Birds of Katjarra and nearby areas in the Birriliburu Indigenous Protected Area

Report to the Birriliburu Native Title Claimants and Central Desert Native Title Services



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Cover photographs: Western Bowerbird, Katja Kerrylyn, May 2014	arra area, and Australian Bustard tracks, south of Lake

Abstract

We surveyed birds and collated historical data on bird occurrence in the Katjarra (Carnarvon Range) area within the Birriliburu Indigenous Protected Area (IPA), approximately 170 km north of Wiluna. A total of 115 bird species are known from the general area, and 103 species from within the boundaries of the IPA. At 20 survey sites sampled in more detail in May 2013 and May 2014, we recorded 65 bird species. The Australian Shelduck, Rufous Songlark and Tree Martin (recorded by us) are new for the list of species known from the IPA. Two species classified as Vulnerable have been recorded in the IPA: Malleefowl and Grey Falcon. Three Priority List species (Australian Bustard, Bush Stone-curlew and Striated Grasswren, all P4) are also known from the area. In the Katjarra area at least 10 species are at or near the limits of their distribution in the Western Deserts.

Introduction

Gibson *et al.* (2014) provide the following summary of the Katjarra area: "The IUCN Category 6 Birriliburu IPA was declared on 23rd April 2013 over lands held by the Birriliburu native title holders. Within the Birriliburu IPA there are three IUCN Category 3 specially protected areas of which Katjarra is one. The Katjarra specially protected area is roughly rectangular, 50 km east-west and 40 km north-south, covers an area of some 1997.4 km² and is located approximately 160 km NNW of Wiluna The southern and south western section of Katjarra falls within the Gascoyne bioregion with its lateritic surface and alluvial plains dominated by mulga woodlands and shrublands while extensive spinifex dominated sand dunes and sandplains and the sparsely vegetated ranges of the remaining area fall within the Little Sandy Desert bioregion The Katjarra area captures the central and southern portion of the extensive Carnarvon Range, in particular the sandstone massifs associated with Mt Methwin." Further detail concerning the regional context is provided by May and McKenzie (2003).

The opening of the nearby Canning Stock Route in the early 1900s (Leighton 2007) enabled access to the region by ornithologists, but there seems to have been little activity in or near the Katjarra area until the 1970s. From the mid-1970s, individual observers began to access the area (Reid 1976) and at about the same time, the Department of Fisheries and Wildlife and the Western Australian Museum carried out a series of surveys in the Little Sandy Desert, including work in the Katjarra area (McKenzie and Burbidge 1979; Johnstone *et al.* 1979) (R.E. Johnstone visited in 1975, 1976 and 1983). Since that time, the area has been visited intermittently by staff from the Department of Parks and Wildlife and its predecessors (including A. Chapman, D. Pearson, J. Blyth and I. Kealley), and a number of interested birdwatchers. From an ornithological perspective, the most thorough of these more recent efforts has been the expeditions by the Western Australian Naturalists Club from 1998 to 2001 (Coate 2003) and the Department of Conservation and Land Management (now Department of Parks and Wildlife) in 2001 (Kenneally *et al.* 2002). A bioregional survey of the south western Little Sandy Desert was carried out in 1995-1999 (van Leeuwen 2002) but the study area for this was to the north of Katjarra.

As part of biological survey work in 2013 and 2014, we undertook a survey of birds in the area around Katjarra, in order to provide an up to date summary of knowledge that could be used to support future management of the area.

Methods

The study area has been described and defined by Kenneally et al. (2002), Coate and Edinger (2003) and Gibson *et al.* (2014). Cowan (2015) provides descriptions and photographs of the sampling sites used in 2013 and 2014.

We recorded birds at selected sampling sites in the broader Katjarra area, noted birds seen opportunistically, and collated historical records from the general area. We defined the general area as a rectangle occurring between 24 degrees 45 minutes S, 120 degrees 0 minutes E, and 25 degrees 30 minutes S and 121 degrees 15 minutes E (the area shown in Appendix 1). Sampling sites (Figure 1) were those used in a trapping survey for mammals, reptiles and amphibians (Cowan 2015), and were sampled from 13-24 May 2013 and from 13-22 May 2014. Details of site selection, together with site locations, descriptions and photographs, are given by Cowan (2015). Each site was visited at least twice in each sampling year. All sites were visited at least once early in the morning, and some sites were also visited at other times of day. Not all sites were sampled with equal effort, as some of the sampling was opportunistic, around checking of traps for terrestrial vertebrates and other survey activities. Targeted call playback was used at some sites, particularly for cryptic species including emuwrens (Stipiturus) and grasswrens (Amytornis). In both years, two camera traps were placed at waterholes, partly with the intent to sample for Night Parrots (Pezoporus occidentalis). In addition, in August 2012, May 2013 and March-April 2014, other camera traps were also placed on rocky areas in order to detect a range of mammal and other species, including at CR1 E7/E8 (Cowan 2015). In 2014, two autonomous recording units ARUs) were deployed at waterholes, again in an attempt to detect Night Parrots coming in to drink. These were stationed at Virgin Springs, Talbot Waterhole and Good Camp Rockhole. A mist net was deployed at Good Camp Rockhole in 2013, but no birds caught. In 2013, some spotlighting was carried out, partly in an attempt to detect nocturnal bird activity, including possible Night Parrot activity.

Our opportunistic records (made when travelling between sampling sites, or when particular sites or vegetation types were targeted) were added to historical records compiled from bird lists gathered by various personnel from Parks and Wildlife and pre-cursor departments (especially Andy Chapman and John Blyth), from the published literature (especially Coate 2003) and from the BirdLife Atlas of Australian Birds and from museum collections via NatureMap and the Atlas of Living Australia. This resulted in some duplication of records, because some records occur in more than one source. The extent of duplication is unknown because of the way data have been recorded and stored, meaning that identification of duplicate records is often not possible. Contemporary and historical records were compiled into an Access database. All records were vetted for accuracy, and any records that appeared doubtful were removed from the database.

Results

Birds at sampling sites

Over the two visits to the 20 sample sites, plus camera trap records for site CR1 E7/E8, 65 species of birds were recorded (Table 1). Considering just the human observations in 2013 and 2014, the average number of species per site was 12.7 ± 6.6 SD and the richest site was CR1 P4, with 24 species. However, inclusion of camera trap records from 2012, 2013 and 2014 (Table 2) brought the total for CR1 E7/E8 to 29 species. With these records included, the

mean number of species per site was 13.1 ± 7.1 SD, demonstrating the impact of more intensive sampling. We only recorded one species at CR2 E11, suggesting that the site was under-sampled. The most widely recorded species in 2013-14 was the Singing Honeyeater, which was recorded at 19 (95%) of the sites. Other widely recorded species were the Zebra Finch (15 sites, 75%), Spiny-cheeked Honeyeater (14, 70%), Grey Shrike-thrush (11, 55%) and Rufous Whistler (10, 50%). On the other hand, 27 species were recorded at only a single site.

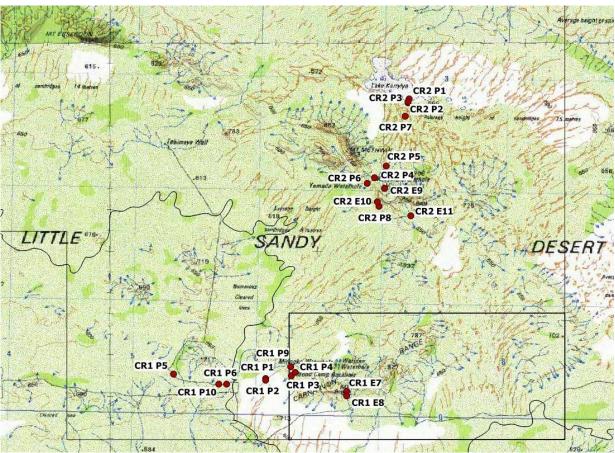


Figure 1. Locations of main bird survey sites in the Katjarra area (see Cowan 2015 for details of sites).

Historical records

A total of 115 bird species (Table 3) are known from the general area, as defined by the map in Appendix 1. One other species, the Masked Owl, has been doubtfully recorded from nearby parts of the Canning Stock Route (Ford 1968; Johnstone and Storr 1998). All accepted records are mapped in Appendix 1.

Within the IPA, 103 bird species are known (Table 3). Species occurring in the broader area but not in the IPA were mostly waterbirds (Black Swan, Grey Teal, Pacific Black Duck, Hardhead, Hoary-headed Grebe, White-necked Heron, Eurasian Coot and Red-capped Plover) and at least some of these might be expected to occur in the IPA following exceptional rains. Amongst the remaining species, the Inland Dotterel, Banded Lapwing and Banded Whiteface all prefer very open areas, especially on hard surfaces, and so may not occur within the IPA. The Little Corella probably occurs at times.

We recorded three species not previously known from the IPA: Australian Shelduck, Rufous Songlark and Tree Martin.

No introduced species were recorded.

Discussion

Many arid zone birds have wide distributions, so it is not surprising that assemblage composition of bird species at our sample sites was broadly similar to that found in the Carnarvon Basin (Burbidge *et al.* 2000) and the Pilbara (Burbidge *et al.* 2010). Indeed, many of the commonly recorded species at Katjarra, such as Singing Honeyeater and Zebra Finch, were also frequently recorded at sites in the Carnarvon Basin and in the Pilbara. Average species richness at sites was much higher in the Carnarvon Basin (29) and in the Pilbara (19) compared with Katjarra (13), probably for two reasons: (a) the Carnarvon Basin and Pilbara are closer to the coast and have higher rainfall than is found in the Little Sandy Desert and (b) sampling intensity was lower at Katjarra, primarily because we only sampled (twice) in the same season (May of each year). Burbidge and Fuller (2007), working in the Gibson Desert, found higher species richness per site than we did, but they employed a much more intensive sampling regime, they sampled in various conditions from just after rain through to drought, and their sites were very much bigger than ours. They demonstrated significant responses to rainfall, suggesting that visits to Katjarra following periods of differing environmental conditions would result in more variable results than we found during our visits.

The total number of birds recorded in the Katjarra area (115) is lower than at Lorna Glen (total 148 species: Coate 2010; M. Blythman *et al.* unpubl.). This is probably a reflection of the ongoing and sometimes intense survey effort that has occurred at Lorna Glen over the last two decades, and the fact that Lorna Glen has been sampled under a broad range of environmental conditions by numerous observers (e.g. Cowan 2004; Coate 2010; Dunlop and Morris 2009). Further sampling in the Birriliburu IPA is likely to extend the bird list, as species such as the Australasian Grebe, Grey Teal, Pacific Black Duck, White-necked Heron and Stubble Quail have been recorded not far away, and these and others are highly mobile and likely to occur in the IPA at times when conditions are suitable. Lyndsey Gordon Lagoon, 160 km to the SE at Lorna Glen (Matuwa), supports a range of waterbirds when it is flooded (Coate 2010), and at least some of these are likely to be present on Lake Kerrylyn when it holds a significant amount of water. However, the current list is likely to be relatively complete for terrestrial species, given the effort that has gone in to sampling over the last few decades.

Sightings of rare or threatened birds in the area are few. There is only one known sighting of Malleefowl (Vulnerable) in the survey area, which was near Virgin Springs in 1974 (K. Farmer in Coate 2003). No old mound or any other evidence of Malleefowl presence was identified during our surveys. Although we did not record any Grey Falcons (Vulnerable) the species has reliably been recorded in the nearby Marymia area (John and Judy Blyth, pers. comm.; one seen in June 1991) and more recently (August 2012) an unknown observer reported the species from the Katjarra area (ALA record).

We did, however, record the presence of Australian Bustards (currently P4) in a number of locations. The Bush Stone-curlew (P4) has been recorded once in the Katjarra area, by A. Chapman and S. Hazeldon, in October 1993. We were unsuccessful in locating any Striated Grasswrens (P4), and the last known sighting in the area was by J. Blyth in 1991 (Coate 2003).

However, the species is very cryptic and sometimes difficult to detect. It is possible that detection would increase if call playback was used during the breeding season, around July to October (Johnstone and Storr 2004) as this would likely elicit a stronger response from territorial individuals. Using playback during the breeding season is a survey method recommended in the Commonwealth guidelines for surveying a number of other species of threatened grasswrens (Department of the Environment Water Heritage and the Arts 2010).

A number of records of birds in the IPA represent individuals that are at or near the limits of their geographic range. These include the Grey-fronted Honeyeater and Splendid Fairy-wren which are at or near the northern limits of their distribution in this part of the state. The Greyheaded Honeyeater is near the southern limit of its distribution, the Spinifex Pigeon is at its southern limit in the IPA, and this population is well separated from all other populations of this species (Johnstone 1981). The Australian Shelduck and Grey-crowned Babbler are near the eastern limits of their distribution in the Western Deserts. The Western (Spotted) Bowerbird occurs also about 150 km SE at Lorna Glen, but is nevertheless near the eastern limit of the western population of this species, which is geographically separated from the population around the Central Ranges. The Tree Martin is near its usual eastern limit in the Western Deserts, although dispersing individuals sometimes occur further east. The Bush Stone-curlew is probably not resident (last recorded in 1993) but this record represents the eastern limit of the distribution of this species in the Western Deserts. The Tawny Frogmouth and Yellow-rumped Thornbill are at their north-eastern limit in the Western Deserts, with the next nearest populations being at least 500 km further east. The number of species at their distributional limits is probably a reflection of the size of the ranges with their relatively deep gorges and the associated permanent pools and well-developed run-on areas, which provide a range of different habitats together with refuge areas where species could persist during drought conditions.

Cats and foxes have been detected at various sites in the IPA, especially near waterholes (Cowan 2015). These introduced predators are likely to have detrimental impacts on populations of ground foraging birds, especially those that come into water to drink, such as the Spinifex Pigeon, and those that nest on the ground, such as the Bush Stone-curlew. At least some ground foraging bird species (Malleefowl, Australian Bustard, Bush Stone-curlew) can be readily monitored via plots set up for the detection of animal tracks, and those coming in to water could potentially be monitored through the use of camera traps.

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Table 1: Bird species recorded at 20 sites in the Katjarra area, in May 2013 and May 2014. See Figure 1 and Cowan (2015) for locations and descriptions of sites.

	CR1 E7	CR1 E7/E8	CR1 E8	CR1 P1/P2	CR1 P10	CR1 P3	CR1 P4	CR1 P5	CR1 P6	CR1 P9	CR2 E10	CR2 E11	CR2 E9	CR2 P1	CR2 P2/P3	CR2 P4	CR2 P5	CR2 P6	CR2 P7	CR2 P8
	E/	E//E8	EO	P1/P2	P10	P3	Ρ4	PO	PO	P9	E10	C11	E9	PI	P2/P3	Ρ4	PO	PO	Ρ/	Põ
Emu		1											1			1	1		1	
Common Bronzewing		1					1													
Crested Pigeon							1			1										
Spinifex Pigeon		1																		
Diamond Dove		1					1													
Australian Owlet-nightjar							1													
Black-shouldered Kite							1								1					
Whistling Kite								1												
Brown Goshawk		1														1				
Spotted Harrier		1																		
Nankeen Kestrel				1																
Brown Falcon		1		1				1												
Australian Bustard				1																
Little Button-quail				1				1												
Galah		1		1																
Australian Ringneck			1				1			1			1			1	1			
Mulga Parrot		1																		
Budgerigar		1	1	1				1			1				1	1		1		1
Bourke's Parrot								1												
Black-eared Cuckoo														1	1					
Pallid Cuckoo							1													
Southern Boobook							1									1				
Eastern Barn Owl							1	1												
Western Bowerbird		1				1	1		1		1		1							
Splendid Fairy-wren									1		1					1				

Variegated Fairy-wren Rufous-crowned Emu-wren					1										1 1					
Rufous Fieldwren														1	1				1	
Weebill	1	1	1				1						1			1				1
Western Gerygone								1												
Slaty-backed Thornbill									1											
Yellow-rumped Thornbill								1												
Chestnut-rumped Thornbill								1	1									1		
Inland Thornbill		1	1		1			1	1							1				
Red-browed Pardalote	1		1	1		1	1						1			1				
Singing Honeyeater	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1
White-plumed Honeyeater		1					1													
White-fronted Honeyeater						1	1			1			1		1	1	1	1	1	
Yellow-throated Miner				1		1	1								1	1				
Spiny-cheeked Honeyeater	1	1	1	1		1	1	1		1	1		1			1	1	1		1
Crimson Chat				1																
Brown Honeyeater	1		1			1	1					1	1			1		1		1
Grey-crowned Babbler								1	1											
Chestnut-breasted Quail-thru	ush							1												
Ground Cuckoo-shrike									1											
Black-faced Cuckoo-shrike							1									1		1	1	
White-winged Triller				1																
Rufous Whistler	1	1		1	1			1	1		1		1			1				1
Grey Shrike-thrush			1		1	1	1	1	1		1		1			1	1	1		
Crested Bellbird			1	1	1			1	1											1
Black-faced Woodswallow				1										1	1					
Little Woodswallow											1									
Grey Butcherbird			1			1										1	1	1		1
Pied Butcherbird				1	1	1			1						1		1		1	
Grey Fantail		1																		
Willie Wagtail		1				1	1	1		1	1		1		1	1				
Torresian Crow		1			1					1						1				
Red-capped Robin		1																		
Rufous Songlark							1													
Brown Songlark															1					

White-backed Swallow				1									1				
Fairy Martin								1							1		
Mistletoebird	1		1			1	1		1	1							
Zebra Finch		1	1	1	1	1	1	1	1	1	1	1	1	1		1	1
Painted Finch										1							

Table 2: List of birds detected in the Katjarra area using remote sensing cameras in August 2012, May 2013, March-April 2014 and May 2014.

Common Name	Site CR1 E7/E8	Virgin Springs	Good Camp Rockhole
Spinifex Pigeon	2012		2012
Common Bronzewing	2012, 2013	2013	2012
Diamond Dove	2012		
Spotted Harrier			2013
Brown Goshawk	2013, 2014		2012
Wedge-tailed Eagle		2014	
Galah	2012		
Budgerigar	2012		
Western Bowerbird	2012		2012, 2013
White-plumed Honeyeater	2013		
Spiny-cheeked Honeyeater	2014		
Honeyeater sp.	2012		
Pied Butcherbird		2014	
Willie Wagtail	2013		
Torresian Crow			2014
Corvus sp. (probably Torresian Crow)	2012, 2013		
Zebra Finch	2012, 2013		2012, 2013

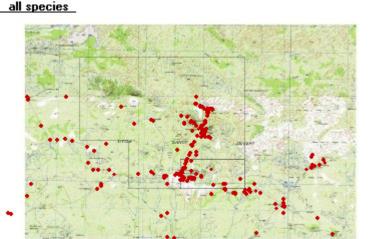
Table 3: List of bird species known from the Katjarra area (see text for details).

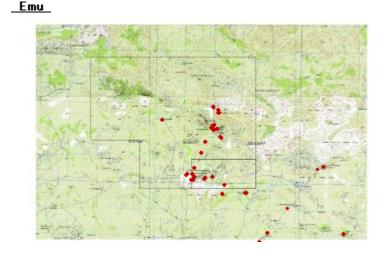
Common Name	General area	Birriliburu	Present survey
Emu	1	1	1
Malleefowl	1	1	
Black Swan	1		
Australian Shelduck	1	1	1
Grey Teal	1		
Pacific Black Duck	1		
Hardhead	1		
Hoary-headed Grebe	1		
Common Bronzewing	1	1	1
Crested Pigeon	1	1	1
Spinifex Pigeon	1	1	1
Diamond Dove	1	1	1
Tawny Frogmouth	1	1	
Spotted Nightjar	1	1	
Australian Owlet-nightjar	1	1	1
White-necked Heron	1		
Black-shouldered Kite	1	1	1
Square-tailed Kite	1	1	
Black-breasted Buzzard	1	1	1
Whistling Kite	1	1	1
Brown Goshawk	1	1	1
Collared Sparrowhawk	1	1	
Spotted Harrier	1	1	1
Wedge-tailed Eagle	1	1	1
Little Eagle	1	1	
Nankeen Kestrel	1	1	1
Brown Falcon	1	1	1
Australian Hobby	1	1	1
Grey Falcon	1	1	
Peregrine Falcon	1	1	
Eurasian Coot	1		
Australian Bustard	1	1	1
Bush Stone-curlew	1	1	
Red-capped Plover	1		
Inland Dotterel	1		
Black-fronted Dotterel	1	1	
Banded Lapwing	1		
Little Button-quail	1	1	1
Galah	1	1	1
Little Corella	1		
Cockatiel	1	1	1
Australian Ringneck	1	1	1
Mulga Parrot	1	1	1

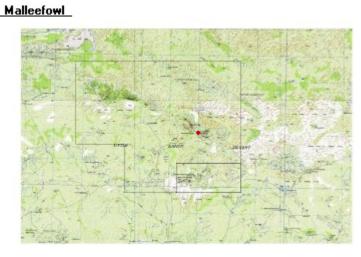
Budgerigar	1	1	1	
Bourke's Parrot	1	1	1	
Horsfield's Bronze-Cuckoo	1	1	1	
Black-eared Cuckoo	1	1	1	
Pallid Cuckoo	1	1	1	
Southern Boobook	1	1	1	
Eastern Barn Owl	1	1	1	
Red-backed Kingfisher	1	1		
White-browed Treecreeper	1	1		
Western Bowerbird	1	1	1	
Splendid Fairy-wren	1	1	1	
White-winged Fairy-wren	1	1	1	
Variegated Fairy-wren	1	1	1	
Rufous-crowned Emu-wren	1	1	1	
Striated Grasswren	1	1		
Rufous Fieldwren	1	1	1	
Weebill	1	1	1	
Western Gerygone	1	1	1	
Slaty-backed Thornbill	1	1	1	
Yellow-rumped Thornbill	1	1	1	
Chestnut-rumped Thornbill	1	1	1	
Inland Thornbill	1	1	1	
Southern Whiteface	1	1	1	
Banded Whiteface	1			
Red-browed Pardalote	1	1	1	
Striated Pardalote	1	1	1	
Pied Honeyeater	1	1		
Singing Honeyeater	1	1	1	
Grey-headed Honeyeater	1	1		
Grey-fronted Honeyeater	1	1		
White-plumed Honeyeater	1	1	1	
White-fronted Honeyeater	1	1	1	
Yellow-throated Miner	1	1	1	
Spiny-cheeked Honeyeater	1	1	1	
Crimson Chat	1	1	1	
Orange Chat	1	1		
Black Honeyeater	1	1		
Brown Honeyeater	1	1	1	
Grey-crowned Babbler	1	1	1	
White-browed Babbler	1	1	1	
Chestnut-breasted Quail-thrush	1	1	1	
Chiming Wedgebill	1	1	-	
Varied Sittella	1	1		
Ground Cuckoo-shrike	1	1	1	
Black-faced Cuckoo-shrike	1	1	1	
White-winged Triller	1	1	1	
Time Willbea Time!	_	_	_	

Rufous Whistler	1	1	1
Grey Shrike-thrush	1	1	1
Crested Bellbird	1	1	1
Masked Woodswallow	1	1	
Black-faced Woodswallow	1	1	1
Little Woodswallow	1	1	1
Grey Butcherbird	1	1	1
Pied Butcherbird	1	1	1
Australian Magpie	1	1	1
Grey Fantail	1	1	1
Willie Wagtail	1	1	1
Little Crow	1	1	1
Torresian Crow	1	1	1
Magpie-lark	1	1	1
Red-capped Robin	1	1	1
Hooded Robin	1	1	
Rufous Songlark	1	1	1
Brown Songlark	1	1	1
White-backed Swallow	1	1	1
Welcome Swallow	1	1	
Fairy Martin	1	1	1
Tree Martin	1	1	1
Mistletoebird	1	1	1
Zebra Finch	1	1	1
Painted Finch	1	1	1
Australasian Pipit	1	1	1

Appendix 1. Maps of the distribution of records for each bird species known from the Katjarra area and surrounds. The first map includes all records for all species; this map therefore provides a measure of geographic coverage in the area. Not surprisingly, most records come from the vicinity of the main access tracks, from around the ranges, and from near Lake Kerrylyn.



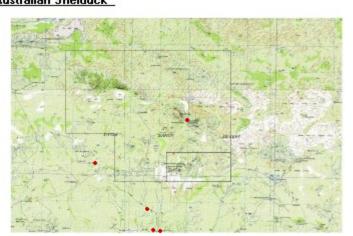




Black Swan



Australian Shelduck



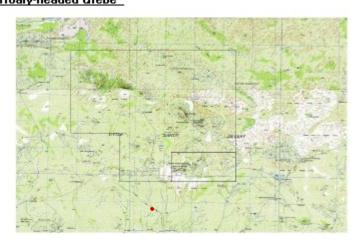
Grey Teal



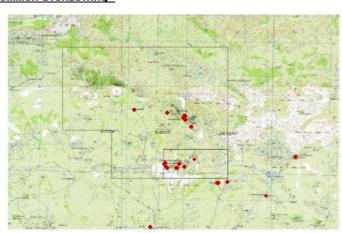
Pacific Black Duck



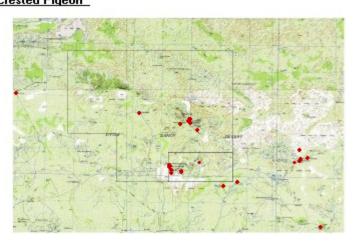
Hoary-headed Grebe



Common Bronzewing



Crested Pigeon



Spinifex Pigeon

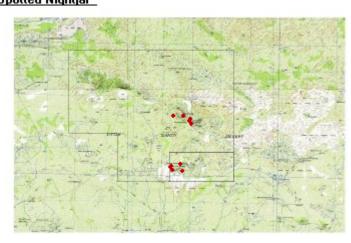


Diamond Dove

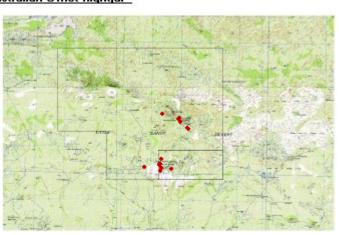
Tawny Frogmouth



Spotted Nightjar



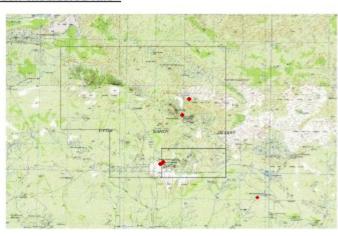
Australian Owlet-nightjar



White-necked Heron



Black-shouldered Kite

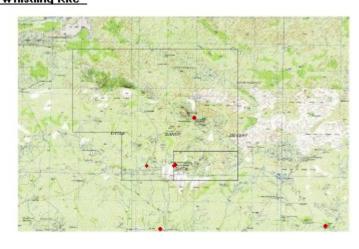


Square-tailed Kite

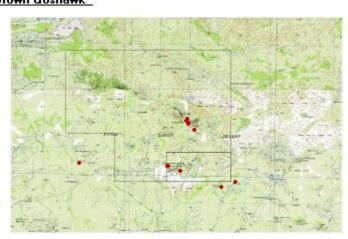
Black-breasted Buzzard



Whistling Kite



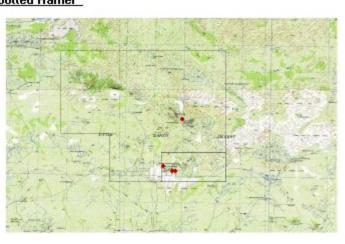
Brown Goshawk

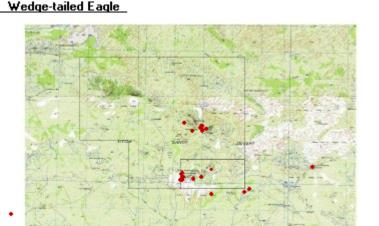


Collared Sparrowhawk



Spotted Harrier

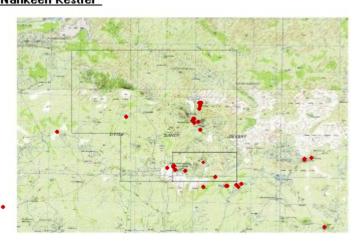




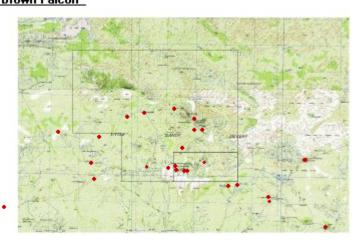




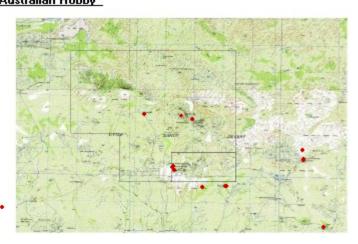
Nankeen Kestrel



Brown Falcon

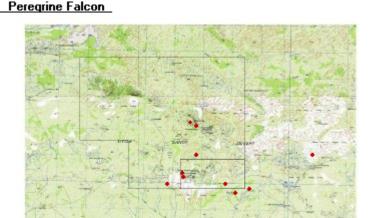


Australian Hobby



Grey Falcon

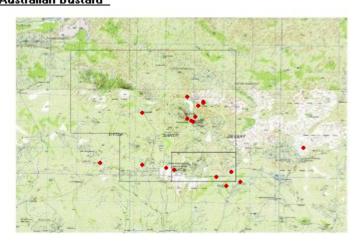




Eurasian Coot



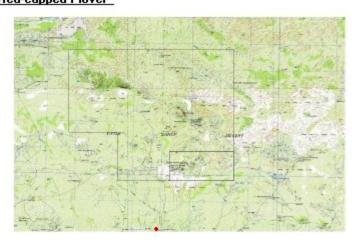
Australian Bustard



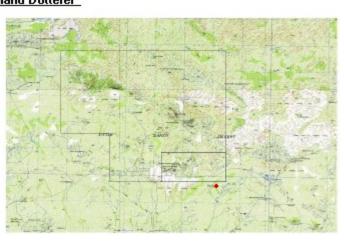
Bush Stone-curlew



Red-capped Plover



Inland Dotterel



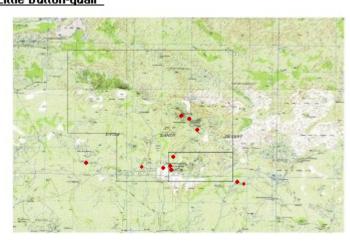
Black-fronted Dotterel



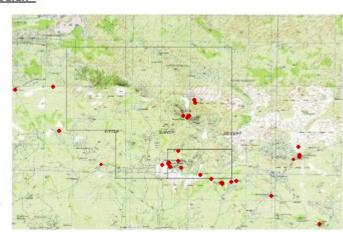
Banded Lapwing



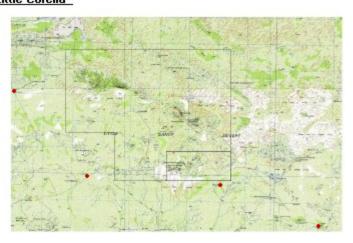
Little Button-quail



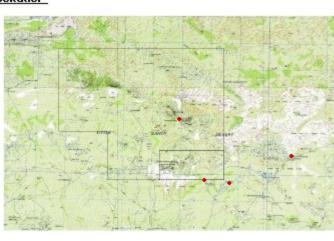
Galah



Little Corella

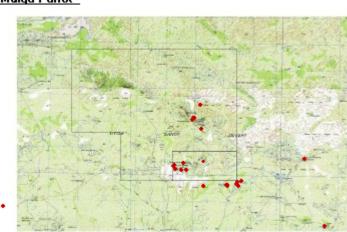


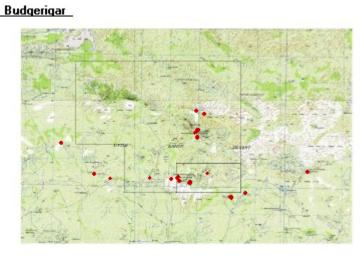
Cockatiel



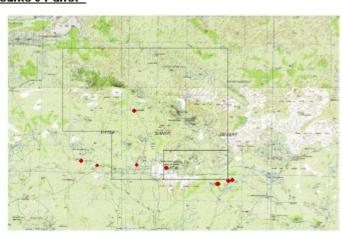
Australian Ringneck

Mulga Parrot

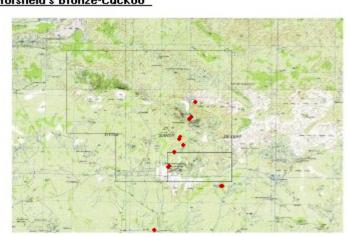




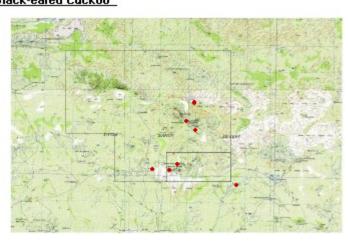
Bourke's Parrot



Horsfield's Bronze-Cuckoo



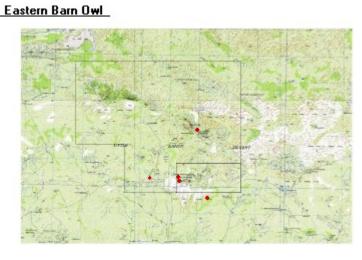
Black-eared Cuckoo



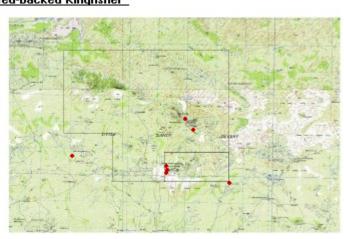
Pallid Cuckoo

Southern Boobook

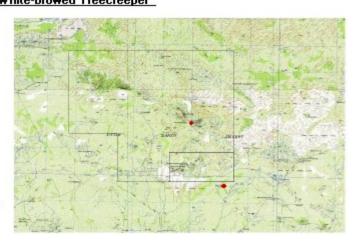




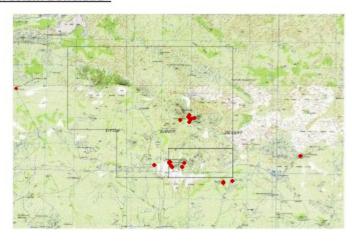
Red-backed Kingfisher



White-browed Treecreeper

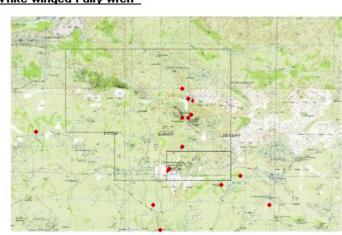


Western Bowerbird

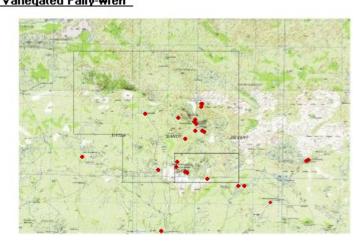


Splendid Fairy-wren

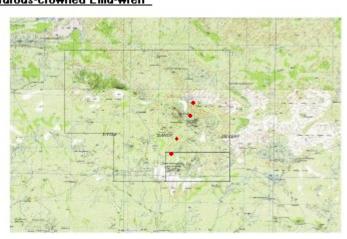
White-winged Fairy-wren



Variegated Fairy-wren



Rufous-crowned Emu-wren

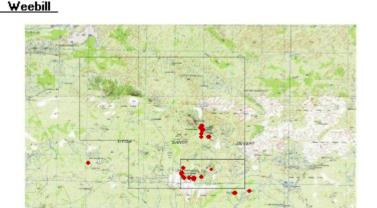


Striated Grasswren

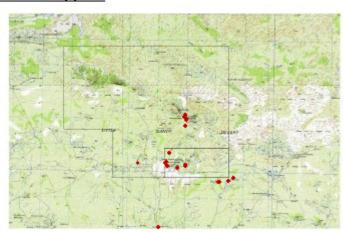


Rufous Fieldwren

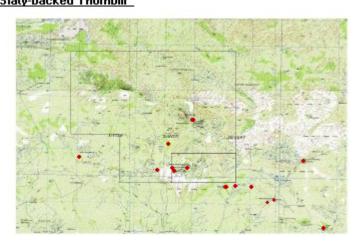




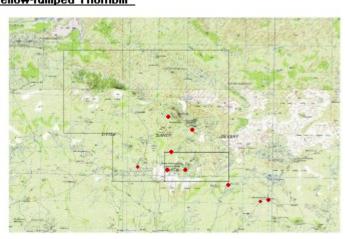
Western Gerygone



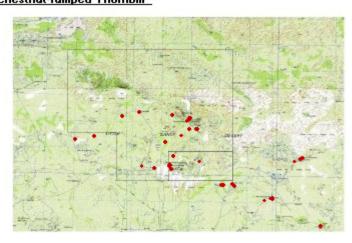
Slaty-backed Thornbill



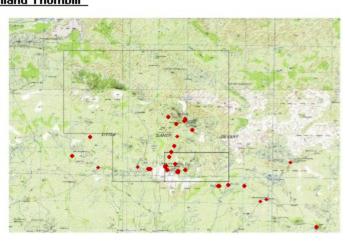
Yellow-rumped Thornbill



Chestnut-rumped Thornbill



Inland Thornbill

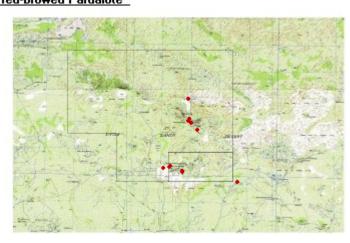


Southern Whiteface

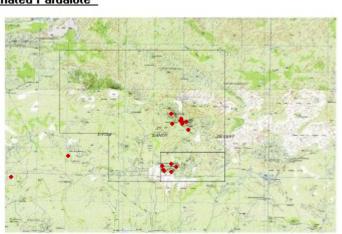
Banded Whiteface



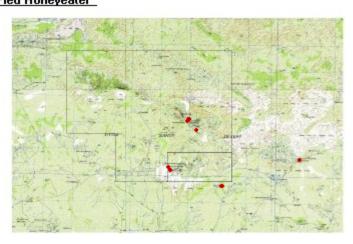
Red-browed Pardalote



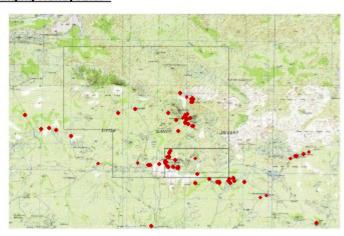
Striated Pardalote



Pied Honeyeater

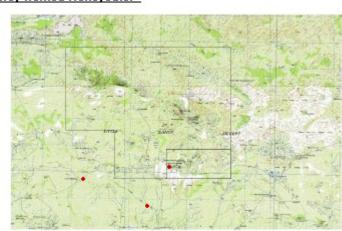


Singing Honeyeater

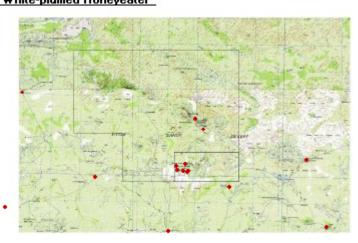


Grey-headed Honeyeater

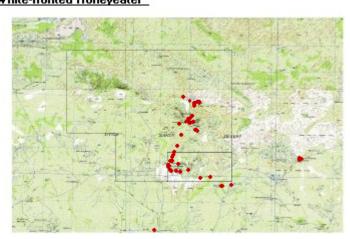
Grey-fronted Honeyeater



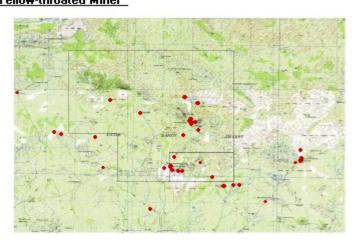
White-plumed Honeyeater



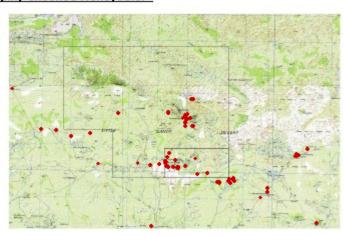
White-fronted Honeyeater



Yellow-throated Miner



Spiny-cheeked Honeyeater

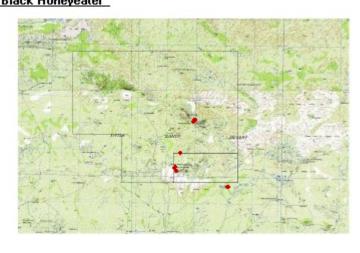


Crimson Chat

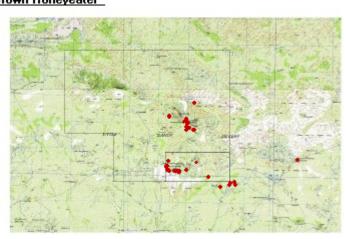
Orange Chat



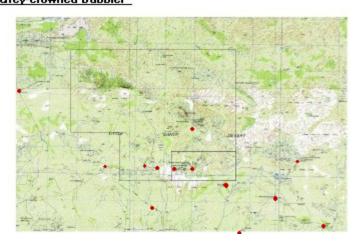
Black Honeyeater



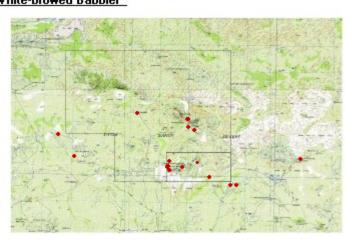
Brown Honeyeater



Grey-crowned Babbler



White-browed Babbler

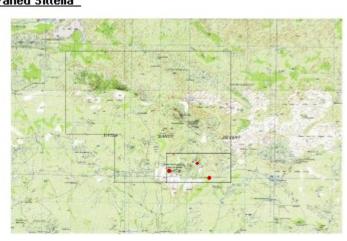


Chestnut-breasted Quail-thrush

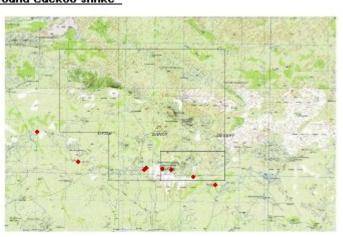
Chiming Wedgebill



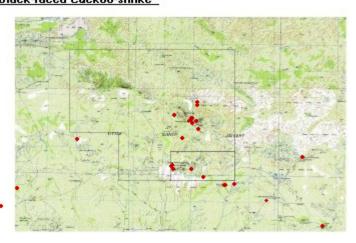
Varied Sittella



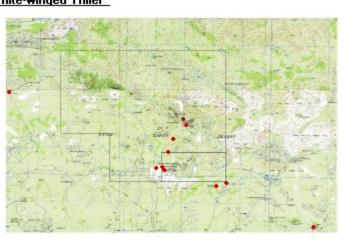
Ground Cuckoo-shrike



Black-faced Cuckoo-shrike

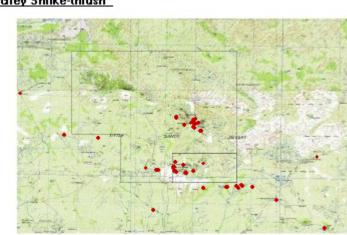


White-winged Triller

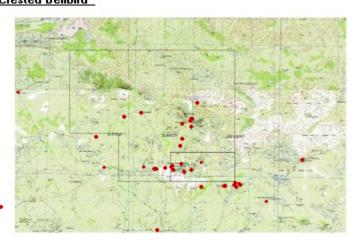


Rufous Whistler

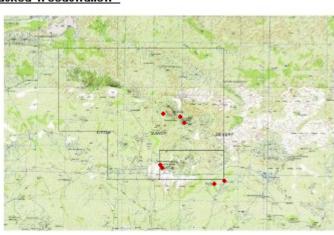
Grey Shrike-thrush



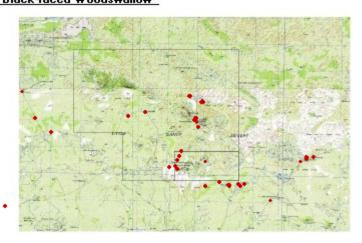
Crested Bellbird



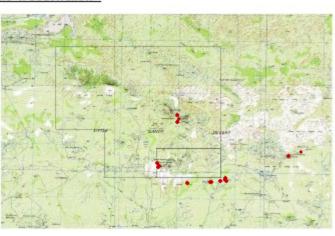
Masked Woodswallow

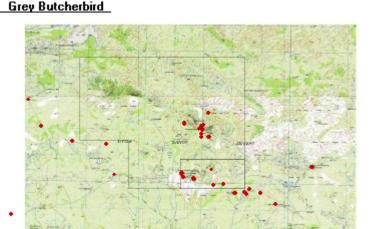


Black-faced Woodswallow

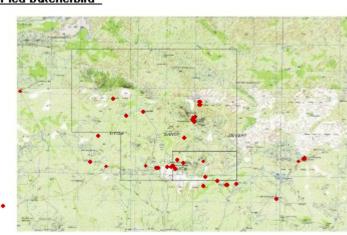


Little Woodswallow

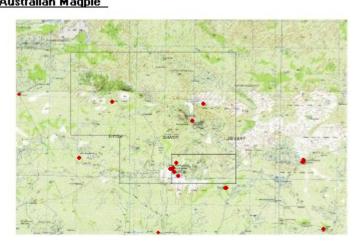




Pied Butcherbird



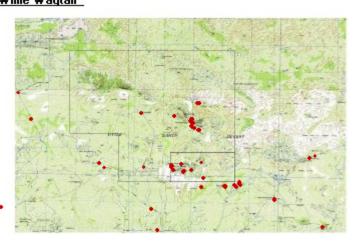
Australian Magpie



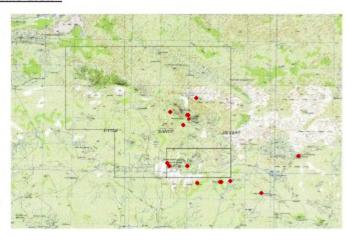
Grey Fantail



Willie Wagtail



Little Crow

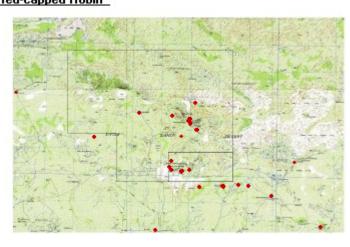


Torresian Crow

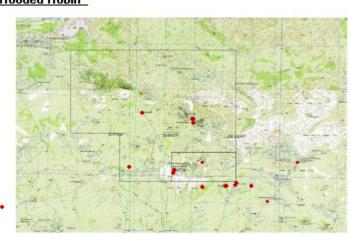
Magpie-lark



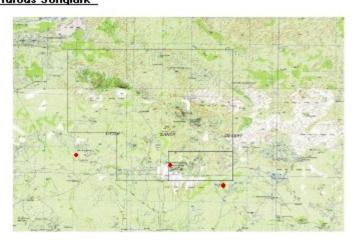
Red-capped Robin



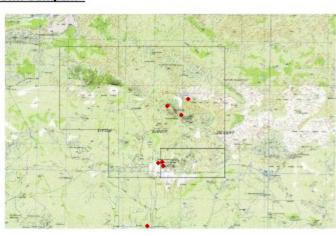
Hooded Robin



Rufous Songlark



Brown Songlark

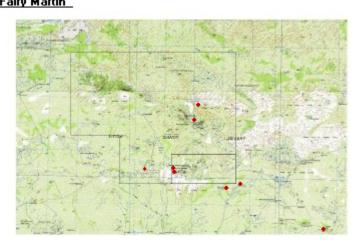


White-backed Swallow

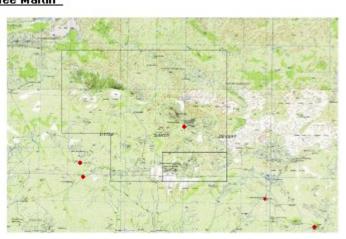
Welcome Swallow



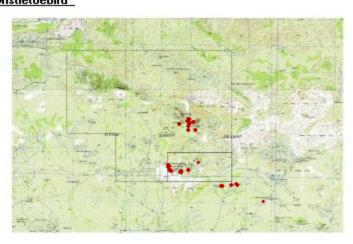
Fairy Martin



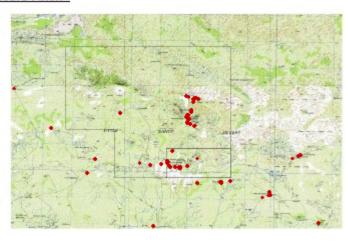
Tree Martin



Mistletoebird



Zebra Finch



Painted Finch

Australasian Pipit



