

IV Vertebrate Fauna

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Introduction

The vertebrate fauna of the Youanmi-Leonora Study Area was documented by intensive sampling around the survey area (YY) on Yuinmery Station. This area was selected to maximise sampling of different landform units (Figure 3) and vegetation associations. Opportunistic sampling was conducted at other locations within the Study Area to provide data for other landform units.

Fenced pit-traps, metal traps and sampling quadrats were used to document the vertebrate fauna at selected sample sites during June 1979, February 1980 and September-October 1981. Some additional vertebrate data were obtained during September 1986 during the vegetation survey. Sampling methods have been detailed by the Biological Surveys Committee (1984) and a comparison of results from the first two periods is included in How *et al.* (1984). Descriptions of vegetation structure, floristics and soils of the faunal sample sites are presented in Appendix I and listed in Table 2.

The first survey period recorded few reptile species (Figure 4) because of reduced seasonal activity during winter. The summer survey recorded the highest number of species and individuals. A few additional species were recorded during the third survey and it appears that further surveys would add more species.

The number of bird species and total number of individuals recorded during each sampling period are presented in Figure 5. Additional species were added during each survey. Figure 6 indicates the number of species and total individuals recorded on the six quadrats. Each shows a steady accumulation during the three study periods, indicating that the recorded assemblages from sample sites are far from complete. This reflects the high degree of nomadism in arid areas.

Representative specimens of most reptile and amphibian species are lodged in the Western Australian Museum and catalogued as R 66043-66071 (May), R 69001-69136 (February) and R 74648-74730 (October). Representative specimens of small mammal species are lodged in the Western Australian Museum as M 17619-17632 (May), M 17780-17824 (February) and M 20216-20239 (October).

Amphibians and Reptiles

Three amphibians and 43 reptile species were recorded from the YY survey areas (Table 3). All species are within their previously known range. The paucity of amphibians is largely due to the lack of large claypans, granite exposures and streams which are important habitat requirements in semi-arid regions.

Two families of lizards are well represented at Yuinmery; 11 species of gecko and 13 skink lizards were recorded. These numbers are only marginally fewer than the number of species recorded from the more diverse vegetation areas at the Mount Jackson and Bungalbin Hill survey areas further south (Dell *et al.* 1985). The more arid assemblage is reflected by the presence of *Diplodactylus strophurus*, *Nephrurus wheeleri*, *Caimanops amphiboluroides*, *Ctenophorus inermis*, *Ctenotus helenae*, *Varanus caudolineatus* and

Table 2 Fauna Sites of the Yuinmery Survey Area (YY)

Site No.	Field No. (YY)				Site Co-ordinates					Vegetation	Site Type	FP 123	Fauna Survey			
					Latitude	Longitude			TL 123				BQ 123	OP 123		
BREAKAWAY (B)												O				XXX
DUNEFIELD (D)																
YL3	M6	R6	B6	28	31	45	119	14	50	<i>Eucalyptus gongylocarpa</i>	Low Woodland	S	XXX	XXX	XXX	XXX
SALT LAKE FEATURE (L)																
YL8	M3	R3a	B5	28	33	40	119	05	25	<i>Halosarcia</i>	Low Shrubland	S	XXX	XXX	XXX	XXX
YL9		R3b		28	33	40	119	05	25	<i>Cassia nemophila</i>	Low Shrubland	S	XXX			XXX
YL6	M4	R4	B4	28	33	25	119	05	30	<i>Eucalyptus striaticalyx</i>	Low Woodland	S	XXX	XXX	XXX	XXX
YL7	M5	R5		28	32	35	119	05	10	<i>Acacia ramulosa</i>	Tall Shrubland	S	XXX	XXX		
SANDPLAIN (S)																
YL13	M1	R1	B1	28	32	00	119	05	45	<i>Acacia/Eucalyptus</i>	Low Woodland	S	XXX	XXX	XXX	XXX
CALCAREOUS PLAIN (P)																
YL10				28	32	15	119	05	30	<i>Casuarina cristata</i>	Low Woodland	O				XXX
YUINMERY HOMESTEAD												O				XXX
BROAD VALLEY (v)																
YL22	M3	R2	B3	28	32	15	119	05	30	<i>Acacia aneura</i>	Low Woodland	S	XXX	XXX	XXX	XXX
YL23	M7	R7	B7	28	31	55	119	11	35	<i>Acacia aneura</i>	Tall Shrubland	S	XXX	XXX	XXX	XXX
RAM WELL												O				XXX
RICHARD'S WELL												O				XX
DEPOT SPRING												O				XXX

Field No.: M = mammal, R = reptile, B = bird. Site Type: O = other site, S = sample site. Fauna Survey: FP = Fenced pitline, TL = Trapline, BQ = Bird quadrat, OP = Opportunistic sightings. Numbers indicate period of survey: 1 = 1st survey (June 1979), 2 = 2nd survey (February 1980), 3 = 3rd survey (October 1981).

Table 3. Amphibians and reptiles at Yuinmery (YY) survey area indicating number of species and individuals caught in each sample site. The first figure indicates the number caught in fenced pit lines; the second figure indicates the number caught opportunistically; single figures indicate opportunistic collecting only. Numbers for the three survey periods are combined. Vegetation types are listed in Table 1 and described in Appendix I. X indicates additional material collected by D.R. King in September 1986.

LANDFORM UNIT VEGETATION CODE (YL)	B	D	L	L	L	L	P	P	S	V	V	V	V	V	V	
	—	3	6	7	8	9	10		13	22	23					
LEPTODACTYLIDAE																
<i>Neobatrachus centralis</i>											2/0					
<i>N. sutor</i>				X						X						
<i>N. wilsmorei</i>										X						
GEKKONIDAE																
<i>Diplodactylus assimilis</i>	3															
<i>D. elderi</i>		1/5									0/1					
<i>D. granariensis rex</i>		0/3													3	
<i>D. pucher</i>	1														4	
<i>D. squarrosus</i>			0/1				1								4	
<i>D. strophurus</i>									0/3	0/1						
<i>Gehyra variegata</i>	5	4/1	0/12	1/0		1/0		2	0/3	0/1	0/2	3	1		2	
<i>Heteronotia binoei</i>							1	3	0/1			1	1			
<i>Nephrurus vertebralis</i>		1/0		1/2					3/0			1				
<i>N. wheeleri wheeleri</i>							2									
<i>Rhynchoedura ornata</i>		0/2	3/3	1/0		1/1			3/0	1/0			1			
PYGOPODIDAE																
<i>Delma butleri</i>		0/2								2/1	0/1					
<i>Lialis burtonis</i>		0/1								0/2	0/2					
<i>Pygopus nigriceps</i>							1		1/0							
AGAMIDAE																
<i>Caimanops amphiboluroides</i>																2
<i>Ctenophorus inermis</i>		0/2	0/1			2/4			2/0	2/1			3			
<i>C. reticulatus</i>				X							1/3		1			
<i>C. salinarum</i>						1/0			X							
<i>C. scutulatus</i>											0/3	0/10				
<i>Pogona minor</i>		3/1	0/1													
<i>Moloch horridus</i>											0/1					
<i>Tympanocryptis cephalo</i>									X							

Table 3 (cont).

SCINCIDAE

<i>Cryptoblepharus carnabyi</i>					0/1									
<i>Ctenotus atlas</i>					X									6/0
<i>C. helenae</i>														0/1
<i>C. leonhardii</i>														2 6/2 0/5 1/1
<i>C. schomburgkii</i>														1 3/1
<i>Egernia depressa</i>														1/7
<i>E. inornata</i>														1
<i>Eremiascincus richardsonii</i>														1 2
<i>Lerista gerrardii</i>														0/2
<i>L. muelleri</i>														1/0 1/1 3/0 0/4 1/0 1/1
<i>Menetia greyii</i>														1/1 0/1 0/1 2/1 0/2 5/0 1
<i>Morethia butleri</i>														0/1 2 0/1
<i>Tiliqua occipitalis</i>														1

VARANIDAE

<i>Varanus caudolineatus</i>														0/1 0/2
<i>V. gouldii</i>														X
<i>V. panoptes</i>														0/1 1/0 0/1 0/1 13
<i>V. tristis</i>														1/0

TYPHLOPIDAE

<i>Ramphotyphlops bituberculatus</i>														1/0
<i>R. hamatus</i>														1/0

ELAPIDAE

<i>Vermicella bertholdi</i>														0/1 X
<i>V. semifasciata</i>														1/0

V. panoptes at the Yuinmery Study Area but not at the Jackson and Bungalbin Study Areas.

The richest herpetofaunal assemblage was the *Acacia aneura*/*Eucalyptus trivalvis* over *Triodia basedowii* Sandplain site (YL13) with 17 species. The second richest site (with 15 species) was the *Eucalyptus striatocalyx* Salt Lake Features Site (YL6) on the margins of Lake Noondie. Three other sites each had 13 species; these were the *Eucalyptus gongylocarpa* Low Woodland on Dunefield (YL3), and the *Acacia aneura* Low Woodland (YL22) and *A. aneura* Tall Shrubland (YL23) sites on Broad Valleys.

Birds

A total of 78 species of bird was recorded during the survey of this Study Area. These comprised 27 non-passerines and 51 passerines. Table 4 lists all species and indicates the number of sightings and total number of individuals in each vegetation type during each survey period. The passerine assemblage was not only richer but it contained more individuals.

A notable feature is the high number of non-passerine individuals compared to elsewhere in the goldfields. At Yuinmery the percentage of the 9 granivores (*Phaps chalcoptera*, *Ocyphaps lophotes*, *Platycercus zonarius*, *P. varius*, *Neophema bourkii*, *Melosittacus undulatus*, *Nymphicus hollandicus*, *Cacatua roseicapilla*, *C. leadbeateri*) was 95% of the total non-passerines. The 27 non-passerines included 3533 individuals of which 1976 (or 55.9%) were *Cacatua roseicapilla*. No single passerine species was as dominant numerically. Three small insectivores, *Petroica goodenovii*, *Smicrornis brevirostris* and *Acanthiza uropygialis*, and two honeyeaters, *Manorina flavigula* and *Acanthagenys rufogularis* were the most abundant passerines.

At Yuinmery the irregular often heavy rain may result in prolific grass seeding which provides a rich food resource during ripening and after being shed. Pastoral activity has encouraged this growth of grass at the expense of woody shrubs and trees. Coupled with this are numerous stock drinking troughs which provide permanent drinking water within easy flying distance from food. It is likely, therefore, that the present high number of granivorous non-passerines is partly a result of pastoral activity in the area. Because the highly mobile granivorous non-passerines move between feeding, drinking, roosting and breeding areas they show little preference for specific habitat types. In addition the low number of other non-passerines precludes any comment on correlations between habitat preferences. Table 4 shows that at Yuinmery the *Eucalyptus gongylocarpa* woodland (site YL3), the mallee/spinifex (site YL13) and the *Acacia aneura* shrubland (site YL23) had the highest number of passerine species. The Samphire association (site YL8) had the lowest with only 2 species.

A computer printout of data from the Atlas of Australian Birds during 1977 to 1981 indicates little activity by ornithologists in the Yuinmery area with only 41 species listed in the degree square around YY. Of these species, six were not recorded by us, viz. *Vanellus tricolor*, *Charadrius ruficapillus*, *Himantopus himantopus*, *Recurvirostra novaehollandiae*, *Epthianura aurifrons* and *Artamus minor*. Most of these are nomadic species and would be present after good rains. Our survey of Yuinmery included 78

Table 4. List of birds at Yuinmery survey site indicating numbers seen in each sample site. The intensive study sites (quadrats) are shown in the first columns followed by opportunistic observations. The first figure indicates the total number of individuals, the second figure indicates the number of observations. The three survey periods (June 1979, February 1980 and September-October 1981) are indicated as column 1, 2 and 3 respectively for each sample site. The number of observation days for the quadrat data was 5 and for the opportunistic data was 7. D = Depot Spring; O = Unspecified sites.

SITES	QUADRATS						OPPORTUNISTIC										
	YL3	YL6	YL8	YL13	YL22	YL23	YL3	YL6	YL7	YL8	YL10	YL13	YL22	YL23	MILLS	D	O
CASUARIIDAE <i>Dromaius novaehollandiae</i> Emu				1	X		1					1	1 5 1 2		44A 14		
ARDEIDAE <i>Ardea pacifica</i> Pacific Heron																1 1	
<i>Ardea novaehollandiae</i> White-faced Heron																	3 2
ACCIPITRIDAE <i>Aquila audax</i> Wedge-tailed Eagle							1 1	1 1 1 1					4 2			1 1	2 2
<i>Aquila morphnoides</i> Little Eagle																	1 1
<i>Accipiter cirrocephalus</i> Collared Sparrowhawk																2B 1	
FALCONIDAE <i>Falco longipennis</i> Australian Hobby				1 1				1 1	1 1								3 3
<i>Falco bergeri</i> Brown Falcon	X	X					1 1	1 1	1 1								9 9
<i>Falco sedgeholmes</i> Australian Kestrel				1 1					1 1		3 3	3 3 3 3	2 2	1 1	1 1	1 1	9 9
OSTRACIDAE <i>Oxyechus australis</i> Australian Bustard								1 1	1 1		1 1		6 4		23 12 10 3		4 2
<i>Phaps chaloptera</i> Common Bronzewing			1 1	1 1	1 1	1 1		1 1	1 1			1 1					59 13
<i>Oxyphaps lophotes</i> Crested Pigeon		3 1		X					1 1		10 6 6 4	2 2	7 5		50 100 61 1 20 16		59 13
PSITTACIDAE <i>Platycercus zosterurus</i> Ring-necked Parrot	X	10 6 5 5	6 5		3 4 2 2	3 3 2 1		4 10 2 5	17 17 9 9	5 3 2 1 1 1	10 10 4 4	6 4 3 2	2 18 12 1 6 5	1 1	2 3 12 1 2 7	6 2	14 8
<i>Platycercus varius</i> Mulga Parrot	X	X	X	2 1			4E 2	2 1			1 1	1 1 1 1	2 5 1 3				
<i>Scaphema burkii</i> Bourke's Parrot													2 1	169 119 15 7		2 1	
<i>Melopitta usinulata</i> Budgerigar								5* 1							10 1	11 1	
<i>Vimphurus hollandicus</i> Cockatoo			1 1												5 5 1 1	1 1	
<i>Casatua roseicapilla</i> Galah	X	11 49 6 23		X 57 9	4 2		X 20 32A 1 16	6 2 11 2 2 1 44			25 35 4 10	19 75 4 12	4 63 2 18	30 13	6 276 398 1 20 55	200 2	572 27
<i>Casatua leadbeateri</i> Major Mitchell's Cockatoo																	7 1

Table 4 (cont).

SITES	QUADRANTS					OPPORTUNISTIC											
	Y13	Y16	Y18	Y113	Y122	Y123	Y13	Y16	Y17	Y18	Y110	Y113	Y122	Y123	MHT'S	ID	O
CUCULIDAE																	
<i>Cuculus pallidus</i> Pallid Cuckoo	X						1 1										
<i>Chrysoceryx havasi</i> Horsfield's Bronze Cuckoo									October 1986								
STRIGIDAE																	
<i>Ninox novaeseelandiae</i> Boobook Owl													1 1				
PODARGIDAE																	
<i>Podargus strigoides</i> Tawny Frogmouth			1 1														
AEGIPHILIDAE																	
<i>Agrotheles cristatus</i> Australian Owllet-mightjar					2 2								1 1 1 1			2 2	
CAPRIMULGIDAE																	
<i>Eurostoopodus argus</i> Spotted Nightjar													6 6			6 6	
ALCEDINIDAE																	
<i>Haliaeetus pyrrhopygia</i> Red-rumped Kingfisher	31 3						1 1										
MEROPIIDAE																	
<i>Merops ornatus</i> Rainbow Bee-eater	X			X	2 1	X	3 2	4 1					4 1	3 11 1 2	3 2	4 1	
HIRUNDINIDAE																	
<i>Hirundo ariel</i> Fairy Martin		X															
<i>Cheramoeca leucosterna</i> White-backed Swallow																	3 1
MOIACILLIDAE																	
<i>Anthus novaeseelandiae</i> Richard's Pipit			6 2 6 2						20 7	1 1	4 2				1 1		6 3
CAMPEPHAGIDAE																	
<i>Coracina maxima</i> Ground Cuckoo-Shrike										5 1				2 1			2 1
<i>Coracina novaehollandiae</i> Black-faced Cuckoo-shrike	1 X 1	X 1		1 1	1 1	1 1	5 4	1 1	1 1			3 1 2 1	4 13 2 11	4 3	6 3	6 2	7 5
<i>Lalage sueurii</i> White-winged Triller													1 1				
PACHYCEPHALIDAE																	
<i>Mitroeca leucophaea</i> Jacky Winter			1 1														
<i>Petroica goodenovii</i> Red-capped Robin	2 5 2 5		4 3 6 4 3 5	1 1 14 1 1 9	1 6 17A 1 6 13				2 1		2 2	1 1 5A 1 1 2	2 1 11 1 1 10	1 5 9 1 4 8	10A 7		2 2
<i>Petroica cucullata</i> Hooded Robin			1 4 1 4						2 1			1 1	1 1				
<i>Pachycephala rufiventris</i> Rufous Whistler	X 1 1			1 1 1 1	1 X 5 1 5	1 1 1 1						1 2 1 2	1 1	1 4 5 1 3 5	2 2		
<i>Colluricincla harmonica</i> Grey Shrike-thrush	1 1 1 1					1 3 1 2	1 5 1 5							1 1 1 1			

Table 4 (cont).

SITES	QUADRANTS						OPPORTUNISTIC										
	YL1	YL6	YL8	YL13	YL22	YL23	YL3	YL6	YL7	YL8	YL10	YL13	YL22	YL23	MILLS	D	O
<i>Oreoca gutturalis</i> Crested Bellbird		X	X 3 3	X	X X	X 1 1	5 3 4 3	1 2 1 2				1 1 1 1	5 2 5 2	2 3 2 3			1 1
<i>Psophodes occidentalis</i> Western Wedgebill													4 1				
MONARCHIDAE																	
<i>Rhipidura leucophrys</i> Willy Wagtail	1 X 1			1 1		8- 7	1 2 1 2					1 1	4 4		1 10 1 8	1 1	4 3
ORITHONYCHIDAE																	
<i>Pannastomus superciliosus</i> White-browed Babbler					3 1		6 2								old nest		
ACANITHIZIDAE																	
<i>Aphelocerythra leucophaea</i> Southern Whitelace	13 2				15 4	30A 7			3 30 1 1			6 1	20 5	10 2	2A 1		10 1
<i>Ceryle fusca</i> Western Flycatcher				4 4		1 1						1 1					1 1
<i>Smicronis brevirostris</i> Weebill	8 28 11 3 10 6	20 11 10 6 5 5		41 7 19 9 2 10		5 7 X 2 3	3 2 1 1	13 25 9 5 8 4				12 21 20 5 10 10		2 5 1 1 1 1			2 1
<i>Acanthya opicalis</i> Broad-tailed Thornbill	6 1 3 1			2 1		X \ 11A 5											
<i>Acanthya tabuatastris</i> Slaty-backed Thornbill						5 3											
<i>Acanthya uropygialis</i> Chestnut-rumped Thornbill	3 23 2 1 8 1			22 15 14 6 6 7	13 3 3E 5 1 1	4 13 18 2 5 6	5 1					9 4 16 4 2 7	2 13 15E 1 4 8	10 9 3 3			2 1
<i>Acanthya chlororhoa</i> Yellow-rumped Thornbill	4 1			3 3 1 1								2 3 1 1 1 1					
<i>Pertholampus braconius</i> Redthroat						3 3 2 3								2 1			
<i>Calamanthus fuliginosus</i> Calamanthus			1 2 1 1							3 3							
MALURIDAE																	
<i>Malurus splendens</i> Splendid Fairy-wren						3 2 1 1											
<i>Malurus lamberti</i> Variegated Fairy-wren	2 1																6 1
<i>Malurus leucopterus</i> White-winged Fairy-wren									7 1 2 1								
SYLVIIDAE																	
<i>Cincloramphus cruralis</i> Brown Songlark		1 1															
DAPHOENOSITTIDAE																	
<i>Daphoenositta chrysoptera</i> Australian Sitella												2 1					
CLIMACTERIDAE																	
<i>Chimacteris affinis</i> White-browed Tree-creeper		X		1 4 1 3		6 4 9 1 1 6		3 1			4 1 2 1	3 2 5 1 2 5	1 1	5 6 3 5			
DICAEDIDAE																	
<i>Dicaeum hirundinaceum</i> Mistletoebird	1 1			X X 7 5	X 2 3 2 3	9 8	1 1	1 1 1 1				1 1 2 1 1 2	2 3 2 2	1 1			4 3
PARDALOPIDAE																	
<i>Pardalopus striatus</i> Striated Pardalote	9 3 2 1	1 1		7 1 2 2			2 5 1 3	1 20* 1 3 5				1 1					10 1

Table 4 (cont).

SITES	QUADRATS						OPPORTUNISTIC										
	YL3	YL6	YL8	YL13	YL22	YL23	YL3	YL6	YL7	YL8	YL10	YL13	YL22	YL23	MILLS	D	O
MELIPHAGIDAE																	
<i>Certhium variegatus</i> Pied Honeyeater									October 1986								
<i>Phylidonyris albifrons</i> White-fronted Honeyeater							October 1986		October 1986					October 1986			
<i>Melphaga virescens</i> Singing Honeyeater				3 1	X X	3 13E 3 11	X			2 2		1 1 1 3	4 6 10 4 6 '9		1 1	7 3	
<i>Melphaga plumula</i> Yellow-fronted Honeyeater	X 3 8 2 5							4 11 9 1 5 6							4 2		
<i>Manarina flavigula</i> Yellow-throated Miner	4 X 1 3 1	46 17 25 6 7 17		2 12 17 1 3 6	X		1 3 8 1 1 1	38 51 39E 5 9 11			3 10E 1 6	2 11 17 1 4 8	6 13 3 1 2 1	2 1	4 44 13 1 7 6	14 2	22E 6
<i>Acanthagenys rutogularis</i> Spiny-cheeked Honeyeater	2 2 1 2			X 2 2	7 4 4E 3 4 3	X 1	1 1		1 1 1 1		1 1	1E 9 1 8	6 28 14 6 20 11	1 1	3 1 2 1	2 1	1 1
<i>Ephianura tricolor</i> Crimson Chat																	4 1
PLOCEIDAE																	
<i>Poephila guttata</i> Zebra Finch									1 16 1 4						67 9 4 2	46 3	14 2
GRALLINIDAE																	
<i>Grallina cyanoleuca</i> Magpie-lark		1 X 1						1 8 1 4					1 1		4 1 2 1	3 2	1 1
ARTAMIDAE																	
<i>Artamus leucorhynchus</i> Black-faced Wood-swallow	7 1			1 4 1 1	X X		5 2		3 8 1 6		4 1	1 1	10 7 2 4		6 1		20 7
<i>Artamus personatus</i> Masked Wood-swallow	X					X X	*N							6 *N 2			
CRACIDAE																	
<i>Cracticus torquatus</i> Grey Butcherbird	1 1 1 1				1 X 1	X X	1 4 1 4	1 1			2 2		3 1 3 1	2 2 2 2			1 1
<i>Cracticus nigrogularis</i> Pied Butcherbird	X	2 4 1 2 4 2		2 1	1 1		4 2	9 11 11 5 6 5			2 1	1 1	2 2			2 1	3 2
<i>Cracticus tibicen</i> Magpie	X	2 1E 1 1		2 1			2 1	1 3 17 1 2 7					1 1		2 1	2 1	8 4
<i>Strepera versicolor</i> Grey Currawong	1 1						1 1										
PARADISAEIDAE																	
<i>Parinari pumila</i> Western Bowerbird													bower 1		2 1		3 2
CORVIDAE																	
<i>Corvus orru</i> Australian Crow	1 X 1	X		X 6 4			1 4 1 1	3 2 2 2	5 1	2*		2 2 2 2	1 1		4 3	5 3	
<i>Corvus bennetti</i> Little Crow	2E 2	X		4 1	X		1 3 1 2	4 13* 1 3			3 5 3 3	3 2	16 4	2 2	8 62 20 1 14 7		16 2
<i>Corvus coronoides</i> Australian Raven									2 1								

O = overhead only
A = includes adults with young
E = nestlings not included in count
F = eggs not included in count
I = footprints
N = numerous
B = breeding

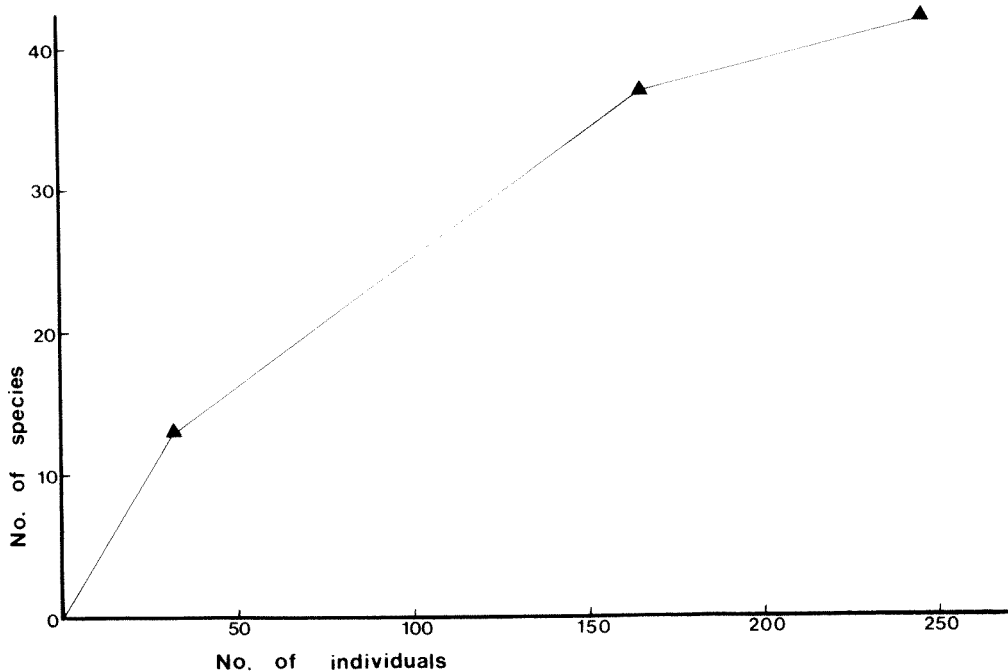


Figure 4 Number of reptile and amphibian species and the number of individuals caught at the Yuinmery Study Site. Data are accumulated for the three study periods.

species, 47 of which were not included in the surrounding degree square by the Atlas of Australian Birds.

Few birds were recorded breeding during our surveys. Appendix II lists breeding data for 13 species. Most of these data were obtained in September and October — the only exception was chicks of *Manorina flavigula* in March.

Mammals

Twenty-two species of mammal from 9 families were recorded from the Yuinmery survey area (Table 5); these comprised 16 native species and 6 exotics.

No previous surveys had been undertaken in the area, and limited records of macropods were the only specimens in museum collections (Kitchener & Vicker 1981).

The area has a diverse array of small dasyurids with six species, four of which are in the genus *Sminthopsis*. This high diversity of dasyurids was the catalyst for further sampling in the area in 1986 (D. King pers. comm.). The observation of *A. laniger* was made whilst floodlighting for bats adjacent to Nine-mile Well.

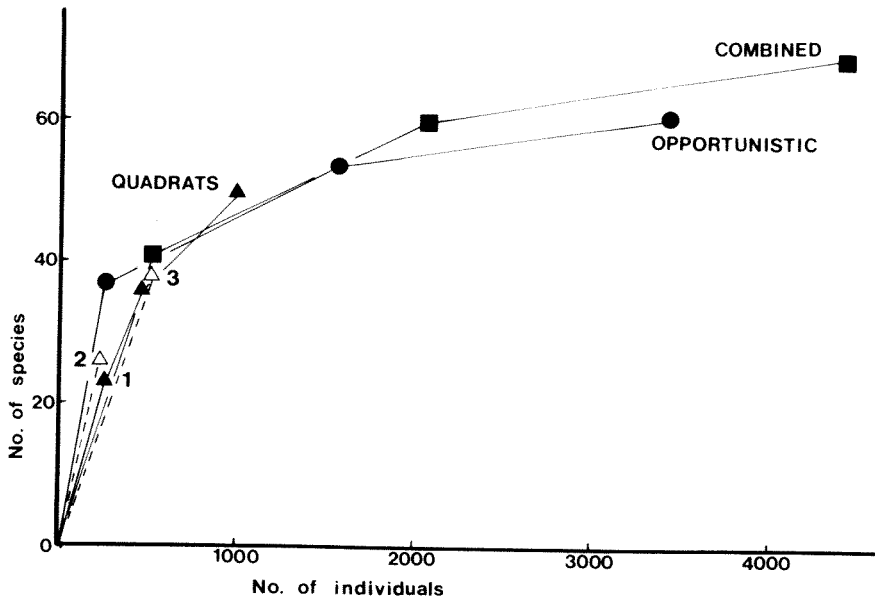


Figure 5 The cumulative number of bird species and number of individuals recorded for the three study periods at Yuinmery. Data collected on bird quadrats are indicated separately for each study period (1, 2, 3) and combined as quadrat totals. Data collected opportunistically is indicated separately and also combined with quadrat data.

All bat species were collected adjacent to watering points either by mist-netting or shooting. The lack of free standing water during the survey made this an effective sampling approach.

The rodent fauna was neither diverse or abundant. The 1979-81 survey did not record *Notomys mitchellii* at any site, however, in 1986 King (pers. comm.) collected four specimens of this species on a single night at widely dispersed localities. One of these sites, Marble Gum Woodland, had been extensively trapped during the main survey period.

Seasons with average or below average rainfall in the years preceding the survey probably accounted for the low numbers of individuals recorded in all habitats. Heavy grazing of herbs by sheep and shrubs by goats has also markedly modified the habitat structure of all areas except those distant from wells and bores. Rabbits and both species of kangaroo were recorded in low numbers on all trips.

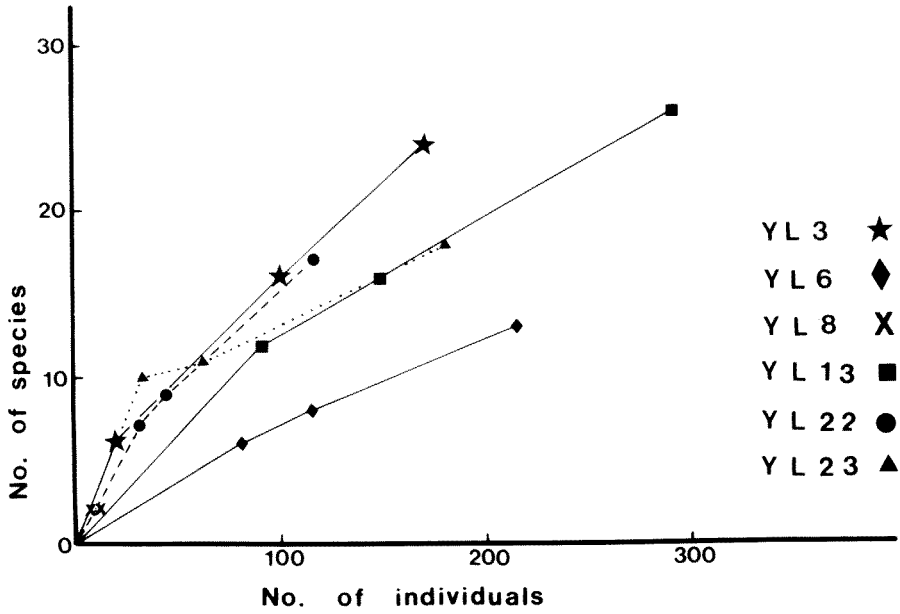


Figure 6 The accumulation during the three study periods of number of bird species and total number of individuals at each of the six census quadrats at Yuimery.

Table 5. Mammals recorded at Yuinmery Survey Area. Tracks are indicated by T and sightings by O. Totals for the three trips (May 1979, February 1980, October 1981) are indicated and * refers to captures during September 1986.

Landform Unit: Sample Site No. (YL):	D 3	L 6	L 7	L 8	L 9	P 10	S 13	V 22	V 23	Ram arcs	Rich- ards	20 Mile	Trip M	Totals F	O	*
TACHYGLOSSIDAE																
<i>Tachyglossus aculeatus</i>									T	T						
DASYURIDAE																
<i>Antechinomys laniger</i>													O			
<i>Ningai ridei</i>							2						1	1	2	
<i>Sminthopsis crassicaudata</i>			1	3	3								3		4	9
<i>S. dolichura</i>	3	3		1			4		4				2	11	2	5
<i>S. hirtipes</i>							2							2		3
<i>S. macroura</i>					1								1			
MACROPODIDAE																
<i>Macropus robustus</i>	0								0	0	0					
<i>M. rufus</i>	0		0			0	0	0	0	0	0					
MOLOSSIDAE																
<i>Mormopterus planiceps</i>		1														1
VESPERTILIONIDAE																
<i>Chalinolobus gouldii</i>		2							5	1	5	6	2	10	7	
<i>Eptesicus regulus</i>									1		1			2		
<i>Scotorepens balstoni</i>									3	1	3	2	1	7	1	
<i>Nyctophilus geoffroyi</i>										2	2	7	1	2	8	
MURIDAE																
<i>Mus domesticus</i>			2	1									2	1	2	
<i>Notomys mitchellii</i>																4
<i>Pseudomys hermannsburgensis</i>		1	3				3		3				1	7	2	
CANIDAE																
<i>Vulpes vulpes</i>		T		T	T											
BOVIDAE																
<i>Bos taurus</i>														0		
<i>Capra hircus</i>	0	0	0	0	0	0	0	0	0	0	0					
<i>Ovis aries</i>	T							T	0	T	0	0				
LEPORIDAE																
<i>Oryctolagus cuniculus</i>		0				0						0				2