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Your reference
Our reference . 479E
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2 September, 1997

North East Forest Alliance
149 Keen St
Lismore 2480


## ATTENTION: GEORGIE BEYER

State Forests of New South Wales

Casino District PO Box 688 Casino NSW 2470 Phone (066) 624499 Fax (066) 625826

## RE: FLORA \& FAUNA REPORT, OLDGROWTH, \& KOALA REPORT

Dear Georgia
Please find enclosed the above reports for Washpool 718-722. Also enclosed is SF suggested option for dealing with the multiple owl records within the area.

Andrew Whitfeld
Forester
For
R. G. Fussell

District Forester
Casino District
pus.


## FLORA and FAUNA SURVEY of COMPARTMENTS 718-722, WASHPOOL STATE FOREST.

-prepared by Robert M. Kooyman, [FA- flora and fauna] Casino District. 8/97.


#### Abstract

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


## Introduction:

Flora and Fauna Surveys were conducted by Kooyman, [30/7/97 to 8/8/97], with Harvey and Douglas [SFNSW] 28/7/97 to 7/8/97, assisting with the integrated koala transects, and the general and target species fauna surveys.
Assisting this core survey team were Robyn Herklots, and Nicole Harvey.
The five compartments cover over 1150 hectares, with the net loggable area adjusted to approx. 870 hectares after deletion of designated regeneration areas in empts.719, 720, 721. Surveys have been conducted in the adjacent cmpts. 715 - 717 [Kooyman 1996], providing additional records and survey effort in similar habitats, [but excluding the upland-cool habitats and forest types].

## General Description of Survey Area:

Geology appears complex with soils of granitic origin varying from brown clay loams to free draining red soils formed by basic hornfels and /or granidiorites, as well as areas of meta-sediments. Altitudinal range varies from 970 m . to 240 m . Slopes are generally moderate, to steep.
The vegetation of the area is generally illustrated by the foreat type map [SFNSW]. Species lists for each forest type have been compiled and are appended to this report as field notes. These provide an indicative sample of the various habitats, floristic alliances, forest types, transitional boundaries and overlaps.
The sequence of forest types largely follows the altitudinal, topographical, and soil gradients, and variations, with Ft. 163 [New England Blackbutt] on the escarpment ridges and adjacent slopes grading into Ft.47[Sydney Blue-gum / Tallowwood] on the mid slopes, with Ft. 53[Brush- Box] mostly [but not exclusively] on lower slopes where it grades into, and may be part of, the rainforest communities. Rainforest [Ft.23/26, 2/3] at higher altitudes [cool NVF], is generally restricted to the protected upslope gully heads and creek-lines occurring adjacent to, and in association with Ft. $47 \& 53$. A distinct riparian alliance of Ft. 53 with 23/26 [Backhousia myrifolia, Acmena smithii var. minor, Syzygium australe,- see species lists for details] occurs at lower altitudes. In these areas there may be a well developed rainforest canopy below the emergent Lophostemon confartus, and Eucalyptus spp.
The drier ridges and slopes support Ft. $70 / 74$ [Spotted-Gum, Grey-Gum, Ironbark], with smaller areas of Ft. 62 [Grey-Gum, Ironbark, White Mahogany], with considerable variation in the species mix of these forest types between sites.

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

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

Fauna survey methodology: Includes application of the pre-logging / roading survey design forming part of the Threatened Species Protocol [3/6/97], incidental records collected during flora survey and habitat assessments, as well as the results of integrated koala transect surveys, and includes -:

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

10 minute listen at start and finish.
2. call playback for target species. Nocturnal -: powerful owl, masked owl, sooty owl, yellow bellied glider, koala, marbled frogmouth, squirrel glider.
Diurnal -: rufous scrub bird, olive whistler, bush thick-knee, eastern bristle-bird 3. transect and incidental scat collection and identification. - results of predator, and [remaining unidentified] non-predator scat analysis provided by Barbara Triggs. - not yet available.
4. track identification on sandy or soft sections of roads, tracks and creek areas.
5. extended listening time for calls, [ variable sample length, and dependent on conditions], targetting all playback target species listed above, and including other yeasonally variable species such as wompoo and rose crowned fruit-doves, swift parrot, and yellow-eyed cuckoo-shrike.
6. harp trapping and sonar detection for bat species [seasonal constraints / winter sample].
7. frog surveys [seasonal constraints / winter sample]
8. search for all other features listed in the Threatened Species Protocol Survey Design while applying the above flora and fauna surveys. [this will be supplemented by the SFO while marking out and supervising harvesting operations. For an example see yellowbellied glider section below].
9. no hair-tube sampling was undertaken during this survey, thus potentially under
sampling for a nümber of terestrial species]
NB: The survey was limited to winter thus missing the optimum seasonal sample-for [some species groups, eg. bats, frogs, reptiles, and seasonal diurnal birds. Refer to previous report cmpts. 715-717..... for incidental records in similar habitat.

Rare, Threatened, or Significant Plants recorded in Washpool SF. compartments 718-722.

Acomis acoma - [3RC] ROTAP listed. Occurs occasionally at higher altitudes, mostly in association with Ft.163, along tracks and in areas with evidence of a relatively recent fire, or disturbance event.

Marsdenia longiloba - [sch. 1, E] ROTAP - [3RC-]. Collected a mumber of specimens of vines from the family Asclepiadaceae during this survey. Non were this species. Remains likely to occur on rainforest margins and in adjoining eucalypt forest.

Arthraxon hispidus - [sch.2, V] ROTAP - [3VC + ]. Not recorded on this survey, but the area provides suitable habitat.

## Results of Fauna Surveys:

Seasonality constraints probably led to_a paucity of records for amphibians, reptiles, bats, (and-seasonalavi-fauna.]

1. Glossy Bläck Cockatoo [Calyptorhynchus lathami] - sch.2, this species was located or sighted in all of the surveyed compartments. Suitable habitat includes much of the spotted-gum, grey-gum, ironbark, [white mahogany] association, and includes areas in the other forest types. Several sites with evidence of extensive Glossy-black cockatoo feeding activity were located and marked in the field. No nest hollows were located. Application of the Conservation Protocol and retention of all known feed trees, together with searches by SFO during mark up stage of operations should assist this species.)
2. Square tailed Kite [Lophoictinia isura] - sch.2, not recorded on this survey, but is likely to use the large river valleys and flood piains nearby.
3. Red Goshawk [Erythrotriorchis radiatus] - sch. I, not recorded on this survey, but there are records for this species from the Clarence and Richmond River valleys and associated forests. This species is thought to favour the tall open forests and riparian vegetation of the river valleys, but extends up to 1000 metres in altitude in suitable forest. [Debus et al, 1991]
4. Bush Thick-knee [Burbinus grallarius] - sch. 1, not seen or heard on this survey but suitable habitat occurs in the lower altitude areas of cmpts. 718 , and 722. Searches for this species were incorporated into the general flora traverses. Playback sampling was undertaken at a number of sites in these compartments.
5. Regent Honey-eater [Xanthomyza phrygia]- sch.l, not recorded on this survey.
6. Swift Parrot [Lathamus discolor]- sch.2, not recorded on this survey.

[^0]cmpt. 722 may indicate a potential nesting/roosting site, nearby. A record was also obtained from the Washpool Forestry camp -cmpt. 685.
9. Sooty owl [Tyto tenebricosa] - sch.2. Not recorded on this survey. No playback response. Habitat in this area appears suitable for Sooty owls, and the species occurs nearby in both N.P. and S.F. areas [in similar habitat].
10. Olive Whistler [Pachycephala olivacea] - sch.2, not recorded on this survey. Playback calling was conducted on three separate days and included both morning and evening samples.
11. Tiger Quoll [Dasyurus maculatus] - sch.2, suitable habitat occurs in the area: [particularily the higher altitude areas of cmpt. 721], with no tracks or sightings, and one possible scat, recorded on this survey. The tiger quoll could be disadvantaged in the lowland areas, by predation and competition from feral predators such as the dog and fox.
12. Yellow bellied Glider [Petaurus australis] - sch.2, this species was recorded in -cmpts. 722, 721, 719, \& 718. Retention of suitable habitat trees, and all feed trees [ V notch], together with the maintenance of floristic diversity, and the riparian exclusions, will help ameliorate further potential impacts on this species. Records accumulated for the species during this study provide an indication of current distribution of yellowbellied gliders in this forest area, [given the limitations of a single season sample], and subsequently may indicate the possible location of potential nest/den trees and feeding sites and areas. [refer to AMGs]. The provision of this data should allow S.F.O.'s to concentrate searches for V -notch feeding incisions, and potential den-site hollows, in areas of known habitat, and surrounding areas of the same forest type, greatly increasing the likelihood of locating such sites. In the Washpool SF area yellow-bellied glider incisions have been located on Spotted-gum and Grey-gum, indicating these species as preferred, but this may vary across the survey area.
13. SquirreI Glider [Petaurus norfolcensis] - sch.2, not recorded on this survey. No response to playback calls.
14. Koala [Phascolarctos cinereus] - sch.2, pellets/scats, and vocalisations [once only during surveys], were the only indication of this species recorded on the survey. Results of Koala transect surveys are provided separate to this report, but indicate relatively low usage over most of the area.
15. Rufous Bettong [Aepyprymnus rüfescens]-sch.2. Recorded several times during 'this survey. Generally good to excellent habitat in the lower altitude areas of cmpts. 718; \&722 [however no records from these areas], and the higher altitude areas of cmpts. $720,721, \& 719$ [from where all the sightings were recorded]. No hair-tubing was undertaken on this survey. A range of non predator and predator scats were collected in the compartments listed above. Scat analysis results are not yet available.
16. Brush tailed Phàscogale [Phascogale tapoatofa] - sch.2, not recorded this survey but the area has excellent dry woodland /open forest habitat. No hair-tubing undertaken on this survey.
17. Long -nosed Potoroo [Potorous tridactylus] - sch. 2, not recorded on this survey, however this species remains likely to occur in the survey area. No hair-tubing was undertaken on this survey. Scat analysis results not yet available.
18. Parma Wallaby [Macropus parma] - sch. 2 , recorded on a number of occasions both in vehicle based spotlight surveys and walking spotight transects. The Parma wallaby was seen grazing in open grassy forest adjacent, or near to, moist gully-lines and gullyheads or rainforest areas with thicker vegetation.
19. Black-striped Wallaby [Macropus dorsalis] - sch.1, not recorded this survey. A number of runways and tracks were investigated as possibly indicating this species, however all scats, tracks, and sightings appeared to be of the swamp wallaby.
20. Red-legged Pademelon [Thylogale stigmatica]- sch.2. Not recorded this survey. Excellent habitat in the rainforest gullies and adjoining moist forest types. These areas were relatively under sampled by the walking spotlight transects.
21. Microchiropteran Bats - [optimum survey season - Oct. to late March. Survey Protocols require two harp traps for two nights per. 200ha in suitable habitat]. In this case extra Anabat sonar sites were sampled to overcome lack of accessible Myotis adversus and Kerivoula papuensis habitat]. Overall a six night winter sample was conducted, with records for five species - [see maps and data sheers for details] Miniopterüs australis -sch2, harp trap- and sonar [Anabat 5] records.]
Mormopterus spp. - sonar records.
Vespadelus pumilus - sonar record.
Nyctophilus gouldi - spotlight/ visual record [probable], harp trap records.
Chalinolobus spp. - probable, sonar record.
Bat work was done by Noel Douglas [and assisted by Harvey, N., Harvey,K., Herkjots, R, and Kooyman]. Sonar calls were recorded directly onto laptop computer and later compared to library calls by Noel Douglas, and verified by SFNSW Research Division - Brad Law. Sonar calls are ascribed file names and are retained for future reference or verification.
No mine shaft or cave areas were detected. Any such sites located during operations should be buffered from proposed operations to ameliorate potential impacts on roost/materoity/hibernation sites.
Harp trapping for Kerivoula papuensis and Myotis adversus in suitable habitat, [flyways and larger pools along rainforest creeks], resulted in nil captures for these species.
22. Frog species - Seasonal constraints were a limiting factor. Only two species were recorded -:
Litoria latopalmata, Litoria verreauxi.
23. Marbled Frogmouth - [Podargus ocellatus] - sch.2. No records this survey.
24. Rufous Scrub Bird - [Atrichomis rufescens] - sch. 2, two mornings, and two evenings were spent walking in areas of suitable habitat, and using call playback, and just listening for calls. [higher altitude areas of cmpts. 721 \& 720] No records this survey.
25. Eastern Bristle-Bird [Dasyomis brachypterus] - sch. 1. Suitable habitat was sampled for two momings, and two evenings. With time spent walking in areas of suitable habitat, and using call playback, and just listening for calls. [higher altitude areas, Ofcmpt-721] No records this survey.

## HARVESTING PLAN No 97/718Cas CASINO MANAGEMENT AREA - NORTHERN REGION

Rainforest will not be logged or othervise disturbed in this operation. Trees must not be felled into rainforest.

## (1) Exotic weeds

Lantana infests gully lines with thicker concentrations under moist forest types. Lantana is kept in check by infrequent frost and periodic fire as well as competition from indigenous species in the area. Crofton weed is present along some old roads.

## (g) Regeneration and seral stages

The integrated harvesting operation proposed will focus on logging of ávailable mixed hardwood stands to create gaps to promote regeneration of Eucalypts. and the thinning of regrowth stands. (Past) selective timber operations have left an irregular unevenaged forest consisting of.some remnants of the original overstorey and one or two cohorts of maturing regrowth trees

The understorey may follow a successional sequence from an initial cover of grasses, shrubs, wattle and regenerating eucalypts.

## (h) Old Growth Forest Protocol



The area has been assessed for candidate Old Growifraccorting tothe Conservation Protocol agreed between NPWS and State Forests 29 Nov 1996. The area'occurs in the "regrowth" zone where the threshold limit for candidate old growth is 10 ha. RACAC Bróad OldंGrowth Mapping Project maps show the area is virtually clear of Candidate Old Growth with fringing overlaps from adjacent National Park area as shown on COG Maps iñappendix;4-r These areas are insignificant in size and reflect the light selective logging undertaken within-the visual reterition strip adjacent to the National Park. This area is separated from contiguous:CÓG by Washpool-Road or Redbank Road and may be exaggerated by the square pixel mapping technique applied: No assessment is proposed for these small fringe areas which are known to exhibit disturbàncée form past harvesting activity. Washpool and Redbank Road should be accepted as the logical'management boundary in this case. No harvesting is proposed in the area.for virtially all of the length of Washpool Road in any case except near where it joins Redbank Road. Haivesting along the'perimeter of Washpool National Park along Redbank Road and a short section Washipool Road must observe modified harvesting within the 40 m visual retention zonê.

## Describtion S: Forest anderodeondition

This part of Washpool SF has been subject to integrated selective timber harvesting with grazing and bee-keeping in selected:areasir $=$
The forest is multiaged with regeneration. regrowth and scattered mature and over mature stems. Tree spacing is úneven with regeneratiôn of wattle and thick grass cover in places creating gaps in the otherwise continuous timber cover.

Logging history records held at the Casino Forestry Office and confirmed by field inspection indicate that all āreas have been selèttively̆ harvested between the years $1984-87$ excepting C 721 which was last harvested in the vears 1988-90: Records also indicate that a light pole harvesting was carried out in the drier eastern area in the late 1970's. Harvesting adjacent ot Washpool National Park incorporated a 20 m visual strip with selective marking for removal conducted by the SFO in this area. The bulk of these compartments are made up of spotted gum or spotted gum-grey ironbark/grey "gum type. There is a range of size classes from large overmature and defective trees to mature trees, advance growth and regeneration. The understorey is generally grassy and sparse becoming shrubby towards gullies and in the higher altitude western compartments where moister forest types dominate. The latter moist types were intensively logged and the shor time since last harvest is yet to produce dogs of sufficient size for economic harvesting. Consequently most of C720 and part of C719 and 721 will not be disturbed inthis operation.

| Birds |  |
| :---: | :---: |
| Glossy Black Cockatoo | 2 records within 1 km north of C718. Numerous records further north. |
|  | 1 record about 3 km west of C719 from Washpool NP |
|  | 1 record about 4 km south of C 721 |
|  | Birds commonly observed flying over or feeding in the area. |
| Powerful Owl | 2 records about 2.5 km and 4 km north of C 718 |
|  | 2 records about 3 km and 3.5 km south of C 721 |
|  | 1 record about 3 km west of $\mathrm{C7} 19$ |
| Providence Petrel | 1 record about 3 km north of C 71.8 |
| Rufous Scrub-bird | 1 record about 4 km south of.C721. |
| Wompoo Fruit-Dove | 2 records about 4 km south of 6721. |
|  | 1 record about 5 km north of $\mathrm{C} 719^{\circ \times \mathrm{m}}$. |
| Masked Owl | 1 record within 1 km east of C 718 in adjacmte SF ? |
| Olive Whistler ? | 1 record about 1 km south. of C721 |
|  | $\because$; |
| Mammals | ins |
| Eastern Chestnut Mouse, | 3 records within 1 km north of C 718 |
| Squirrel Glider | Recorded about 3 km north of C718. |
| Yellow-bellied Glider | Numerous records within $0-4 \mathrm{~km}$ from djacent SF and NP north and east of the area. |
| Rufous Bettong | 1 record within 1 km north of C 7 I 8 mm |
| Koala | 1 record within 1 km north of C718:. : |
| Tiger Quoll | 2 records about $4, \mathrm{~km}$ south of C 721 |
|  | 1 record about. 5 km north of C 719 . |
| Parma Wallaby | 1 record about 4 km south of $\mathrm{C} 721^{\circ}$ |
|  | 3 records betiveeri 3 km and 4 km north of C 718. |
| Long-nosed Potoroo | 2 records between 3 km and 5 km north C 718 |
| Red-legged Pademelon | 2 records about 4 km south of C 721 |
| Minioptus schreibersii | 1 recỡădabout 4 km north' of C 719 |
| Falsistrellus tasmaniensii | 1 record.about 4 km north of C719 |
|  | $i \quad i \quad \because \quad \because \quad \cdots$, |
| Amphibians | $\because \quad, \quad 1{ }^{\prime}$ |
| Mixaphes iteratus | 1 record within 1 km north of C 718 , 1 record about 4 km north of C718 |
| Assa darlingtoni | 2 records about 4 km south of C721 |
| , Philoria loveridgei : | 1 record about $3 . \mathrm{km}$ south of C 721 |
| - | -2.records within 1 and 2 km south of C662 in private property |

It is necessary to report and record confirmed sightings of species listed in Schedules 1 and 2 of the Threatened Species Conservation Act 1995 to the NPWS through the appropriate channels. See Condition 5.3,of this Harvest Plan.

## Koala Protocol ${ }^{-}$

Application of Koala Protocol
Koala transects were performed by.three District staff from 28/7/97 to 7/8/97. Actual transect locations and data sheets are stored in the Compartment History Files and summarised below. Two trees in C718 each had 3 koala scats located underneath. The total transect length of 9.3 km involved ground searches on the ground beneath approximately 930 trees.

There is a single Koala vacalisation record from C722. Results of Koala transect surveys indicate low use over most of the area.

Koala Transect Summary

| Transect | Length (m) | Bearing | Species | Scats | Comment |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 718/1a | 300 | 180 | WM,SG,WSB | 0 |  |
| 718/1b | 800 | 100 | WM,TWD,BWD | 0 |  |
| 718/1c | 300 | 280 | TWD,WM,SG | 0 |  |
| 718/2a | 800 | '102' | SG,WM,TWD. | $\begin{array}{r} 3 ? \\ 3 \text { old } \\ \hline \end{array}$ | IBK $20-40 \mathrm{~cm}$, TWD $40-60 \mathrm{~cm}$ |
| 718/2b | 400 | 212 | TWD,BK, SG; WM | 0 |  |
| 718/2c | 300 | 309 | TWD,SG,WSB; IBK | 0 |  |
| 719/1 | 1000 | 118 | WM,SG,TWB, RG,GG | 0 |  |
| 719/2 | 1000 | 257 | GG,BBX,WM,TWD. |  |  |
| 719/3 | 400 | 278 | GG,SG,WM,IBK | $3 \mathrm{~m}, 0$ - |  |
| 720/1 | 300 | 170 | GG;WM,SG,TWD | $0 \cdot 8$ |  |
| 721/1 | 400 | 40 | BBK;RG;WM,SG,BBX | 0 |  |
| 721/2 | 400 | 155 | WM,TWD,BG,WSB | 0 |  |
| 722/1 | 500 | 55 | TRP;,OAK, WM, TWD | 2 |  |
| 722/2 | 700 | 330 | TRP, TWD,WM, OAK | 0 |  |
| 722/3 | 600 | 220 | $\because$ TWD,IBK,SG,WM,BG |  |  |
| 722/4 | 400 | 150 | -TWD,'BK,OAK,RM,SG | 0 |  |
| TOTAL | 9,300 |  | $\because$ \%, | 6 | 2 trees |

### 2.5 SOLL EROSION AND WATERTPOLLUTIONः®QNTROL

Description 11 Site soil and water data and?other information
(a) Location See Map 1:15,000 attached to the Harvest Plan.

See Description 1 and 2.
(b) Climate


Climate statistics are taken from the Casino Management Plan 1983. Casino weather recording station is located about 80 km north-east of C718-722 and is representative of conditions over the area.

A warm sub-tropical.climãte preyails, witf high summer rainfall and a dry winter and spring. Dry periods may be accómpanied by strong dry westerly winds.

## Rainfall



Average annúal rainfall for the area ì about 1107 mm . Rainfall erosivity for this part of Ewingar SF is approximately 3100 . Rainfall intensity is $8.0 \mathrm{~mm} / \mathrm{hr}$ for 12 hours duration -2 year recurrence interval.


The net harvest area falls within Rainfall Distribution Zone 2. The wettest months. January and February have $19 \%$ and $17 \%$ of average annual rainfall or a calculated $R$ value equivalent of 589 and 527 respectively. Erosivity values for all other months are below 465 and are set out in the table 3 below.

Table 3 Monthly Rainfall Erosivity Values

| JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 589 | 527 | 372 | 124 | 62 | 93 | 62 | 62 | 186 | 217 | 341 | 465 |





# Compartment 721 



Compartment boundary

## Filter strips

Protection strips
Road . minor road. dump site Vet weather dumps shown in red = Playback Site. $x=$ Harp Trap

Special emphasis
0000000 - Walking Spoti.ght Transect
..... - random flora of fame transed

- Integrated Koala Transect
 $G G$ : Greater Glider.


# Compartment 722 

Scale - 1:15000


## Compartment boundary

 Filter strips
## =rotection strips

Foad . minor road, dump site Het weather dumps shown in red

Playback Site

Special emphasis
000000 - walking Spollight Transect
$=-\cdots$ - random fiora Integrated Koala Transed. $P O=$ Fowarful Owi GB = Glosy Elack Codectoo Mo = Masked Owl HT = ниер Taup site YBG = Yellow - bened Glider.
SO = Soory 0we (woregin)



Casino District
Reporting of Scheduled－Eauna－Sightings



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## Casino District

## Beogrting of Scheduled-Eauna Sightings

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mpts. $718-722$
06scusar: Roborr Koongman.

" Type oi inspecion



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## Casina District Reporting of Scheduled－Fauna Sightings

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\begin{array}{ll}
\text { WASHPOL S.F. } & \text { FAUNA Suevays } \\
38 / 7 / 97-7 / S / 97 . & \text { Cmpts. } 718-722
\end{array}
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Washpool s.f. cmpts. TIE-722.
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Pcrealie R.flc-bird.
Flock Pigzonus.
Wonge pigeon
While-Leated Pigeon.
White Cocketoo
King Poirot
Ecrern Zovella.
Mowtein Laritact (Crimien Rovalla)
Scaleng-brecrited brikear
Litlle bribact
Whike throoted tree-crener
Bell-miner.
White bround sermb wran.
Yellas noatme wioblowren.
Yellow Rodain,
Pale pertas Rasin.
Grong Fantail
Golden whiction
silver-27e
Yellas teitas Bleck Cocketroo
6 bxy Black Cachatoo
Pad broucd Finch,
Pied Curamong
Supers Lyre-bird
Towif owl.
Grang Gorbank
wher-tailed Eyle
? Falcon (chesing frock pigen).

Suge Glider
Yellaw-belliad Gi.dai)
Greater Giidor
Fecrthr-tailes Glider

Mta Bobule
Ringtail Possum
Comen Bintraicil Pounm
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Litaice blogolmata Litosic vesrenuxii (pamble: 人. theri)

Boobode owl
Tanny Frognouth
White + Wroated Nishijer
Gien_-twrual
Nois Pitta

Ruavet Grone
Aunt. Grome - thinch (?).
Slach-faced Cmakos - shibe


* Olive whistler - (renpare to Playbeck.... 8.30...... 3/7/a7.) \& No. - re: surtey - no reaponse.....
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Swift Rencot
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ipangled Dingo..
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Washecon S.F. Cmers. 718-722.
Robert Koonnan.

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1 / 8 / 97 .
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AMG LOCATIONS FOR LARGE FORZST OWLS -: 30/7 731/7/97. (oNL7)
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OWL -
* cmpt. 722 Locurion (1), 4433006754200 - (k00yman, eaciky evening,
* mear. Cupt. 718 J 4445506756350 - (kooyman, scuesal calls.

umpromptas).
$\uparrow$ unprompted towand C. $\uparrow$ is.)

* Cmpt. 718(2) , $4445006756600-$ (k00yman, sevcral calls, respare to cow.von. Brief Plonplache).
* 

Powremun owl 44250067541 so - (N.B. provour night. Koonmin.... - no planbacte unpromptal catls).

NG: Great care was taken to avoid 'Lons' Plangback whidn conle have 'drassel' torget specion in from the surromelitg orea.

Resuits indicate 'aotnal' distribuntrin rather than an ortefect of tedmique. (More recorde were obtained, but thate were neer omisting record or in the same drainay systam(a) 子, fr 8.0.).

DAM 1.
WED. $30^{r} \mathrm{~J}$ H. 1997 .
empts: 718-722
FLoeA \& FAunA sureverys
Rowert Koanian

- arive 1 Pm . - Lunch - staer surcumy-:

Reconnavience: check soade, tredus, ate. Mect up winn K. Herveny et al.
Drive traches, briaf botonical surveng at.

- Red neckel Padenetank).. on track. Intersection N. Compt.7ia (wertpooled /e-dio-lk)!

START Nibit surevenf: Gpm listen: Bendicook, Ringtail Pounm,

secommence... $6: S s_{p}-$ Marked onl - no see $H$ eving par recald... $0^{2}$ ?

> YBG - no
> Kacla - no

Listren: Badicoot, YBG
Finisu: 7:20pm.

* wecher: overcest, some light erizzle, temp. $10^{\circ} \mathrm{c}$ at 7 pm. no wind, conditions-maz - VEay DARK. O-no moon.
 \& Bad releare sample.
- sttempt call/suar recording an relecue....
- Call Panbach - P.O.-repponis/record.
 30~n- YiG calling - Berlicast ( 1 mg nòros)
100m- moter Y8G calling.... in
TS0. Spotlight YBG- Spatad. gum - nocm ed.edg.
Povefun owl - calling -8.S.W.? (kikn ? 5 .
$300 \mathrm{O}-\mathrm{Som}$ calling S(SE) $-5500 \sim \mathrm{O}$
350 m - small macrapod (Pabemelon?).
400 - several small macregols .... (thumping-warninge - Palomelan... Thylogale epp. Bendicoot norien...
s00m - YB6's calling
White throcked Nightifs. $\quad .$. light rain - cloud down to tree tapa....
sSom Greater Gider - : White Mahz. neer RQ. Den-iite... (hollww ... .
$300 \mathrm{~m}-\mathrm{km}$. . kges -giider - calls.. YBG-caus.
8:50 pm Return to vehicle . .... check dintonces, map calls eve. \# clould cleering, than ceturns
 but lifted...'
hisizal: YBG'calling. - (xe Mapping....

Matad owl - no sorpane (2osi).
R-E. aums to indicate 2 pairs of P.O. añ axocictel
Listrant sugar glideis cellinge,
YBG colling'

10:30 pm - do mappig - finion 11:00pm-Qrive to eng enes/set - can-rp-11:30pm.
Paima Walleby -an read _ I alult.
aible-Rotaroo __ an rand (2adnd, ( Jmuaile).
Rufous Bettangs (3)
weather, fini, clacer, werm, light breczas. Top. Temp. $20^{\circ} \mathrm{C}$.


Rufom Sirmb-birl- no tas paise.


* Olive-whistior call ispanse... I check gisin - no ... mable to get calls, ar cah up bid...

Eaktern Bristle-bire - no renpanke. ..
9:30an. Eno.
10:000 m...
 (N.E. ©هt).

12:30pm - back to suricle...
Shifs to - Cmpt. $722 \ldots$.
1.45p-Ind S.E corner 722... 2:15pm.

STrav: Species lists for F+.47, Ft53-eienrain sample... , Ft. 62 (apan igrany).
Check sites for Bettang survays... ate.. Night / Amplack Sites - torget M. O. tright:.,
Cmpts. $722 \phi 748$ - check vegetation - sample...
Return to C722. S:30p~.
6:00 pm. stione NGit monk. S.E coner C.72z. weather: fine, incriasing cloud, cocl,
histen: * KOALA - calling (we map for bcation).... O-no moon, Veindark. 6:39m.
 Spothight Mo - mouel immedicteng from tree, in flight... call ( $>50 \mathrm{~m}-100 \mathrm{~m}$ ) N.NE: Sthen no mare calls.....
6:30 pm:. chistant calls $\rightarrow$ C.718...

*     - Lith chatteng calle toward crecte, then stap Smine,
* T1.
* This site has records for $7.0 .($ neciby $)$, M.O., K., YB6., ... try Sguriel Glider... Plantack calls - $S_{\text {G. }}$. - no response....
6:40, D - Distant P.O. - calls - WSW. (consistant with N.D. record 3ol/ /a7).
YB6' calling - than \&rive Nort along track (Eastorn edye Cmpth).

ס:30pm - walking Spotlight Trensect -: target Rufoug Bettang. (new planback site......)
- boubook own - calling. (tomorl creke).

9:45 END walkng domsect - 'Rain' =light, clamd dorkaniz....
Prive up track - Spotlight .... GG. (se mAP) Bandicsot ( $\operatorname{long}$ novedl) - on road.
Sugs - - lider -
END: 10:00 PM. set us camp... 10:30m.
Ext week: check for - Assc deriingtonii- highor alt. Thiboric spp. - higheralt.
Mixaghyan spp - crecks (by).... Qupll. Spallisht Goosy aroan-:
Bunh thick-kne (othes) dinind birles
$4^{2} \frac{\text { Jnd }}{\text { Aner. }} .1997$
Arave: 7:30pm -

Fload f Frumit swevrins Wasiteooc S.T. Cmph. 718-722.

westruzz: overcast, $O$-nomitan, Temp. $9^{\circ} \mathrm{C}$ © 7:30p~. light rein, varydark, light brecze... eang to naglijible...

- Bandicoot(s)
- Red-necked pademelon
- Stop: Listin- Suger glidar - <isur ranin.
- 2.5rm - Greatar Glider - foules Gmm- 'Den' holbw. morked H

Ft. 70174 -apan/grany....
Glodan Dan.
9:00 pm. - Listin: White throated Nightjer.
6 * PLAOMCACK cans -

$$
\begin{array}{ll}
\text { 9:3ppu. } & \text { Squirrel Glider } \\
\text { ialkine port y Cnopt } 718 .
\end{array}
$$

walking fporkight dransect -: open wadian - target Bebten, Marragal. ak...

- bandicoot-heard

- calls... $\mathrm{S}_{\text {g }}$ G.? $X_{\text {No. }}$ - outer Nightje....

Veg. Survents - Riponin sample, $\& \mathrm{Ft} .70 / 74$, an...
5:00pm $\rightarrow$ Cupt. 722- highas att. Planback calls for-: RSB- no reupense OW- no reipare-? 6:00 stacor $\quad 1: 15 \mathrm{pm}:$
S. E : S.E Carnar $722 .-15$ Limistan: 3amina-

YBG- no resporse
Koak - 10 sexponse
Squirrel Glider - no respone

Wad. $6^{2}$ Angment. 1997.
Freed $t$ Famale surveys Whrmeal S.F. Crath. 718-722.
8ian. - Playback calk: Buen Nick-trese - no resparse. (s.e. carer C. 722 ). 6 bony Black Copratrot.... $>4$ callig nearby.
 - wat ares on old trach - C.722 - trachs - Pataroo? - rmwans.... Balic.ot... ? Dog-trachan,

Vg. Surven - Cmpt. $721 \ldots$ s:00m. weans: fine, clecs, them part dongh, -no wind.

- Shift to Ewingar Cmpt. 663 - Macobleo Frognchuth - TARGRT survice। 3 planbactus from Road - both sides main Cri. - 1 site to come: neer record. Walk down $>$ som to RF regetation...then... 1 plambale near gulh heades - no response..... histen to mins. end.

Cimpt. 660 - Marked owl - plangack - no respane... ed. 9:10pn.
Drive back To wastion S.F. $718-722-$ Wahport RQ 10:00p-. Rufous Bettang - atoxe Walpad Crk.
Watpoal RQ-b:20pun neer C.720-722-Parma Wailaty (-ura).
Track into Cmpt. 721 -:
Plmpack site-: YBG- no rexponse.
KoALA- no reppens.
LISTEN: 10 mis... Sq.G - no respanie.
Boosook own - calling.

* Powogat out - calling $\sigma^{x}$ _Cma. 720 -( 719 ) $/ 350^{\circ}$.

12:15pur cale - ex up aomp-12:30p-.
NB: YBG recards are all calls, or sightings - indicatiog overall dirtibution in area and will ashist sro' to locate 'Gead' trees ate... in porticular siter. Pleave provide $s$ folwin mats ex....

Thus. $7^{a}$ Angur, 1997 FWOEA F FAmAN Sururys
WAhtPool S.F. Clipte. $718-722$.
Robart Kaoynu.
Bain - Stent top and of C.722 - Pbuntack - RSO- no respone
OW- no respense
EBS - no respane.
Veg. Swivens - part C. 718, 719, 722, 721.
Finabix mapping ate. wirn Kevin \& Noel, etal.

6:00- hisran: organic gear 2 ....
6:30 pm - I.D. Speciners et.
Plangback calls - Sooty owl - no rexpone.
人iştan : (anh) Powrefuliowl - calling down vallen.... (se map).

- walking sponight transect-: C724. (721.).

Grecter ghder - neas camp. Mm.Bdonle Passum - calls, fisishing... ab..
Sug-s - glider - 3-callin.
Boobook owl- dirket calli...
Bandicoot - ?
s mall macroped - 'thump' abarn...

9:42 pm- Powefal owl started calling $-\sigma^{7}-50 \mathrm{~m} \pm 20 \mathrm{~m}$ S.E.
9:50pm- into heill calling / some guilly -
9:5ipm- frmate calls.... sevecal calls, then quier, Male increaces call sdrengen $\$$ frequency of calls....
10:05_spoîijet us the player to secard P.O. calls - secard >5min.calls....
Boosoce pul canilic.
Grecter Givier sitting in tree nearby .... lunch ban!

- Whitc throat os Nightjor - fluing over - calls....


=1.. Cryptocanja eryruomban (volo)
=/s. Sborean woollsii $(R-0)$
$\therefore$. Caldaluvió panientera (o
ifr. Toana cillata (vo-o)
2/x. Dysonglinm mollisioinmen $\left(x-v_{0}\right)$
: Dyconplum rufumen(vol
it te Sqroum standulornom (o-c)
i/c. Acmance sinimi. (vo-o)
$=/$ c. $S_{\eta^{2}-78 i m}$ crdininerve ( $v_{0-0}$ )
-/w Syžgine cornnarnmen (z.vo)
ilec Dysomplum fresercanum (ve-o).
$\therefore$ Diploglothis auricalic (ol
is. Endiandra muetleri (vo-o)
*. Litaze reticulata (o-v)
ic. Cryptocaring obovata $\left(a+w_{0}\right)$.
'ध. Pararchidenaran prminanion $\left(v_{0}-o\right)$.
- Aciancimic obtajpolio (0).
$\because$ Jagera pumonorne (0).
$\therefore$ Cryptracarya siancercers (o-c).
- Neolitixa çecillato (o).
= Neolitsea austratieneris (vo--l)
$=S_{y=7 g i n i m ~ d e o s i n m ~(o) . ~}^{\text {( }}$.
- Elacocarpas kirtomain (vo-0)
s.E. obouchis ( vo . )

Dendrocinde exceler (o-c)
ic. Dendrocinde photinaphnilc ( $(\infty)$.
Eluretio acmaninata (vo).
x. Daphramera op. A.
(0).
$=$ Rhodomyrtus rubacour (0).
Tasmannia insipida (o).
$\because$ Livistanc amatratio (vo-c).

- Gonelina leichardtioina (o-vo)
i. Cipptocerya oryturanion (vo-o).
!c. Alectryan shincinereme (vo -o).
- Cryptocarya rigida (vo-0) moclane...
lc. Melicagre misracocea (0).
c. Endiatura sieberi (Jo).
$=$ Archantophoeinx cumingiamiene (ro). Linespalix manortactin (vo-m-i). Maclura cochinchinensij (ro).

Serris involuta-( $0-c$ ).
Cissue hypooglemea ( 4 )
$C$ issus antorcticic ( $(0-c)$.
$C$ Cyration clematidien (0).
$C$. owvenone(vo-s).
Hobbertic scondens (vo-o).
Calcestrm sulospicathan (o-)
Rubom hillii (o)
Rubour marai ( 0 )
$R$. raifolis ( $0-\mathrm{c}$ ).
Marsdanic rostatco (o).
M. flevucere (vo-o).


Dioscerea transverse (vo-o).

Palmeria scendars (0)
Piptocalipx moarei (vo)
Streptothanmus morei ( $e-v_{0}$ ).
Screopetchum harveppinen (Vo-O)
Ripagonmon abloum (o-vo)
$R$. elsayanum $(0-c)$
R. alloum comak leares gern) $(R-0)$.

Stephenia japanica ver. dhinder (o-cl.
Lesrephora moorei (vo).
Plin--nove hollendice (o-e).
Malaisio secandare (vo-0).
Raneminh offici leichnordticira (vo-0).
Theris umbarasen (vo-c).
$\Delta_{\text {rtherepteris }} n$.
Asplenicin ountrdaricum (--v).
Allocaricn bribbanensis (vo-ol).
Platycesinion supeubun ( $0-1$ )
$P$ bifuenturn(o-c)
Micrasarnm scandar (vo-0).
Diplazinim auntrale (o-vo).
Histiopteris micisa (vol)? ehatk...
Landreapesis decmpanite $(--c)$.
Adecitum his pidulum (o)
A. fermo swon ( $0-c$ ).

Pteric tremula (o-vo).
Pyrionica smpentris $(0-c)$
$P$. canfluen (vo)
Cyotheen congreri (vol)
$C$. auntralic (vol
C. leichinorktiana ( $0-v_{0}$ ).

Morsdanic ep.
(R).

Blechnuen costilagenmen (vo-c).
Davallia pyridata (o).

WishPoon S.F. Cmp. 718-722 . contrd....
=/ce Diospuras pentamera (o-vo)
sick Penrontic comaing comii (o)
Citriobatre panciglorme ( $0-c$ ).
Wilkiea huegelimana (o).
Enpamatici lawria (vo-c).
Psychatria lonvicero ides ( 0 ).
Corentere stricte ( $0-c$ )
Cordylic patiolaris ( $0-v 0$ ).
Sodonum aviculare $\left(v_{0}-0\right)$ ditudae.-
Unticen incica (vo-o).
Solanum cinaremme (tall wand) (0) dibubal.
Diospyras anadralie (vo-o).
$\mathrm{sc} / \mathrm{c}$ Brachyctitan acerifolines ( 0 ).
Hydrocotzgle pesicellara (0-vo).
Pepperomica \&.
(vol.
Tatranaementanc padequi (vol).
icle Polmecias eley-ns (vo)
fis $P$. murnani (vo-a).
tis. Guion semylancen (o).
$\therefore$ Claomlon auntrale (0).
ike Scolopia boramii (va-ol.
I/sc Cinnamominm olijerii (vo-o).
ic. Acranychic dolongifolion (0-c) - ane folitite flicte (jumide).
$=/$ sc Daryphara sassctras (0-vo).

- Citronclle moorei (vo).
is. Euroschinus falcetox (vo-o).
- Ficin watkinsicina (0)
- F.
. Elazocarpus grandis $(z-0)$
Omatentin papuigolinis ( 10 ).
$k$ Baloghic inggh ${ }^{\prime \prime}$ len (vo-0).
- Polyarmar cumnifhami: (vo-d.
= Beilschnedia obtusifolia ( 2 m ).
- Glochidion ferdin-Q:: (o-vol.

1s Hymeroeporum fravmm (vo).

- Ciyptocanza triphinarsic (e-vol).
- Abropbyllum ornans ( $\left.v_{0}-c\right)$ crulun. -
c. Centhumin coplosmoider val.nt. nollon. (e).
$\therefore$ Stuocerpm salignme (o-vol).
Viola hadracoee (o).
ic. Decarpamum humile ( $\mathrm{V} 0-\mathrm{e}$ ).

Raver Koogmen 8/97.
Cyperus tetraphyllme ( $0-4$ ).
Pollic cispota (vo-c).
Derfidalum puzinig me (o).
Calcanthe 1 iplic ata ( $10-0$ ).
D.enirdoimen 4 kinginm? $x$ chene..

Deñ.doimen $5^{\text {acillicante ( } 0-1)}$
D. speciosmon ( $0-v 0$ )
D. aematumen ( - )

Bulpophyllum encigumen (ro-)
B. schatrerimm (vo- ).
Alpinion caunilec (vo-c).
Parietoric r.dobilis (vo-o).
Elatoctema reticulato ( $R-0$ ) crade, rocen...
Parsonsici fulue ( $40-a$ ).
Cephalaralia cephatalanere (wo-d).
Asplenium polyodon (vol.
Telrantigina niters (ro-o).
Dencisdoin tetrognimen (vol).
Opliseninis $r$.asmalumen (vo-o).
Peppeionia. leptoikdaps ( 0 -vol).

Tyloghara pariculatio (o) aspen...
Srilare auntrabis ( $(0-0)$
$S$. glacifititan ( $R$-vo).
Marinde jatminoider (vo-).
Sarcochilm $r$
Porsossic induplicato (vo - ).
Senna clavigera (a).
Hibicens splandan (R)
sc. Hdoiscuas heteragnghen $(b-\infty)$.
Treme appera ( $R-0$ )
Solenum maniticinum ( $R-v_{0}$ ).
Bremnica dolangifdia ( $k-c$ ).
Trochocespor lawina ( $R-0-c$ ).
Sc. Symplocas therittarii ( $R$ )
Halichersom diosmifoline (vo).

WAstiooL S.F. Cmpt. $718-722$.
Kobart Kaoyman.
7/97.
=. Encainptha microcory' (c)
E. E. Salizno $(0-c)$
-E. acmaroides $(0-c)$
=. Lophostzmon couforth (vo)
$\pm$ E. macultata $(10-0)$.

Cryptorarya rigiden (o)
Sotanum cinereum $(z-\theta)$
Trochacerpa lawrica (o-c).
Persomic median (0).
Archirhodomirtins bectelari (ol.
Piychotrion lonicsroiden (o-c).
Cabochlanara dubia (o-c)
Ptoridining enculenteum ( $0-c$ ).
Minterne
(a)

Solamin avicubare ( $n$ )
Solanum densitestionm ( $0-c$ ).
Indysferc aundacin (0).

Zieria r-arboincus. (0).
$x$ wotherrea glancen $(0-c)$.
Pimelec linigolia (ro).
Hobacus heteraph yilm (vot.c) - downsupe / fire...
Payscian sambucifolins (ol
Dawsanki iupariba ( $0-c$ ) =nitivip/taun.
Lomadic longifolic (otc)
Dicinella canermben ( $0-c$ ).
Alpinic coverudeco (vo-o) Gymiostandur encaros (vol).
Cymiodion sp.
(o-ve).
$P$ elegens $\left(v_{0}-0\right)$.
Olecrion nernstii
Yorecio lautus var. lanceobtures (R-0).
itelicheryism w.aff. scorpioiden ( $\pi$ ) chrack!, chate xacimen?
Bractecrita bracteata (0).
Acamis ccoma ( $z$-vo $)$.
Seranim sotandori (.).
Sobanm furfuraceum (•)
-olennom s.cenpontate? (vo-o).
jeotiteqan decalbata (vo-o).
colifeen cuntrationesis ( $x_{0}$ ).
vermndion dolangiflicn ( $0-v$ ).

inpormation

>emania. celartroider (vo).
lacrozemion faweshi: (vo-o). .
$=$ E Evineanppous prapongua $(0-c)$
$\therefore$ E. carrea (0)
C. E. sidereptitoic (o)
$\pm$ $\pm . E$. mollincanaa (vo-o)

Ic.E. ir.ati. ruinipara (ro).
c E. microcarys (ro-o).
$C E . \quad$ acmenoider $\left(v_{0}-0\right)$.
sc. Allocamarina torntoua (o-c) Jackianica is scaporia (vo-0).
in. Acricion irroratan w. irsioserm (R-N)
x. A. mibunvinghon $(a-0$ (tamsinam).

Indijpfora o autrais (o-vol)
Solonmon r.furfaceinm (vol.
Lespedera sp. junceon subperece. (vo-a).
Solanum dusif.ntiac. $(0)$.
Xantarem glinice (vo-al.
Richardè brariliesio $(z-v o)$.
Goodenia rotmegaia (o-vo).
Crassula siehoiana (-vo).
Viota betenicifolici(o).
Oparemlasicn (sp.) hispida (ro).
Bracteantiag bractecmina (vo).
Gercainom solmderi ( $+0-0$ ).
Viola haderaceae (vo).
Solanim cinereum (e).
Pimeiea linifolianer. (e-vo).
Olecrian nernstii (R-vo).
Solanum capsicouden (vol.
Sobormen prinaptyllum $\left(r_{0}\right)$.
Macrozsmics fawcett: ( $\left.v_{0} \cdot\right)_{\text {o }}$.
Aburition rompenpuon (z-vo).
Plectronthen porififarex (ro-).
Pittosporum revoluturn (bio)-2acky
Galiom (migran) (i) roden orma...
propingunim

Imperatian colindrisa (c-vil
Poin lai.llardian willat. (o-vc).
Cymbegaran $x$.
Envaeregon $x$ ?
Theneado andechis ( $0-\infty$ ).
Botrriochloa r.(decipiain:) (a).
Dianestio camernecio s-o: ( $z-v o$ )
Lomonera mutiflom (voi.

Ghacine clomdentina (0). Hardentageg violceana (o).
Desmoding shytudghamin ( 0 )
6alactic s. ?
Ematreptine Iatifoline (0).
Kannedica rubicmon (vo).
Hubertic sccoders (ro-e).
Cetartrus subspiectures ( $R-\infty$ ).
Rubom parvigolmi (vo).

Chislanthes sieblericion ( $0-v a$ )

WASHPOOL S.F.

Fr. $70 / 74$, bo 2 ofj-cont. -
Riparian Sample
c.v. Laphastennan conforturs (c)
C. Encahyptus saligna (o)
C. E. (Cor, mitar) intermedic (vol)
c.E., microcorys (vo)
c. Syncarpia Slammiffera (o-vo).
C. Elacocespas granki (R).
s/c Livistona auntrahi $\left(v_{0}-0\right)$.
Enpanctic laurixa (o-c).
:/ec Bactiomic murtifolic (vo-c).
ic Acccia irreratan va. ereverata (o).
ic. Acacic melonomplon (0)
ic. Gbchidion ferdinamdi: $(0-c)$.
ic. Hymanesparmen flavum $\left(v_{0}\right)$.
Eupomatio lawina ( $0-c$ )
Cruptoceryin rigida(o)
:. Trochocepa lawinn (ot c)
Psenduanthemum variabile ( 0 ).
Pimelar latifolici ves.ahis (o).
.. Acronychice oblongifolice (vo-o).
Raponeen variabilis (o).
Daphnondra os. A (vo).
Diospinios amitralix (vo-o).
Ficms coranata (0).
Citriobathe pansiglorms ( $0-\mathrm{c}$ ).
? Dichonder sepere (sol.
Viola hederccease (0).

Croton verreanxil (o-vo). Cors
Syzy ginim amptiale (vo- Cor
Notelea langifolici (o).
Linaspadix menartachyue (voto).
Ponctair elyane (vo)
Pcrarchidendion prninesum ( $R-v o$ ).
Guija semiglanca (vo-o).
Cleradendron tomontorm (0).
Brennia oblang folice (vo-l)
Treme ae pera (vo).
Goria lotf-lia (vo). (nain foul).
Gerarions solendor: (val.
S.E. Coenver CmpT.722 718. 7/97. - 8/aา.

Kinnalia riviounder (0)
Horlentajin violanesc ( $0-v o$ ).
Hiblitice scmblens (0-c).
Dioscosen timeressa ( 0 ).
Pandorar pan Qarana ( $0-0$ ).
$\times$ Mebodinm raira ( 0 ).
Morslence rostmen (.)
Smilave auntratin (0)
Cissm cutratica (o-vo).
Darris involuto- (0).
Cissus hypogtanca (o).
Lasterepsis decomparita (o-va).
Dipbarion op ambale (o).
Calochlaince kmbia (o).
Christellan dentata (o)
Doolia arpara ( $0-c$ ).
Adiniturn formsonim (vo)
A. hispidatum (vo-

Panis trzmula (vo-o).

Luinamía muti Eliora (0).
Lomarana lanjflic (0-6)
Sulg-: Specinen:
Entolaica marginans (0)
Dianella camarulia (o-)
Oplisminus $r$. (ienolman) (0).
Alpinica canerutici (vo-o).
Abcassia brisbomensis(vo).
Ellatosteme retionkames (ol.
Cyperme tedraphyllum ( $0=0$ ).
Platzeerinom superbum (ito).
Platyerrinim bifucatum (o) $)$
$\begin{array}{ll}\text { Pyrousica confliens } \\ P \text {. } & \text { rupentris }\end{array}$ (ol Tachoenper.
Dendratinim aamulunn (o-vo).
Calonthe wipliceta (vo).
Davalicin prind $t_{6}\left(0-v_{0}\right)$.
Lantana camaic (e-0).
Stephonion joupenicen ver.diecolar (0)
Sercapetcim. horvmanum (vo-o).
Geiteraplesimin cymeanm ( 0 ).
Clematio cristate (vo-ol).
Rubures ranigolimi $(n-0)$
$R$.
Capration clematidea (vo).
Glycirie clamberitiva (vo).
Marstencic flavuen (o-vo)
 (linall leaval (form).

WASHPOL S.F.
Hoves. " scutifolia (R.a).
Riparia sande cunt.2....
Lon at. $722,718$.

voikiea huregeliona (o):
Abrophyllum aracoss (of
\%/x. Balghic inghy lla (ro-o).
Maytans
(o).

Pratio purpsecricen ( $\mathrm{v}_{0}-0$ ).
$O_{x a l i o}^{s e}$ ( $v_{0}-0$ ).
Aneilteman bighorm (vo - )
Sc. Ewoschinim faticatus ( $n-0$ ).
Emponatin bennetti; ( a ).
x. Alechyon sulcinerem (ro - 1 .

Hydrowtitle pedicellosa ( $0-00$ ).
Pollic cricata. (vo-o).

scle Ceratapetchime apptalum (vo-)
sc. Quintinia vedani: (o-

Rhadomenths subecene ( 0 ).
\%. Scubapion bramiii (vol).
،. Neotitea deallbatc (vo-a).
Endicidra nenberi (rood).
Anaeterns madeananue ( $w-0$ ).
Clestarthers cmanighamina ( $v_{0}-0$ ).

- Pennention cominganii ( $v_{0}-o l$ ).

Daryehorn saxuefaras (vo. )
Pdyama cunaighami:. (vo- 1
Schizomorica ovata (vo-0).
Caldcluvicin pariculore ( $10-0$ ).
...... them ade RF scmple. upitram NVF \& SNUF....

Acratriche hatifolic (vo-o).
Deshamix cetarioiden (No).
Gmotice leichardiciac (vo-).
Ustrica inciia a (ro-a).
Elcratuouan tamantosum ( $(-\cdots-0)$.
Fitapormin revolution (0).
Elcuocospros obovatiss (roo).

WAShicol S.F.

E. : acmanioider ( $0-c$ )
$E$ ackijnc ( $0-\infty$ )
E. laquopinia (o-vo).
ic. Acacia melanoulton (0-vo)
c. Acacia, irrerata uw. irrorato ( $0-$ )

Allocamaina torndare (vo-c).
Trocho-upa lamina (ro-o).

Goodia hatifolic (o-ro).

$\therefore$ Acomis acoma $(t-R)$ mithernd area...
-rypioc- pa risiden (R-0).
Vantans is.
Pimatean linifolice .
( 0 - 0 ).

Xanthorrea $Y$ gluree ( $0-c$ ).
zucrepagan lancealature ( $0-c$ )
rehichodomirtue Lectle-i (vo-0).
iychotria lonicaroides (ro-a).
sennic oblongifolici (o).
-otanum densiventitun (o).
andijofera austrcio (vo-0).

iola betanicifolica ( $0-c$ ).
ercrime sp. solusiont (o).
hyllonthas ${ }^{\text {P }}$ (0).
slanum cineremen (tail) $($ vo-c $)$
itanm ineaquitterian? ( $10-k$ ).
Haparum modulamen (e-vo).

- Rolacte Loyman : Faboiene-specinen...(o-c)
-recio anice: ygd-lifoline (ro).
-paitice: specimen- yellan ghana ....
xylobimimilicifolin ( $v_{0}-c$ ).



[^0]:    7. Powerful owl [Ninox-strenua]-sch. 2-Records-[total of 14 -during survey period] for this species were obtained by all surveyors during this survey period, [see maps and AMG records for details]. Records were obtained for all cmpts. surveyed. This may be al reflection of a combination of factors providing an optimum return on sample effort, eg. high quality habitat in the area, optimum time of year for sample, dark moon phase, optimum weather conditions, and the extent of 'natural' [ie.unprompted] calling which occurred during the survey period.
    As a consequence of the rapid and extensive response to the call playback conducted on the 30/7/97 for Powerful Owl, call playback for this species ceased after the two initial, separate, samples [on that date]. Thereafter all records were from natural calling and included males and females.
    8. Masked owl [Tyto novaehollandiae] - sch.2, Recorded on several occasions during this survey, both in response to call playback, and from unprompted calling in cmpts. 718 and 722 . Calls [screeches and chattering] in the very early evening in the S.E comer of
