</u>		Finish Time: <u>1910</u>		
WEATHER		Temperature <u>14.5°C</u>		Relative Humidity		
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 checked="" 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		
CENSUS 2		Start Time: <u>1755</u>		Finish Time: <u>1855</u>		
WEATHER		Temperature <u>12.5°C</u>		Relative Humidity		
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 checked="" 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		
OBSERVATION DETAILS						
CENSUS NO.	SPECIES	OBS. TYPE	COUNT	RESPONSE (ESTIMATE)		NOTES (appearance, sex, note if count an estimate, AMG of S1 or S2)
				DISTANCE	BEARING	
1	Masked Owl	W	1	250 (+) 100	50	434 900, 6799780
1	Sugar Glider	W	1	150 (+) 75	290	Called after Squirrel Glider playback
1	Owlet Nightjar	W	1	150 (+) 50	140	Called during Sooty Owl Playbacks
				(+)		
2	Southern Boobak	W	1	400 (+) 100	175	Calling before & during PO
2	Grey-headed Flying Fox	W	2	100 (+) 50	100	Called during SO
2	Tawny Frogmouth	W	1	50 (+) 10	240	Called during and after Y-b G
2	Owlet Nightjar	W	1	100 (+) 25	130	Called during Sq G

PAGE 1 of 1 SKETCH MAP OVERLEAF? YES/NO

CALL PLAYBACK



CALL PLAYBACK - NORTHERN RIVERS REGION

2

STATE FOREST	Girard SF		M.A.	Casino		COMPT.	34	
OBSERVER(S)	D. Stewart J. Russell B. Thornhill		DATE FROM	4/8/98		REGION	461	
SURVEY NAME	Pre-logging		DATE TO	10/8/98		CODE	461	
DETECTION METHOD(S)	<input checked="" type="checkbox"/> arboreal mammals <input checked="" type="checkbox"/> nocturnal birds		Part of Spotlight Transect? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		specify... W. end 34 1/2 Rd			
Species Targeted	PO BO MO SO K 756 S		Calls Played					
SITE(S) - AMG	Site.....	Easting	434720		Notes.....			
COORDINATES	Zone	Northing	6799600					
BROAD HABITAT TYPE (1 only)	Rainforest		Sclerophyll		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)	62							
LOCATION DESCRIPTION	100 m along 34 1/2 Rd near Beech Rd end.							
CENSUS 1	Start Time:	2050	Finish Time:	2205	Total Travel Time 1hr 15min			
WEATHER	Temperature	12°C	Relative Humidity	Time 2050 am / pm				
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"/> rain during survey		<input type="checkbox"/> evidence of rain in last 24 hrs		<input type="checkbox"/> strong - impedes progress			
Rain	<input type="checkbox"/> very dark - no moon+cloud		<input type="checkbox"/> dark - quarter moon or moon with heavy cloud		<input checked="" type="checkbox"/> no evidence of rain in the last 24 hrs			
Night light	<input type="checkbox"/> detail seen - moon and clear sky		<input type="checkbox"/> bright - half moon or more and no cloud					
CENSUS 2	Start Time:	2005	Finish Time:	2115	Total Travel Time 1hr 10min			
WEATHER	Temperature	11.5°C	Relative Humidity	Time 2005 am / pm				
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"/> rain during survey		<input type="checkbox"/> evidence of rain in last 24 hrs		<input type="checkbox"/> strong - impedes progress			
Rain	<input type="checkbox"/> very dark - no moon+cloud		<input type="checkbox"/> dark - quarter moon or moon with heavy cloud		<input checked="" type="checkbox"/> no evidence of rain in the last 24 hrs			
Night light	<input type="checkbox"/> detail seen - moon and clear sky		<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		
4/8	1	Nil response			(+/-)			
					(+/-)			
10/8	2	Owlet Nightjar	W	1	200 (+/-)	50 15°	Called during PO	
	2	Powerful Owl	W	AM	450 (+/-)	100 185°	Called after BO	
	2	Owlet Nightjar	W	1	150 (+/-)	50 110°	433630 6798820 Called during MO	
					(+/-)			
					(+/-)			
					(+/-)			

PAGE 1 of 1 SKETCH MAP OVERLEAF? YES / NO

CALL PLAYBACK



SCATS - NORTHERN RIVERS REGION

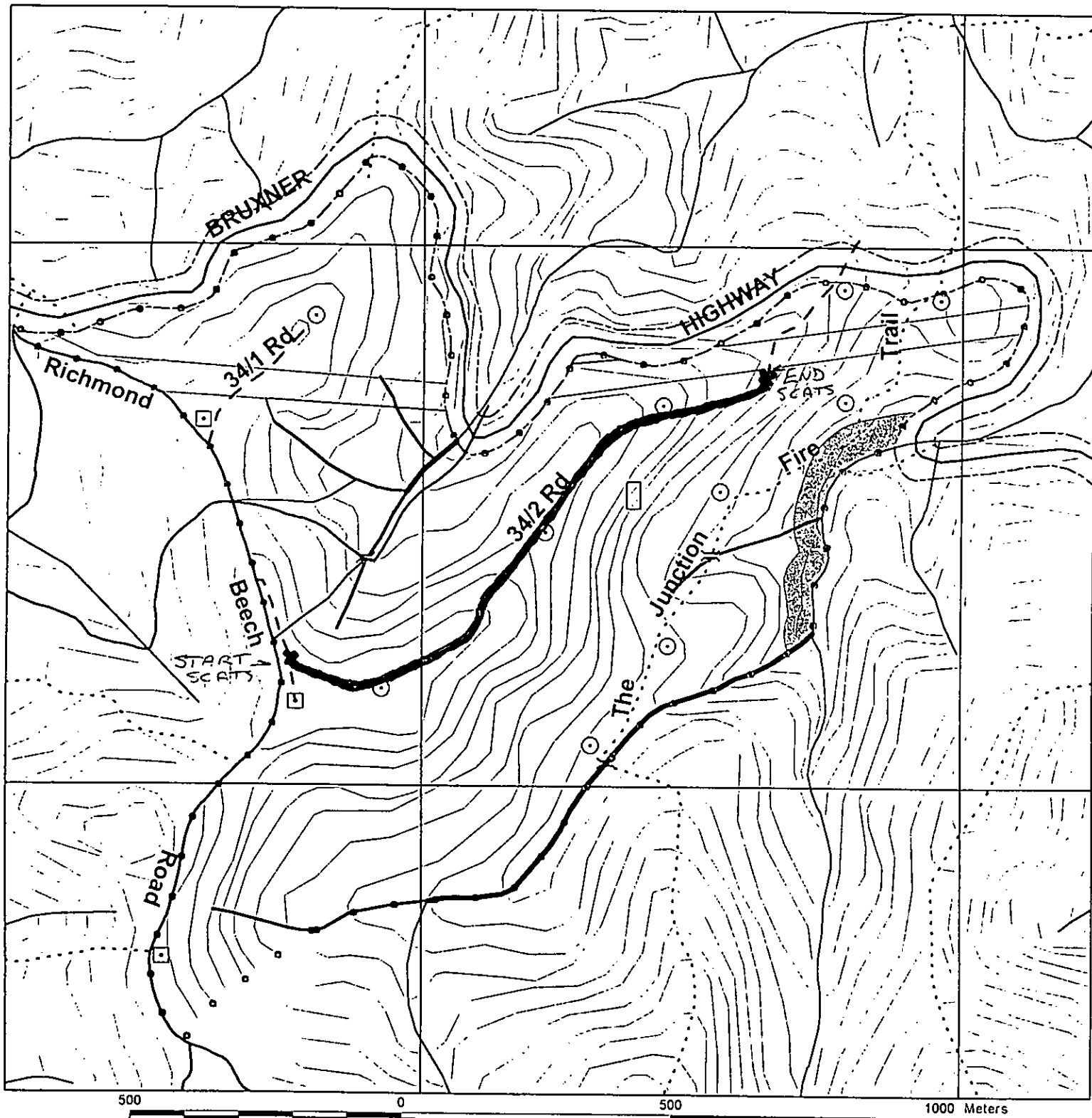
STATE FOREST <u>GIRARD</u>		M.A. <u>TENTERFIELD</u>		COMPT. <u>34</u>		
OBSERVER(S) <u>K. HARVEY B. THORNHILL</u>		DATE <u>7-8-98</u>		REGION CODE <u>461</u>		
SURVEY NAME				TRANSECT LENGTH <u>400m</u>		
Time Start <u>2:00</u>	Time Finish <u>2:30</u>	Total Travel Time		Species Targeted		
DETECTION METHOD(S)		1 Km road transect per 200 ha net logging area				
BROAD HABITAT TYPE		Rainforest		Sclerophyll		
		<input type="checkbox"/> Subtropical		<input type="checkbox"/> Wet Sclerophyll		
		<input type="checkbox"/> Dry		<input type="checkbox"/> Dry Sclerophyll		
		<input type="checkbox"/> Temperate		<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)						
AMG	Start	Easting	Finish	Easting		
COORDINATES		Northing		Northing		
Location Description						
SAMPLE DETAILS						
DISTANCE	SAMPLE ID	SPECIES	OBS TYPE scat / in scat or track	PROBABILITY STATUS 1 = definite 2 = probable 3 = possible	ANALYST	NOTES
<u>50m</u>	<u>1</u>	<u>Fox</u>		<u>1</u>		
<u>250m</u>	<u>2</u>	<u>Dog</u>		<u>1</u>		
SKETCH MAP (INCLUDE DRAINAGE, ROADS AND TRACKS, DISTANCES, BEARINGS)						
NORTH [TOP]						

Page 1 of 1.

NORTHERN RIVERS REGION - GLEN_NEW
DISTRICT
HARVEST PLAN OPERATIONAL MAP
COMPARTMENT 34
GIRARD STATE FOREST
UNKNOWN MAP SHEET
HARVEST PLAN NUMBER 0
SCALE 1:10000 27/07/1998

78+4+15+3

100ha.



BOUNDARIES
 - - - State Forest Boundary
 • • • Compartment Boundaries
ROADS (Proposed in Red)
 - - - Natural Surface
 - - - Sealed or Gravelled
 - - - Four wheel drive
NORMAL PRESCRIPTIONS
 [] Harvestable Area

MODIFIED PRESCRIPTIONS
 [] Flora and Fauna Protect
 [] Slopes likely over 30 degrees
 [] Rainforest
NON HARVEST AREAS
 [] General
DUMP SITES OR LANDINGS
 [] Permanent Dry
 [] Permanent Wet
 [] Temporary Dry

DUMP SITES OR LANDINGS
 [] Temporary Wet
WATERCOURSES & DRAINAGE
 [] External Drainage
 [] Original
 [] First Order
 [] Second Order
 [] Third Order
 [] Approved Crossings

MN
11

Givard S.F. 27-7-98

Preliminary survey / each location etc.

1. Seat transect of 1.2 km undertaken along 34/2 Road - 2 wheel tracks generally covered in leaf litter & tussock (Poa sp?). Condition after rain OK. Well used in higher ridge over by wild dogs & macropods (R/N wallaby sightings & scats). Also evidence of protected native plant removal (P. bifurcata fronds & section of D. speciosus orchid etc). Ringtail possum scats reasonably common in several areas as per seat transect sheet.

Short walk to identify local Enc. Sp. located Greater Glider scats away from road.

2. Junction fire trail was driven to assess ~~suitability~~ suitability for transect work & chainsaw ops. (not required). Trail may not be suited to repetitive use after heavy rain 27/7 & 28/7/98 until it has time to adequately dry out.

This trail is probably the most suitable site for playbacks & a Harp trap could be placed at the gully crossing about $\frac{2}{3}$ of the way in from the highway.

3. The junction of Bowbird & Beech Roads could provide a second "gully-head" site for playbacks.
4. Road 34/1 was checked & is passable but has reasonably dense vegetation along it.
5. The Harvestable area of compt. 11 was accessed - the trails should still be reasonably passable after rain if not over-used. Greater Glider & Ringtail scats were located under a white *Shadygrove* (?). Roadside rest area / garbage bins will probably act as a focus point for various scavenger sp. eg cats, dogs, foxes & some possums.
6. Survey washed out by heavy rain.

B. Thornhill N.



DIURNAL BIRDS - NORTHERN RIVERS REGION

(1)

STATE FOREST	Girard SE	M.A.	Casino	COMPT.	34	
OBSERVER(S)	D. Stewart	DATE FROM	11/8/98	REGION CODE	461	
SURVEY NAME	Pre-logging	DATE TO		NUMBER OF TRANSECTS/SITES	1	
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)		47 b				
METHODS	Walk	Travers Lead of First order stream in SW corner of compartment looking for PO roost site (previous playback record)				
CENSUS 1 - TRANSECT 1	Location Description Wet Forest gully in SW corner of					
Total Distance	400 m	Compartment				
Species Targeted	PO, MO, SO, RG, Y, b, G					
TIME	Start Time	0735	Finish Time	0820	Total Travel Time 45 mins	
AMG	Start	Easting	433500	Finish	Easting 433540	
COORDINATES		Northing	6798700		Northing 6798900	
WEATHER	Temperature	7.5°C	Relative Humidity		Time 0730 am / pm	
Wind	<input type="checkbox"/> calm <input type="checkbox"/> light - leaves rustle <input checked="" 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					
OBSERVATIONS						
DIST.	TRANS. NO.	SPECIES	OBS. TYPE	DIST. from TRANS	Count	NOTES (AMGs for S1&S2 spp, note if count is an estimate)
		Spotted Quail-thrush	O		2	Flushed off road at start of traverse
		Striated Thornbill	O/W		>50	
		White-browed Scrubwren	O/W		>5	
		Eastern Yellow Robin	W		1	
		Yellow-faced Honeyeater	W		>10	
		Laughing Kookaburra	W		2	
		Eastern Spinebill	O/W		2	
		Grey Shrike-thrush	W		1	
		Fan-tailed Cuckoo	W		1	
		Brown Thornbill	W		2	
		Spotted Pardalote	W		>5	
		White-throated Treecreeper	W		2	
		Grey Fantail	O		1	
		White-rumped Honeyeater	O/W		>5	

[illegible]

* Ken McCray - Fauna Co-ordinator suggested I do a list of all 2
 DIURNAL BIRD - SAMPLE REGION
 diurnal birds seen/heard throughout the survey, including Nocturnal birds

M.A. Casino		STATE FOREST Grard SF		COMPT. 34		
OBSERVER(S) D. Stewart		DATE FROM 4/8/98 DATE TO 11/8/98		REGION CODE 461		
SURVEY NAME		Transect Survey? <input checked="" type="checkbox"/> Point Survey? <input type="checkbox"/>				
DETECTION METHOD		<input checked="" type="checkbox"/> call playback / listening <input type="checkbox"/> other Traverse		Species Targeted RG, Sq+tk, GBC, SP RH, PO, N10, SO Calls Played		
AMG COORDINATES		Easting Nothing End (if transect)		Easting Nothing Northing Map Scale		
BROAD HABITAT TYPE (1 only)		Rainforest <input type="checkbox"/> Subtropical <input type="checkbox"/> Dry <input type="checkbox"/> Temperate <input type="checkbox"/> Sclerophyll <input type="checkbox"/> Wet Sclerophyll <input type="checkbox"/> Dry Sclerophyll <input checked="" type="checkbox"/> Swamp Sclerophyll <input type="checkbox"/> Woodland <input type="checkbox"/> Shrub Woodland <input type="checkbox"/> Subalpine Woodland <input type="checkbox"/> Heath Woodland <input type="checkbox"/> Open Grassy Wdland <input type="checkbox"/> Tall Woodland <input type="checkbox"/>				
FOREST TYPE NUMBER(S)		62, 60, 47, 74, 122				
LOCATION DESCRIPTION Birds seen/heard during all methodologies over survey period.						
CENSUS 1:		Start Time:		Finish Time:		
WEATHER		Temperature: Dry Wet		Relative Humidity (optional): %		
Wind (1 only for all)		<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		
CENSUS 2:		Start Time:		Finish Time:		
WEATHER		Temperature: Dry Wet		Relative Humidity (optional): %		
Wind (1 only for all)		<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		
OBSERVATION DETAILS						
DATE	SPECIES	OBS. TYPE	COUNT	OBSERVATIONS		NOTES (appearance, sex, note if count an estimate)
	Yellow-tailed Black Cockatoo			DISTANCE	BEARING	
	Southern Boobook			(-/-)		
	Satin Bowerbird			(-/-)		
	Grey Butcherbird			(-/-)		
	White-winged Chough			(-/-)		
	Sulphur-crested Cockatoo			(-/-)		
	Torresian Crow			(-/-)		
	Fan-tailed Cockatoo			(-/-)		
	Pied Currawong			(-/-)		
	Peaceful Dove			(-/-)		

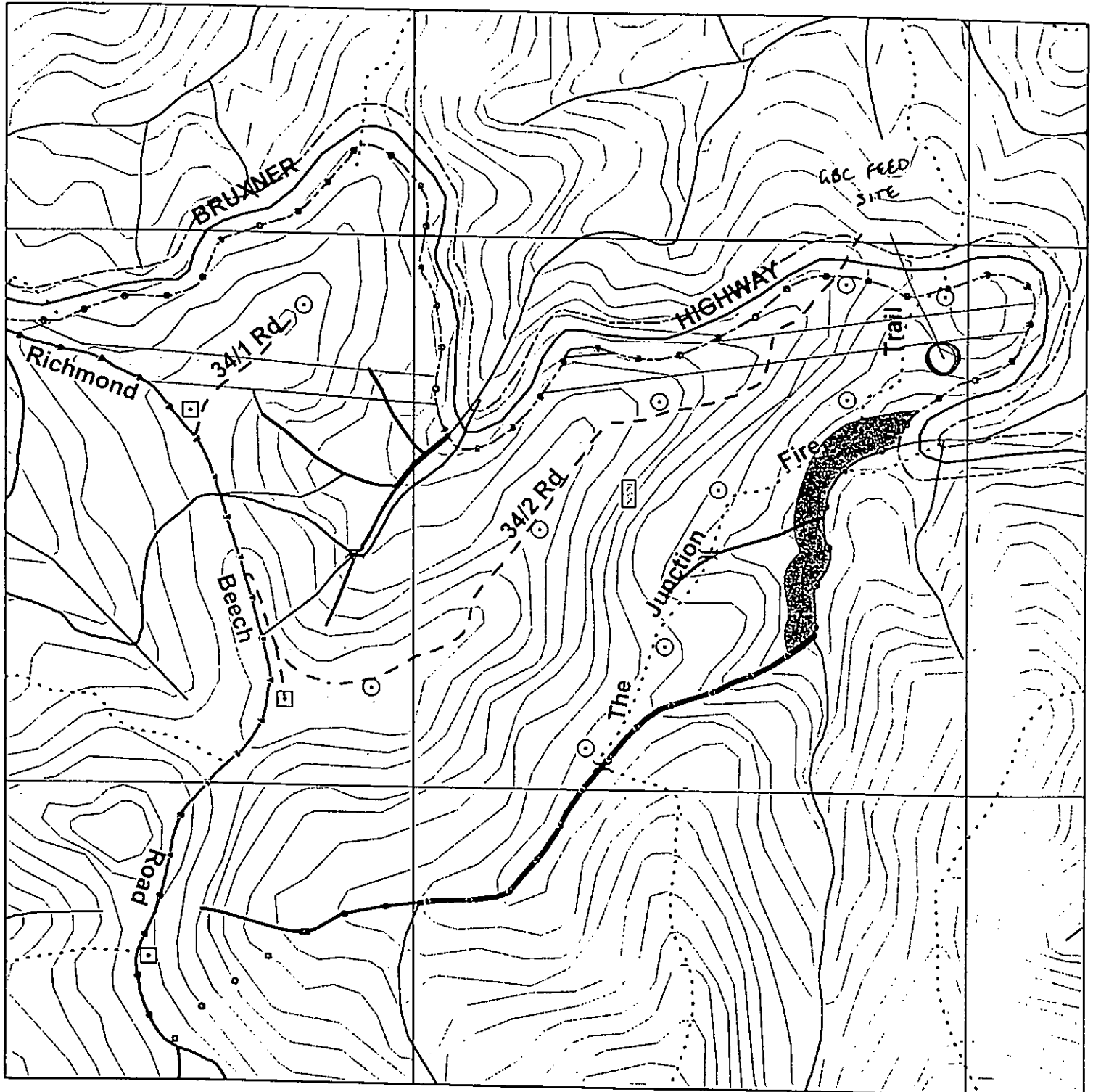
(2)

OBSERVER(S) D. Stewart					DATE	
OBSERVATIONS						
DIST.	TRANS. NO.	SPECIES	OBS. TYPE	DIST. from TRANS	Count	NOTES (AMGs for S1&S2 spp)
		Superb Fairy-wren				
		Grey Fantail				
		Red-browed Finch				
		Noisy Friarbird				
		Tawny Frogmouth				
		Grey Goshawk	0		1	Spot lighted
		Lewin's Honeyeater				
		White-naped Honeyeater				
		Yellow-faced Honeyeater				
		Laughing Kookaburra				
		Masked Lapwing				
		Rainbow Lorikeet				
		Australian Magpie				
		Olive-backed Oriole				
		Australian Owlet-nightjar				
		Spotted Pardalote				
		Striated Pardalote				
		Spotted Quail-thrush				Flushed from tracks/road three times.
		Australian Raven				
		Eastern Yellow Robin				
		Crimson Rosella				

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

NORTH
[TOP]

NORTHERN RIVERS REGION - GLEN_NEW
DISTRICT
HARVEST PLAN OPERATIONAL MAP
COMPARTMENT 34
GIRARD STATE FOREST
UNKNOWN MAP SHEET
HARVEST PLAN NUMBER 0
SCALE 1:10000 07/08/1998



- | | | |
|---|---|--|
| <p>BOUNDARIES</p> <p>--- State Forest Boundary</p> <p>□ Compartment Boundaries</p> <p>ROADS (Proposed in Red)</p> <p>--- Natural Surface</p> <p>--- Sealed or Gravelled</p> <p>--- Four wheel drive</p> <p>NORMAL PRESCRIPTIONS</p> <p>□ Harvestable Area</p> <p>MODIFIED PRESCRIPTIONS</p> | <p>MODIFIED PRESCRIPTIONS</p> <p>■ Flora and Fauna Protect</p> <p>■ Slopes likely over 30 degrees</p> <p>■ Rainforest</p> <p>NON HARVEST AREAS</p> <p>□ General</p> <p>DUMP SITES OR LANDINGS</p> <p>⊗ Permanent Dry</p> <p>⊗ Permanent Wet</p> <p>○ Temporary Dry</p> | <p>DUMP SITES OR LANDINGS</p> <p>□ Temporary Wet</p> <p>WATERCOURSES & DRAINAGE</p> <p>--- External Drainage</p> <p>--- Original</p> <p>--- First Order</p> <p>--- Second Order</p> <p>--- Third Order</p> <p>⊗ Approved Crossings</p> |
|---|---|--|

MN

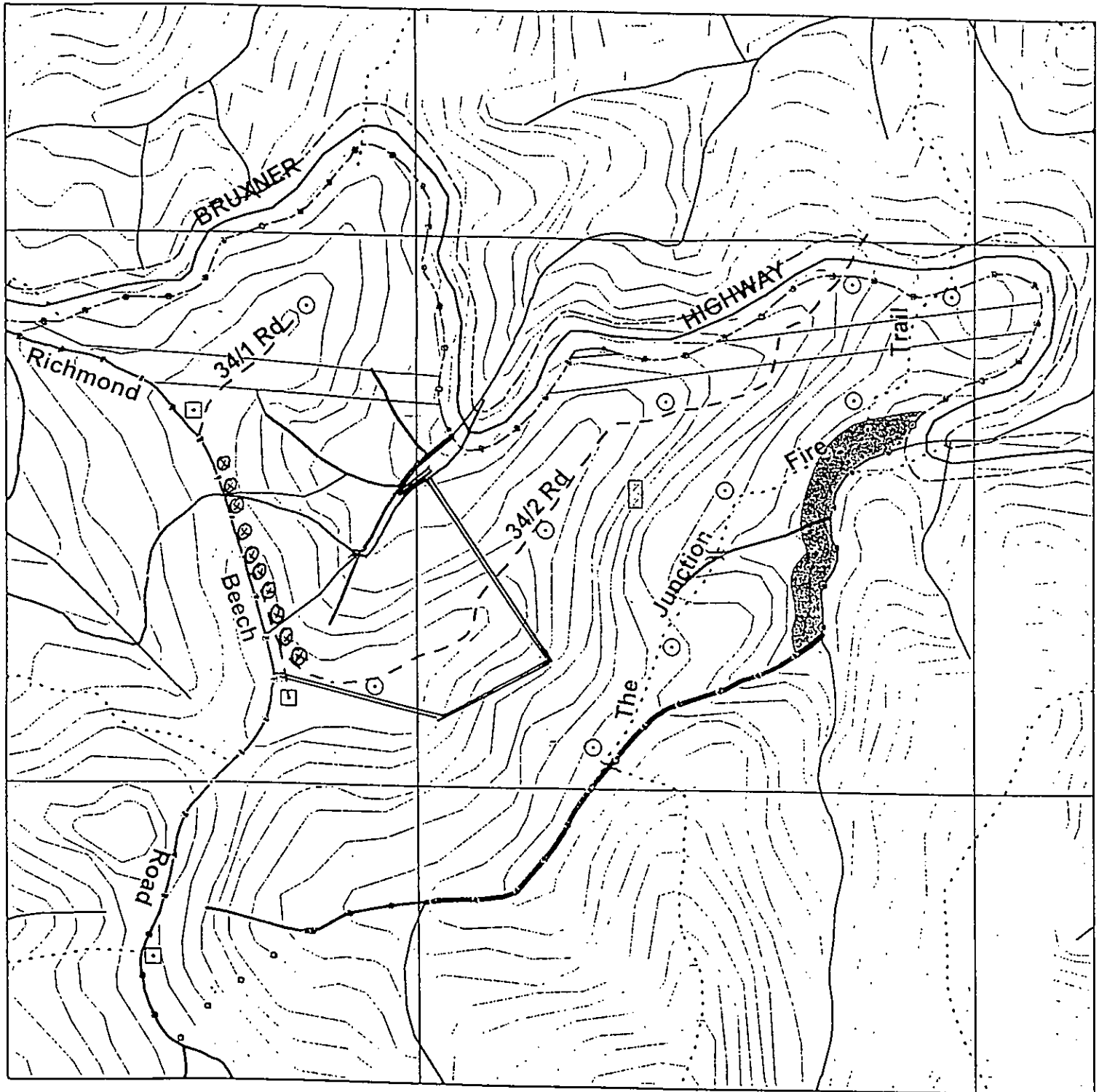
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TRVS-KLA.doc

TRAVERSE SURVEY (CONTINUED)						KOALA SURVEY (CONTINUED)		
OBSERVER(S)		DATE		NO. _____ OF _____		5 TREES PER 50 M 1KM PER 100HA		
THREATENED FLORA - OBSERVATIONS						300		
SPECIES SEARCHED FOR						TREE SPECIES	DBH (approx)	SCATS or OTHER
TRANSECT DISTANCE	FLORA SPECIES	NUMBER	AREA SIZE	SITE DESCRIPTION & SITE DISTURBANCE (?)	MAP/AMG NOTED?	51 W.M	20-40	
						52 W.M	20-40	
						53 W.M	40-60	
						54 T.W.D	20-40	
						55 O.H.K	20-40	550 M
						56 T.W.D	20-40	Wallaby
						57 T.W.D	20-40	"
						58 T.W.D	20-40	"
						59 G.G	20-40	
						60 T.W.D	20-40	600 M
						61 G.G	20-40	
						62 T.W.D	40-60	Wallaby
						63 T.W.D	40-60	
						64 T.W.D	40-60	
						65 G.G	20-40	
						66 N.B.T	40-60	
THREATENED FAUNA - SIGHTING OR FEATURE#						67 T.W.D	40-60	
DISTANCE	SPECIES/FEATURE TYPE	NUMBER	SITE (MICROHABITAT)	MAP/AMG?		68 T.W.D	60-80	
						69 W.M	40-60	
						70 T.W.D	40-60	700 M
						71 B.G	40-60	
						72 B.G	20-40	
						73 W.M	20-40	
						74 W.M	40-60	Wallaby
						75 W.M	40-60	
						76 W.M	40-60	Wallaby
						77 W.M	20-40	
						78 B.G	40-60	
						79 B.W.D	40-60	
						80 W.M	40-60	800 M
						81 W.M	40-60	
						82 T.W.D	20-40	Wallaby
						83 T.W.D	40-60	
						84 B.G	20-40	Wallaby
GENERAL COMMENTS* & ARCHAEOLOGICAL ARTEFACTS						85 B.G	20-40	
*RECORD FEATURES: EG. UNMAPPED CHANGE IN STRATA OR FOREST TYPE, ROCKY OUTCROPS ETC.						86 T.W.D	20-40	
TRANSECT DISTANCE	OBSERVATION OF			MAP/AMG NOTED?		87 W.M	20-40	
						88 W.M	20-40	
						89 T.W.D	20-40	Rednecked W 5.5H
						90 B.G	20-40	Wallaby 900 M
						91 T.W.D	20-40	
						92 S.T.S	20-40	
						93 B.G	20-40	
						94 T.W.D	20-40	
						95 S.T.S	20-40	Wallaby
						96 W.M	40-60	
						97 B.G	40-60	Scratch
						98 W.M	40-60	
						99 P.G	20-40	
						100 T.W.D	80-100	1000 M

LAST SHEET? YES / NO	TRAVERSE FINISH	EASTING	KOALA FINISH	EASTING
TOTAL TIME	AMG CO-ORDINATES	NORTHING	CO-ORDINATES	NORTHING

NORTHERN RIVERS REGION - GLEN_NEW
DISTRICT
HARVEST PLAN OPERATIONAL MAP
COMPARTMENT 34
GIRARD STATE FOREST
UNKNOWN MAP SHEET
HARVEST PLAN NUMBER 0
SCALE 1:10000 07/08/1998



500 0 500 1000 Meters

- BOUNDARIES**
- State Forest Boundary
 - o o Compartment Boundaries
- ROADS (Proposed in Red)**
- - - Natural Surface
 - Sealed or Gravelled
 - ... Four wheel drive
- NORMAL PRESCRIPTIONS**
- Harvestable Area
- MODIFIED PRESCRIPTIONS**

- MODIFIED PRESCRIPTIONS**
- Flora and Fauna Protect
 - Slopes likely over 30 degrees
 - Rainforest
- NON HARVEST AREAS**
- General
- DUMP SITES OR LANDINGS**
- Permanent Dry
 - Permanent Wet
 - Temporary Dry

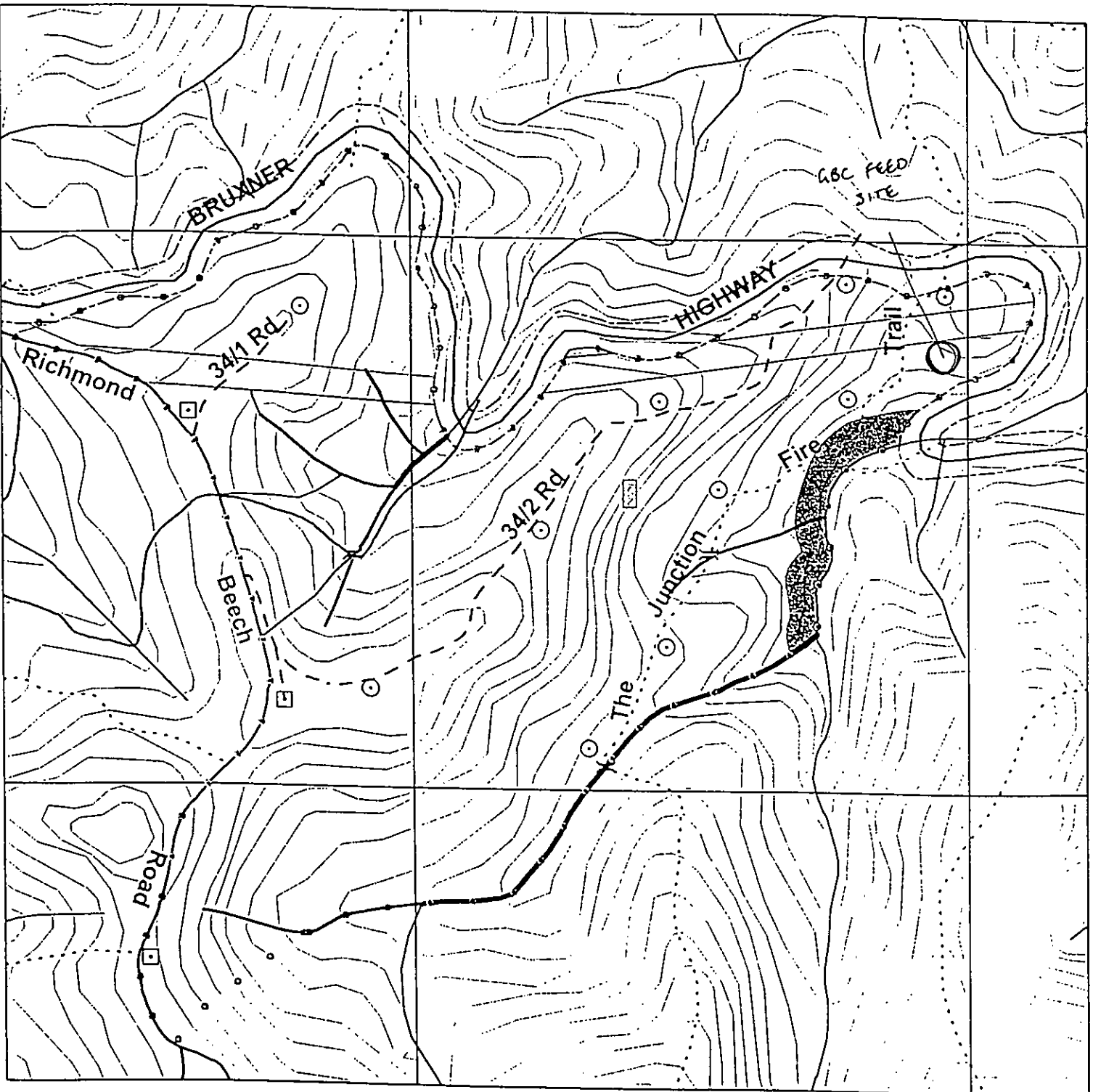
- DUMP SITES OR LANDINGS**
- Temporary Wet
- WATERCOURSES & DRAINAGE**
- External Drainage
 - Original
 - First Order
 - Second Order
 - Third Order
 - Approved Crossings

— = Koala Traverse.

o o o = Scot Scurry (Harr.)

MN
11

NORTHERN RIVERS REGION - GLEN_NEW
DISTRICT
HARVEST PLAN OPERATIONAL MAP
COMPARTMENT 34
GIRARD STATE FOREST
UNKNOWN MAP SHEET
HARVEST PLAN NUMBER 0
SCALE 1:10000 07/08/1998



500 0 500 1000 Meters

- | | | |
|---|---|--|
| <p>BOUNDARIES</p> <p>--- State Forest Boundary</p> <p>□ □ Compartment Boundaries</p> <p>ROADS (Proposed in Red)</p> <p>--- Natural Surface</p> <p>— Sealed or Gravelled</p> <p>..... Four wheel drive</p> <p>NORMAL PRESCRIPTIONS</p> <p>□ Harvestable Area</p> <p>MODIFIED PRESCRIPTIONS</p> | <p>MODIFIED PRESCRIPTIONS</p> <p>■ Flora and Fauna Protect</p> <p>▨ Slopes likely over 30 degrees</p> <p>▧ Rainforest</p> <p>NON HARVEST AREAS</p> <p>□ General</p> <p>DUMP SITES OR LANDINGS</p> <p>⊗ Permanent Dry</p> <p>⊠ Permanent Wet</p> <p>○ Temporary Dry</p> | <p>DUMP SITES OR LANDINGS</p> <p>□ Temporary Wet</p> <p>WATERCOURSES & DRAINAGE</p> <p>— External Drainage</p> <p>— Original</p> <p>— First Order</p> <p>— Second Order</p> <p>— Third Order</p> <p>✕ Approved Crossings</p> |
|---|---|--|

MN

FAUNA SURVEY REPORT for NSW STATE FORESTS

GIRARD STATE FOREST 4-5 & 10-11 August 1998 (Compartment 34 - 100 hectares)

Fauna consultant **D A STEWART** assisted by **J RUSSELL** and **B THORNHIN** (NSW State Forests)

Brief : Survey Threatened Fauna Species in conformity with State Forests of NSW Threatened Species Protocol Pre-logging and Pre-roading (1998) - **Girard State Forest, Compartment 34.**

Methodologies : Threatened Fauna Species Traverse Survey, Koala Traverse, Nocturnal Playback, Spotlight Traverse, Scat Traverse and Diurnal Bird Traverse. I was rained out on 6 August and abandoned the survey returning on 10 August.

The **Scat Traverse** was carried out independently by B. Thornhin on 27 July 1998 and a separate report submitted. Three dog scats at 70 m, 180 m and 900 m on Thornhin's transect had been marked with orange tape but not collected. On 4 August, at the request of B Thornhin, J. Russell and I collected these three dog scats.

The **Koala Traverse** was carried out independently by B. Thornhin and K. Harvey on 7 August 1998 and a separate report submitted.

Seasonality constraints apply to frogs, reptiles, microchiropteran bats and summer bird migrants. Sampling for mammal presence using hair tubes, Elliot traps, pitfalls and cage traps was not requested.

Restriction : I was directed not to mark hollow bearing habitat trees with white paint unless threatened species were observed in such trees or there was clear evidence of a threatened species using the tree e.g. "v" notch of Yellow-bellied Glider. The reason given was that confusion is caused to SFO's marking trees for harvesting by logging contractors.

Species targeted : Bush Stone-curlew, Square-tailed Kite, Red Goshawk, Glossy Black Cockatoo, Swift Parrot, Powerful Owl, Barking Owl, Masked Owl, Sooty Owl, Regent Honeyeater, Koala, Rufous Bettong, Parma Wallaby, Brush-tailed Wallaby, Long-nosed Potoroo, Tiger Quoll, Brush-tailed Phascogale, Hastings River Mouse, Yellow-bellied Glider and Squirrel Glider..

Mapping : Threatened Fauna Species Traverse, Nocturnal Playback, Spotlight Traverse (road) and Diurnal Bird Traverse.

Mammal response to playback : In accordance with protocols playback of Koala, Yellow-bellied Glider and Squirrel Glider was carried out at all sites. None of these species responded to their own sound.

Desktop Review of previous records of threatened species and a Fauna Sites Map provided.

Results of Threatened Fauna Species Survey and Assessment

Powerful Owl, Masked Owl, Parma Wallaby and Glossy Black-Cockatoo observed or heard (see Reporting of Schedule 1 & 2 Fauna Sightings).

Both records of the Owls occurred within Compartment 34. Both sites were searched where it was estimated the owls were calling, but no evidence of nesting or roosting was found. The Owls would include the whole of Compartment 34 in their hunting range.

1 Red Goshawk : It is unlikely this species would occur in this forest. It prefers tall open forest along river systems in coastal and subcoastal areas in this region where there are large populations of bird prey species.

2 Square-tailed Kite : No record this survey. As there have been previous records in Girard State Forest it is likely this Compartment would lie within the hunting range. When there is an abundance of bird prey species present in the area it is likely this species will be present.

3 Bush Stone-curlew : While there is suitable habitat in the drier more open parts of the forest it is unlikely to be present because of the severe contraction of its range in recent times.

4 Glossy Black-Cockatoo : Three birds (1 AM & 2 AF) were observed feeding in *Allocasuarina torulosa* during a threatened species traverse adjacent to Road 34/2 (see map). The *Allocasuarina* in this forest has very poor growth, probably due to low nutrient levels in the soil. There are small patches of mature *Allocasuarina* with good cone coverage and it appears there are low numbers of GBC present. A State Forest Officer present also saw three birds feeding in the same area.

5 Powerful Owl : Playback produced a response at Site 2. This species has a hunting range which requires a much greater area than Compartment 34. A search was made of the wet gully in the SW corner of this compartment where the Powerful Owl called, but no evidence of nesting or roosting was found. There are some very large Blackbutts with hollows in the gully and these must be retained.

6 Barking Owl : Playback at both sites produced no response.

7 Masked Owl : Playback produced a response at Site 1. The forest area where the owl responded was searched, but no roost site or breeding evidence was found. The same prescriptions should be applied as with Powerful Owl except prey species are different.

8 Sooty Owl : Playback at both sites produced no response. The second order creek system in the southern part of the compartment provides good habitat for this species to breed and hunt.

9 Yellow-bellied Glider : Playback at both sites produced no response. Suitable feed tree species are present, but no "v" notches were found. While there were no animals detected at the time of the survey, there is excellent habitat and the animals would very likely be present when food resources are available.

10 Squirrel Glider : Playback at both sites produced no response. Habitat does not appear suitable in this compartment. This species is known from nearby Boonoo SF.

11 Koala : See separate report by B. Thornhin and N. Harvey.

12 Rufous Bettong : Good habitat of blady grass/tussock grass/scrub ground cover occurs in patches in Compartment 34. This species has been recorded in this area on previous surveys. No scats or evidence of Bettong diggings were found. While the species was not detected during this survey it is almost certain to be present.

13 Parma Wallaby : One animal flushed from cover adjacent to the Junction Fire Trail close to the powerline corridor. There is suitable habitat along the second order creek bounding the southern area of the compartment. This species has also been recorded on surveys in nearby compartments.

14 Hastings River Mouse : While no trapping was undertaken for this species there is excellent habitat along the second order stream on the southern edge of the compartment. Part of this stream system is already reserved.

15 Threatened Frog species : The habitat of the second order stream bounding the southern area of the compartment is suitable for *Mixophyes balbus* and *Litoria subglandulosa*. Part of this stream system already has an exclusion zone. Frog surveys must be carried out along the rest of this stream spring/summer before this area is logged. Stream buffer zones must be applied.

Crinia signifera and *Litoria verreauxii* were heard calling from this stream system where the Junction Fire Trail crosses the stream during a spotlight traverse on 4 August 1998.

Incidental Sightings

Red-necked Wallaby : Three sightings along the road/tracks while driving within the compartment. Scats regularly noted.

Eastern Grey Kangaroo : Scats found throughout traverses. Regular occurrence in more open areas, particularly when driving along the road/tracks within the compartment.

Common Wallaroo.: One animal observed on the track at Playback site 2 before we started on 10 August.

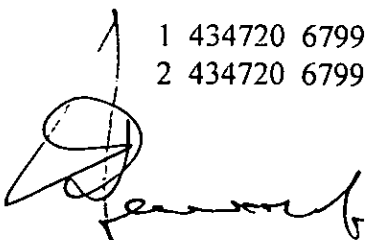
Sugar Glider : Heard calling on two occasions from the vicinity of the second order creek in the south of the compartment from my camp site on 34/2 Road on 10 August..

Spotted Quail-thrush : Flushed from the tracks along the dry ridges on two occasions.

Nocturnal Playback Sites

1 434720 6799600

2 434720 6799600



D A Stewart
(Fauna consultant)

Casino District Reporting of Schedule 12 Fauna Sightings

[illegible]

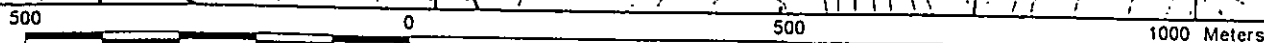
(*) Type of Inspection

1. Night Time Surveys
2. Follow-up Clearance Inspection
3. Rejects Inspection
4. Regeneration Inspection
5. Road Line, Dump Sites Inspection
6. Timber Assessment

7. Marking Boundaries, Filter Strips or Conservation Areas
8. Reports from Log Faller
9. Head Disposal Burning
10. Harvesting Planning
11. Other

NORTHERN RIVERS REGION - GLEN_NEW
DISTRICT
HARVEST PLAN OPERATIONAL MAP
COMPARTMENT J4
GIRARD STATE FOREST
UNKNOWN MAP SHEET
HARVEST PLAN NUMBER 0
SCALE 1:10000 27/07/1998

100 ha.



BOUNDARIES




- - - - State Forest Boundary
o o Compartment Boundaries


ROADS (Proposed in Red)




- - - Natural Surface
= = = Sealed or Gravelled
..... Four wheel drive

NORMAL PRESCRIPTIONS

[] Harvestable Area

MODIFIED PRESCRIPTIONS
 Flora and Fauna Protect
 Slopes likely over 30 degrees
 Rainforest

NON HARVEST AREAS
 General

DUMP SITES OR LANDINGS
 Permanent Dry
 Permanent Wet
 Permanent

DUMP SITES OR LANDINGS
☐ Temporary Wet

WATERCOURSES & DRAINAGE
 _____ External Drainage
 _____ Original
 _____ First Order
 _____ Second Order
 _____ Third Order
 ✕ Approved Crossings

- 0000 Spotlight traverse (foot/road)
- Ø Playback
- Bird traverse (diurnal)
- ...

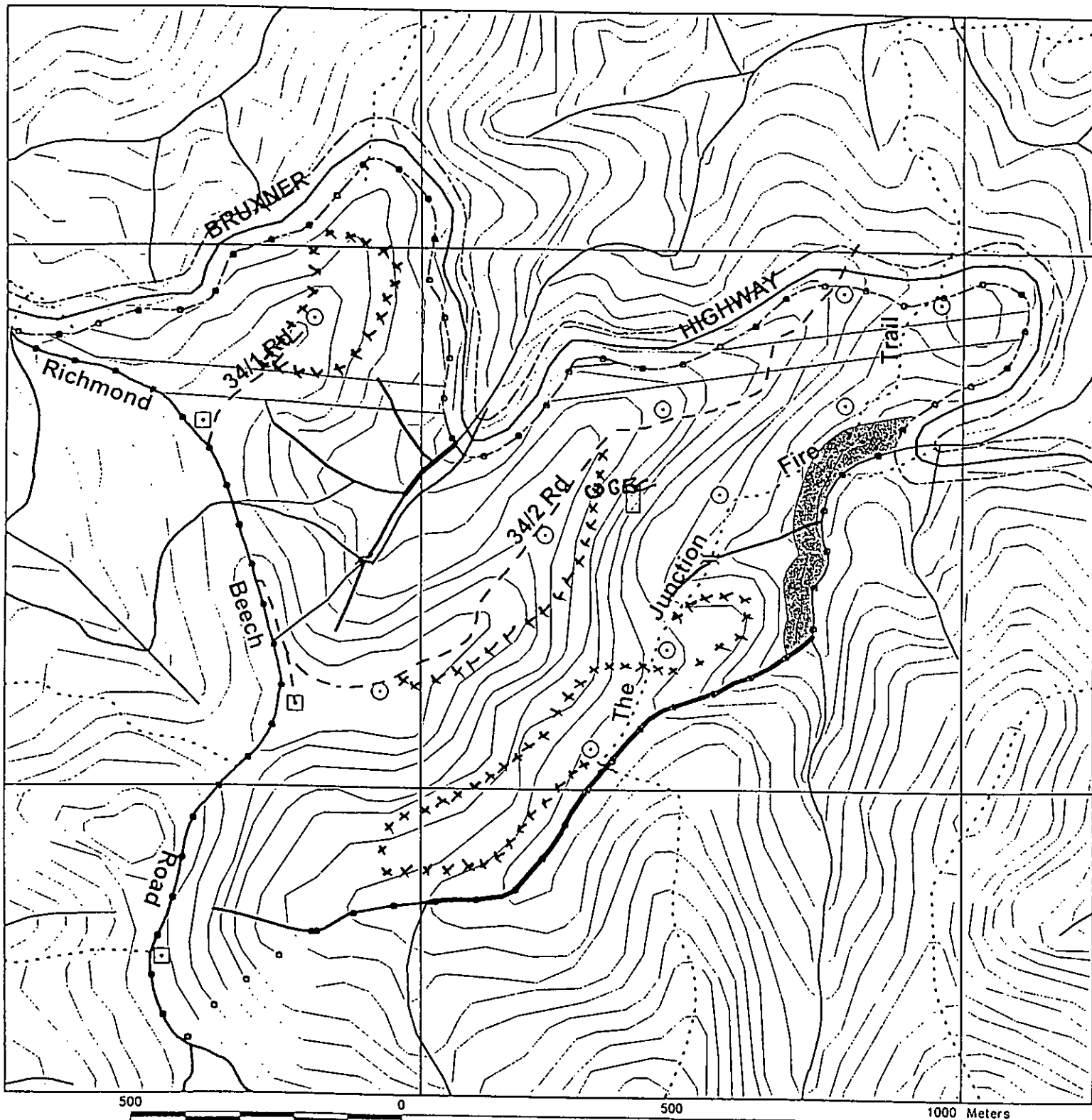
MIN

MAP 2

NORTHERN RIVERS REGION - GLEN NEW
DISTRICT
HARVEST PLAN OPERATIONAL MAP
COMPARTMENT 34
GIRARD STATE FOREST
UNKNOWN MAP SHEET
HARVEST PLAN NUMBER 0
SCALE 1:10000 27/07/1998

78+4+15+13

100ha.



BOUNDARIES
 - - - State Forest Boundary
 - - - Compartment Boundaries
ROADS (Proposed in Red)
 - - - Natural Surface
 - - - Sealed or Gravelled
 - - - Four wheel drive
NORMAL PRESCRIPTIONS
 - - - Harvestable Area

MODIFIED PRESCRIPTIONS
 - - - Flora and Fauna Project
 - - - Slopes likely over 30 degrees
 - - - Rainforest
NON HARVEST AREAS
 - - - General
DUMP SITES OR LANDINGS
 - - - Permanent Dry
 - - - Permanent Wet
 - - - Temporary Wet

DUMP SITES OR LANDINGS
 - - - Temporary Wet
WATERCOURSES & DRAINAGE
 - - - External Drainage
 - - - Original
 - - - First Order
 - - - Second Order
 - - - Third Order
 - - - Approved Crossings

MIN
 11

xxx TS traverse survey x 3

Results of Hastings River Mouse Habitat Assessments in Girard SF, Cmpt 34.

Conducted by: Robert Kooyman [SFNSW Nth Rivers Region] 17/8/98.

Hastings River Mouse [*Pseudomys oralis*] sch.1.

Following on from preliminary HRM habitat assessments, it was decided by SFNSW to conduct habitat assessments in the potential high and medium quality habitat areas in this compartment. The 'brief' for this survey effort was to define the extent of the high and moderate habitat [for HRM]. Kooyman [SFNSW] undertook habitat assessments. The criteria for assessment was based on the draft HRM Recovery Plan [7/97, amended 9/97] habitat ranking, and habitat assessment criteria, and requires the following factors to be considered -:

- Determine whether or not the survey area falls within the predicted range of this species.
- Classify and map the area according to broad vegetation cover categories, eg. Grassy woodland, Heath, Rainforest, Wet Sclerophyll forest, etc.
- Inspect the site and conduct micro-habitat surveys, based on recognition of the following features -:
 - a. open woodland, wet or dry sclerophyll forests with a grass, sedge, or heath understorey [or dispersed patches of these elements, there in], should be delineated for microhabitat survey.
 - b. identify areas with exposed rock, boulder fields, or scree slopes in, or close to the survey area.
 - c. identify areas, which have 'fire-barriers' close to potential habitat areas, such as the rock and scree areas above, and shielding moist forest, or creek lines.
 - d. identify areas with a thick groundcover of vegetation, [grass, sedge, fern, or heath], adjacent to other habitat components, such as moist sedge areas.
 - e. identify areas with small natural hollows, basal cavities, tunnels, logs, and rock crevices, [that is potential nest sites], in proximity to other essential habitat features.
 - f. identify areas with known food plants, various seeds and vegetative material from sedges, grasses, and other plants, [eg. *Glycine clandestina*, Townley, S. Billilimbra SF].
 - g. determine time since last fire, or patchiness of previous burns, relative to presence of habitat components.

Results:

As a result of the application of the above criteria for habitat assessment, the area of potential habitat has been mapped. This area is dominated by Ft.60, &62 [White Mahogany, Grey-gum, Ironbark, Stringybark], Ft 122 [New England Stringybarks], and Ft 163 [New England Blackbutt]. All these types have an open grassy understorey dominated by *Poa* sp., *Themeda australis*, *Imperata cylindrica*, and are interspersed with rocky outcrops closer to the creek lines. Moist rainforest vegetation along part of the second order creek forming the southern compartment boundary, provides some fire

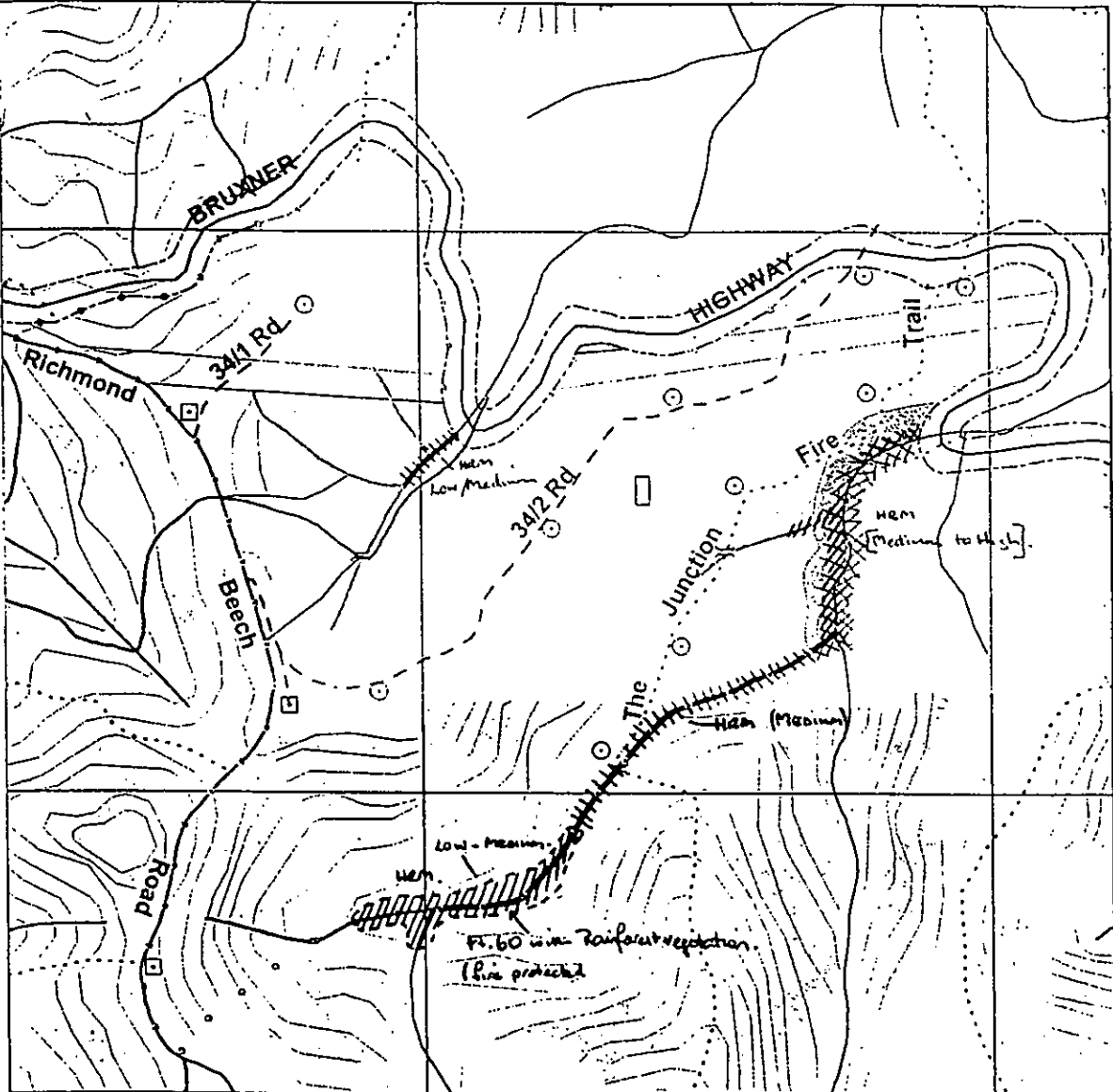
protection in this area. Sedges such as *Lomandra longifolia* and *Lepidosperma* spp. occur on the lower slopes and along creek edges. Basal tree hollows, and tunnels in rocky areas provide potential 'nest sites' for HRM, particularly on the lower slopes. These areas are delineated on the accompanying maps, appended to this report, and define the area of medium and high quality habitat for HRM based on the convergence of the habitat features listed above. The outer edge of the extent of this habitat attribute convergence zone becomes the point from which the 100-metre buffer is applied.

NORTHERN RIVERS REGION - GLEN_NEW
DISTRICT
HARVEST PLAN OPERATIONAL MAP
COMPARTMENT 34
GIRARD STATE FOREST
UNKNOWN MAP SHEET
HARVEST PLAN NUMBER 0
SCALE 1:10000 07/08/1998



Robert Kooyanal 2/98

WLM HABITAT MANAGEMENT



500 0 500 1000 Meters

- BOUNDARIES**
- State Forest Boundary
 - Compartment Boundaries
- ROADS (Proposed in Red)**
- Natural Surface
 - Sealed or Gravelled
 - Four wheel drive
- NORMAL PRESCRIPTIONS**
- Harvestable Area
- MODIFIED PRESCRIPTIONS**

- MODIFIED PRESCRIPTIONS**
- Flora and Fauna Protect
 - Slopes likely over 30 degrees
 - Rainforest
- NON HARVEST AREAS**
- General
- DUMP SITES OR LANDINGS**
- ⊗ Permanent Dry
 - ⊗ Permanent Wet
 - Temporary Dry

- DUMP SITES OR LANDINGS**
- Temporary Wet
- WATERCOURSES & DRAINAGE**
- External Drainage
 - Original
 - First Order
 - Second Order
 - Third Order
 - × Approved Crossings

MN