

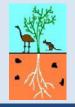






# **Bird Bath Biodiversity Survey 2017**

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# 1. INTRODUCTION

# 1.1. The Land for Wildlife and Garden for Wildlife Programs

Land for Wildlife is a voluntary conservation program that was established in Victoria in 1981, and has since been adopted in all states and territories across Australia. Land for Wildlife central Australia began in 2002 to assist rural landholders with conservation efforts, and the Garden for Wildlife program taking hold in 2017 to engage urban residents. The two programs encourage and facilitate private landholders and groups to maintain and improve native habitat on their properties. The program builds the capacity of members through environmental assessments on properties, newsletters, workshops, expert advice and access to the local conservation network.

Land for Wildlife and Garden for Wildlife members contribute to natural resource management of private land and regional biodiversity conservation by controlling threatening processes like invasive weeds, feral animals, erosion and altered fire regimes.

The native vegetated regions of Alice Springs provide excellent opportunities for private landholders to learn about nature conservation by managing remnant vegetation on their own property. Wildlife hotspots are created or maintained within nature reserves or surrounding natural areas, with adjoining areas allowing for wildlife movement and genetic interchange between populations. Private landholders are encouraged to contribute to the conservation and restoration of remnant native vegetation that the plants and animals depend upon.

As of November 2017, a total of 101 properties are currently registered with Land for Wildlife and 137 are registered with Garden for Wildlife. Several properties registered with the program are located in pastoral and Aboriginal lands beyond the Alice Springs municipal area. Properties under the Land for Wildlife and Garden for Wildlife schemes cover a total land area of 292,504 ha.

## 1.2. Biodiversity Surveys

Land for Wildlife has conducted biodiversity surveys on member properties since 2007. They are an important tool in determining the success of land management activities carried out and to create a better understanding of species population dynamics in areas of mixed land use.

The Land for Wildlife program encourages the involvement of property owners and other volunteers during the surveys. This teaches a valuable set of skills to the participants as well as enhancing knowledge of flora, fauna and their interactions within an ecosystem. Through participation, property owners can learn the skills necessary to monitor plant and animal communities, creating the ability of land owners to assess population dynamics of species into the future.

The information gathered from the surveys adds to the knowledge of species distributions in areas that may otherwise pose access issues to do with land tenure and ownership.

Traditionally, the biodiversity surveys are conducted on Land for Wildlife properties only and involve trapping for a range of wildlife, including reptiles, frogs, mammals and invertebrates, as well as conducting visual transect surveys for birds. In 2017, as part of National Bird Week, Land for Wildlife took the aim of conducting a biodiversity survey targeted only at birds that visit the water baths provided on both rural and urban blocks so that Garden for Wildlife members would have an opportunity to take part in the process. This report details the findings of the 2017 Bird Bath Biodiversity Survey.

# 2. METHODS AND MATERIALS

# 2.1. Survey Conditions

The weather on the day of the Garden for Wildlife camera trapping (25<sup>th</sup> October 2017) was somewhat warm, with temperatures ranging from 21.9 °C to 39.9 °C. There was no rainfall recorded for the 24 hours of monitoring at the Alice Springs Airport weather station (Bureau of Meteorology 2017). Winds were somewhat strong, with a maximum gust of 52 kph NW.

The weather on the day of the Land for Wildlife camera trapping (27<sup>th</sup> October 2017) was somewhat mild in comparison, with temperatures ranging from 14.5 °C to 33.4 °C. There was no rainfall recorded for the 24 hours of monitoring at the Alice Springs Airport weather station (Bureau of Meteorology 2017), though rain was detected falling in several bird baths during the monitoring period. Winds were somewhat strong, with a maximum gust of 48 kph SSE. Consequently, two of the cameras were noted to have blown over during the monitoring period.

# 2.2. Camera Traps

A camera trap is a small camera housed within a pelican case that is responsive to movement. The camera is operated through infra-red sensors that detect movement and initiate recording. Three brands of camera trap were used for the survey, which included Reconyx (4), Bushnell (7) and Faunatech (1). Reconyx cameras were capable of taking still images, and were set to take 10 consecutive images following the detection of movement. Bushnell and Faunatech cameras were capable of taking moving footage, and were set to take 30 seconds of consecutive footage following the detection of movement.

While Reconyx, Bushnell and Faunatech cameras are often called camera traps, they do not in fact capture the animal, but rather record its presence. No bait or lure was used for the camera trapping, other than the bird bath itself.

Camera traps were placed on metal posts raised to bird bath height and sitting in a bucket of wet sand. Cameras were positioned approximately 1 m from each water bath, irrespective of the size of the bath.

Cameras were set to run for a full day for each property, with cameras being installed on the afternoon prior to the full monitoring day and collected on the morning after the monitoring day. All data collected is included in the report, including incidental recordings from the pre- and post-monitoring days. Garden for Wildlife camera trapping took place on Wednesday the 25<sup>th</sup> of October 2017 and the Land for Wildlife camera trapping took place on Friday the 27<sup>th</sup> of October 2017. A total of 12 Garden for Wildlife and seven Land for Wildlife properties took part in the Bird Bath Biodiversity Survey 2017.

## 2.3. Data Analysis

While most of the data are retained in the raw and basic summaries, some comparisons were conducted with Chi-squared tests using the statistical package R (v 3.3.2), conducted in RStudio (v 1.1.383).

# 3. SURVEY RESULTS

#### 3.1. Garden for Wildlife

A total of 12 Garden for Wildlife properties took part in the Bird Bath Biodiversity Survey 2017, including six in Eastside, three in Braitling (Northside), two in Larapinta, and one in Desert Springs. All properties provided shelter, food and water for a variety of bird species due to the presence of native vegetation. All cameras were in use for this portion of the survey. The results for each property are outlined below.

#### 3.1.1. Pamela Bladon and Peter Yates

Pamela and Peter maintain two bird baths; the primary bath of the two was included in the monitoring, located to the east of the premises. Two species of birds were observed visiting the monitored bird bath, as outlined in Table 1. The most common visitor to the bird bath was the Spiny-cheeked Honeyeater (*Acanthagenys rufogularis*), which on occasion visited in pairs and staying for approximately 13 seconds (Table 1, Figure 1). A White-plumed Honeyeater (*Lichenostomus penicillatus*) was observed bathing in the bath on one occasion (Figure 2). No feral species were observed to visit the bird bath. Several honeybees were also observed making visits to the bird bath, as it provides water in warmer times.

Table 1. Avian visitation to the Bladon/Yates bird bath (^ Indicates an introduced species). The list is ranked by the number of visits. Visitation time is represented as the average across all visits for the time spent at the bath per visit.

Common Name	Scientific Nomenclature	Number of visits	Max Number of Individuals in a Visit	Visitation Time (mm:ss)
Spiny-cheeked Honeyeater	Acanthagenys rufogularis	17	2	00:13
White-plumed honeyeater	Lichenostomus penicillatus	3	1	00:08



Figure 1. A Spiny-Cheeked Honeyeater (Acanthagenys rufogularis) observed visiting the Bladon/Yates bird bath.



Figure 2. A White-plumed Honeyeater (*Lichenostomus penicillatus*) observed having a bath at the Bladon/Yates property.

#### 3.1.2. Charlie and Deb Carter

Charlie and Deb maintain several bird baths; of which the primary bath was included in the monitoring, located to the south of the premises by the pool. Four species of birds were observed visiting the monitored bird bath, as outlined in Table 2. The most common visitor to the bird bath was the Magpie-lark (*Grallina cyanoleuca*), which on occasion visited in pairs and staying for approximately 26 seconds (Table 2, Figure 3). The Spotted Turtle-dove (*Streptopelia chinensis*), a gazetted feral species, was also observed to visit the bird bath.

Table 2. Avian visitation to the Carter bird bath (^ Indicates an introduced species). The list is ranked by the number of visits. Visitation time is represented as the average across all visits for the time spent at the bath per visit.

Common Name	Scientific Nomenclature	Number of visits	Max Number of Individuals in a Visit	Visitation Time (mm:ss)
Crow	Corvus sp.	1	1	00:03
Spotted Turtle-dove ^	Streptopelia chinensis	1	1	00:30
Crested Pigeon	Ocyphaps lophotes	32	2	00:20
Magpie-lark	Grallina cyanoleuca	49	2	00:26

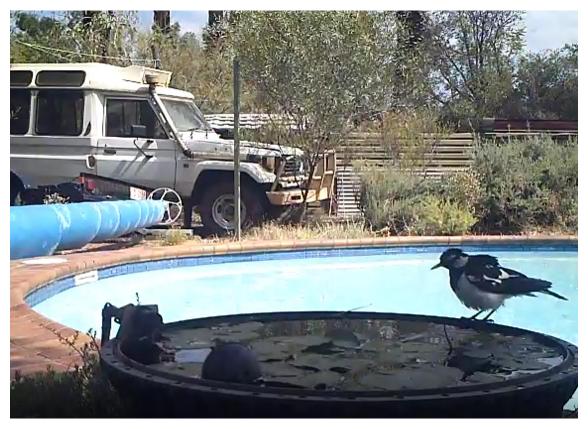


Figure 3. A Magpie-lark (*Grallina cyanoleuca*) was observed visiting the Carter bird bath on several occasions, in this case, also indulging in a bath.

#### 3.1.3. Andrew and Prue Crouch

Andrew and Prue maintain several bird baths; the primary bath was included in the monitoring, located to the south of the premises. Ten species of birds were observed visiting the monitored bird bath, as outlined in Table 3. The most common visitor to the bird bath was the Spiny-cheeked Honeyeater (*Acanthagenys rufogularis*), which on occasion visited in groups of four and staying for approximately 18 seconds (Table 3). Of interest, was a Crow (*Corvus sp.*) dipping food into the water bath for softening or potentially moisture holding to give to young (Figure 4). The Crouch bird bath was also the only bath to have been visited by a Black-faced Cuckoo-shrike (*Coracina novaehollandiae*, Figure 5) and a Galah (*Eolophus roseicapillus*, Figure 6). The Spotted Turtle-dove (*Streptopelia chinensis*), a gazetted feral species, was also observed to visit the bird bath.

Table 3. Avian visitation to the Crouch bird bath (\* Indicates an introduced species). The list is ranked by the number of visits. Visitation time is represented as the average across all visits for the time spent at the bath per visit.

Common Name	Scientific Nomenclature	Number of visits	Max Number of Individuals in a Visit	Visitation Time (mm:ss)
Black-faced Cuckoo-shrike	Coracina novaehollandiae	2	1	00:16
White-plumed honeyeater	Lichenostomus penicillatus	2	1	00:10
Crested Pigeon	Ocyphaps lophotes	2	1	00:06
Western Bowerbird	Ptilonorhynchus guttatus	2	1	00:28
Spotted Turtle-dove ^	Streptopelia chinensis	2	1	00:10
Australian Ringneck	Barnardius zonarius	3	1	00:15
Crow	Corvus sp.	6	1	00:18
Yellow-throated Miner	Manorina flavigula	7	1	00:14
Galah	Eolophus roseicapillus	12	2	00:11
Spiny-cheeked Honeyeater	Acanthagenys rufogularis	36	4	00:18



Figure 4. A Crow sp. (*Corvus sp.*) observed dipping food in the water bath, presumably to soften the material or obtain extra water. This is sometimes seen being done when birds have young in the nest.



Figure 5. A Black-faced Cuckoo-shrike (*Coracina novaehollandiae*) shares the bird bath with a Spiny-cheeked Honeyeater (*Acanthagenys rufogularis*).



Figure 6. A pair of Galahs (Eolophus roseicapillus) sharing a drink.

#### 3.1.4. Barbara and Jim Gilfedder

Barbara and Jim maintain a couple of bird baths; the primary bath of which was included in the monitoring, located to the north of the premises. Two species of birds were observed visiting the monitored bird bath, as outlined in Table 4. Both species visited the bath on two occasions and stayed for approximately 2 to 15 seconds (Table 4). The Spiny-cheeked Honeyeater (*Acanthagenys rufogularis*) drank from the safety of a nearby tree, rather than landing on the bath rim (Figure 7). No feral species were observed visiting the bird bath. In addition, the camera was activated during the night, recording a resident Gecko walking on the side of the bird bath and returning on several occasions throughout the two evenings (Figure 8).

Table 4. Avian visitation to the Gilfedder bird bath. The list is ranked by the number of visits. Visitation time is represented as the average across all visits for the time spent at the bath per visit.

Common Name	Scientific Nomenclature	Number of visits	Max Number of Individuals in a Visit	Visitation Time (mm:ss)
Spiny-cheeked Honeyeater	Acanthagenys rufogularis	2	1	00:02
White-plumed honeyeater	Lichenostomus penicillatus	2	1	00:15



Figure 7. A Spiny-cheeked Honeyeater (Acanthagenys rufogularis) leans down from the nearby tree to have a drink.



Figure 8. A Gecko that calls the Gilfedder bird bath home (seen in the bottom right on the outside surface).

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#### 3.1.5. Graham and Julie Heller

Graham and Julie maintain several bird baths; the primary baths of which was included in the monitoring, located to the west of the premises on the hillside along the fence-line. The bird bath monitored was composed of an inward (property) facing automatic dripper bowl and an outward (hillside) facing automatic dripper bowl. Ten species of birds were observed visiting the monitored bird baths, as outlined in Table 5. The most common visitor to the bird bath was the Spiny-cheeked Honeyeater (Acanthagenys rufogularis) and Brown Honeyeater (Lichmera indistincta), which were recorded for approximately five to six consecutive images (Table 5). The Spotted Turtle-dove (Streptopelia chinensis), a gazetted feral species, was also observed to visit the bird bath. An interesting visitor was a hawk in the Accipiter genus, either a Collared Sparrowhawk (Accipiter cirrocephalus) or a Brown Goshawk (Ocyphaps lophotes). The bird in question visited the outer bird bath and then returned to the inner bird bath two hours later in the presence of a Kangaroo (Figure 9). The two species are often confused and may be misidentified in many cases. The poor resolution of the camera and quick visit by the bird means that there are few identifying features with which to make a positive identification. The Heller bird bath was also the only one to record a Grey Shrike-thrush (Colluricincla harmonica, Figure 10). The camera recorded Kangaroos (Macropus sp.) visiting the outer water bath on several occasions (including one with a joey, Figure 11), during the day as well as the night. A Cat (Felis catus, Figure 12) and a Dingo (Canis familiaris spp lupis, Figure 13) were also captured by the camera outside the fence-line.

Table 5. Avian visitation to the Heller bird bath (^ Indicates an introduced species). The list is ranked by the number of visits. Visitation time is represented as the average across all visits for the number of images captured consecutively per visit.

Common Name	Scientific Nomenclature	Number of visits	Max Number of Individuals Per Visit	Visitation Time	
Grey Shrike-thrush	Colluricincla harmonica	1	1	10	
Crow	Corvus sp.	1	1	10	
Hawk	Accipiter sp.	2	1	41	
Singing Honeyeater	Lichenostomus virescens	2	2	8	
Crested Pigeon	Ocyphaps lophotes	2	3	20	
Western Bowerbird	Ptilonorhynchus guttatus	2	1	16	
White-plumed honeyeater	Lichenostomus penicillatus	3	1	8	
Spotted Turtle-dove ^	Streptopelia chinensis	4	2	13	
Spiny-cheeked Honeyeater	Acanthagenys rufogularis	6	2	6	
Brown Honeyeater	Lichmera indistincta	6	1	5	



Figure 9. A Hawk (*Accipiter sp.*) and a Kangaroo (*Macropus sp.*) drink from opposite sides of the fence.



Figure 10. A Grey Shrike-thrush (*Colluricincla harmonica*) observed at the Heller bird bath, along with a Spiny-cheeked Honeyeater (*Acanthagenys rufogularis*).



Figure 11. A Kangaroo and joey visiting the outer bird bath during the monitoring period.

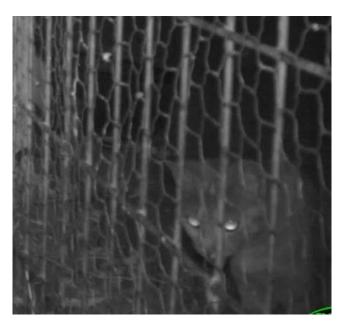


Figure 12. A Cat (*Felis catus*) inspects the fence and camera.



Figure 13. A Dingo (*Canis familiaris spp lupis*) inspects has a drink of water from the outer water bath.

# 3.1.6. Doug McDougall and Jordan Braver

Doug and Jordan maintain one bird bath, located to the north of the premises on the verandah. No birds were observed visiting the monitored bird bath, though the camera recorded the feet of an unknown species on the railing nearby for a single image (Figure 14). The bird bath was positioned with a pot plant nearby, which was observed falling into the bird bath at approximately 10:00 am on the day of the monitoring and was repaired at approximately 2:00 pm. While the bird bath still contained shallow water during the incident, no birds were observed to pay it a visit. Observational surveys may show more birds visiting the area, as its proximity to natural vegetation makes it an ideal location for bird observation. Doug has noted that several wrens (*Malurus sp.*) are regular visitors to the bird bath.



Figure 14. Small feet recorded on the camera trap as the only known visitation to the McDougall/Braver bird bath during the monitoring period (top left).

#### 3.1.7. Jennifer Noble

Jennifer maintains two bird baths; the primary bath of the two was included in the monitoring, located to the side of the premises. Three species of birds were observed visiting the monitored bird bath, as outlined in Table 6. The most common visitor to the bird bath was the Spiny-cheeked Honeyeater (*Acanthagenys rufogularis*) and White-plumed Honeyeater (*Lichenostomus penicillatus*), which on occasion visited in pairs and staying for approximately 30 consecutive images Table 6. The Spotted Turtle-dove (*Streptopelia chinensis*), a gazetted feral species, was also observed to visit the bird bath (Figure 15).

Table 6. Avian visitation to the Noble bird bath (^ Indicates an introduced species). The list is ranked by the number of visits. Visitation time is represented as the average across all visits for the number of images captured consecutively per visit.

Common Name	Scientific Nomenclature	Number of visits	Max Number of Individuals in a Visit	Visitation Time
Spotted Turtle-dove ^	Streptopelia chinensis	1	1	11
Spiny-cheeked Honeyeater	Acanthagenys rufogularis	2	2	30
White-plumed honeyeater	Lichenostomus penicillatus	2	1	3



Figure 15. A Spotted Turtle-dove (Streptopelia chinensis) visits the Noble bird bath.

# 3.1.8. Kirsty Robertson

Kirsty maintains a bird bath in the form of a medium-sized pool that was converted to a natural pond, located to the south of the premises. Despite the large size of the natural pond, no birds were observed visiting by the camera trap. Several species were observed during the delivery of the camera trap, including a Magpie-lark (*Grallina cyanoleuca*) and Rainbow Bee-eaters (*Merops ornatus*). Kirsty also reported that several Redbacked Kingfishers (*Todiramphus pyrrhopygius*) visit the pond on a regular basis, diving in from a height. The camera trap at the Robertson property was left in place for an additional two days, however it was not able to capture any bird visits.

The lack of recorded findings is unusual, as the natural pool with vegetation placed around the outside is clearly a hit with the birdlife of the region. The large size of the pool may have resulted in difficulty to detect birds entering from edges away from the camera location. The deep sides may also dissuade some smaller species from entering the water, and rather favour species that can plunge from a height and exit immediately, the speed of which may be too abrupt to trigger the sensor. Further monitoring and observational surveys may help to highlight the visitation of the bird bath by avian species.

# 3.1.9. Ian Sweeney

lan maintains one bird bath, located to the west of the premises. Seven species of birds were observed visiting the monitored bird bath, as outlined in Table 7. The most common visitor to the bird bath was the Magpie-lark (*Grallina cyanoleuca*), which on occasion visited in pairs and staying for approximately 25 seconds (Table 7, Figure 16). There was a clear domination of the bird bath by this species, with several other smaller species being aggressively removed from the area by the Magpie-lark, while some larger species were tolerated. Several other species seemed to be happy to share the bath, including a Crested Pigeon (*Ocyphaps lophotes*) and a Peaceful Dove (*Geopelia placida*, Figure 17). The Spotted Turtle-dove (*Streptopelia chinensis*), a gazetted feral species, was also observed to visit the bird bath. A Butterfly was also observed visiting the bird bath area, presumably feeding on the nearby Wild Passionfruit (*Capparis spinosa var. nummularia*).

Table 7. Avian visitation to the Sweeney bird bath (^ Indicates an introduced species). The list is ranked by the number of visits. Visitation time is represented as the average across all visits for the time spent at the bath per visit.

Common Name	Scientific Nomenclature	Number of visits	Max Number of Individuals in a Visit	Visitation Time (mm:ss)
Peaceful Dove	Geopelia placida	2	1	00:21
Western Bowerbird	Ptilonorhynchus guttatus	5	1	00:14
Crested Pigeon	Ocyphaps lophotes	8	2	00:16
Spotted Turtle-dove ^	Streptopelia chinensis	10	1	00:20
White-plumed honeyeater	Lichenostomus penicillatus	12	1	00:10
Spiny-cheeked Honeyeater	Acanthagenys rufogularis	28	3	00:12
Magpie-lark	Grallina cyanoleuca	36	2	00:25



Figure 16. A Magpie-lark (Grallina cyanoleuca) pair is swooped by a Spiny-cheeked Honeyeater.



Figure 17. A Peaceful Dove (*Geopelia placida*) shares the space with a Crested Pigeon (*Ocyphaps lophotes*).



Figure 18. A Western Bowerbird (*Ptilonorhynchus guttatus*) aggressively defends the bird bath from a Spotted Turtle-dove (*Streptopelia chinensis*) and a Spiny-cheeked Honeyeater (*Acanthagenys rufogularis*).

#### 3.1.10. Madonna Tomes and Victoria Leontios

Madonna and Victoria maintain one bird bath, located to the south of the premises. Five species of birds were observed visiting the monitored bird bath, as outlined in Table 8. The most common visitor to the bird bath was the White-plumed Honeyeater (*Lichenostomus penicillatus*), which on occasion visited in pairs and stayed for approximately 15 seconds (Table 8, Figure 19). A Western Bowerbird (*Ptilonorhynchus guttatus*) was the larger of the visitors (Figure 20). The Spotted Turtle-dove (*Streptopelia chinensis*), a gazetted feral species, was also observed to visit the bird bath on a common basis.

Table 8. Avian visitation to the Tomes/Leontios bird bath (^ Indicates an introduced species). The list is ranked by the number of visits. Visitation time is represented as the average across all visits for the time spent at the bath per visit.

Common Name	Scientific Nomenclature	Number of visits	Max Number of Individuals in a Visit	Visitation Time (mm:ss)
Western Bowerbird	Ptilonorhynchus guttatus	1	1	00:30
Brown Honeyeater	Lichmera indistincta	2	1	00:09
Yellow-throated Miner	Manorina flavigula	2	1	00:30
Spotted Turtle-dove ^	Streptopelia chinensis	3	1	00:23
White-plumed honeyeater	Lichenostomus penicillatus	3	2	00:15

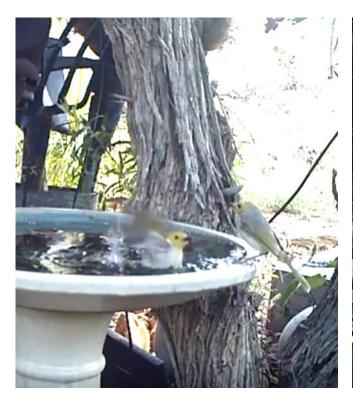






Figure 20. A Western Bowerbird (*Ptilonorhynchus guttatus*) takes a long drink from the Tomes and Leontios bird bath.

#### 3.1.11. Heather and Mark Wilson

Heather and Mark maintain one bird bath, located to the north of the premises. Two species of birds were observed visiting the monitored bird bath, as outlined in Table 9. The most common visitor to the bird bath was the Yellow-throated Miner (*Manorina flavigula*), which on occasion visited in triplets and was captured for an average of 23 consecutive images (Table 9, Figure 21). No feral species were observed visiting the bird bath.

Table 9. Avian visitation to the Wilson bird bath. The list is ranked by the number of visits. Visitation time is represented as the average across all visits for the number of images captured consecutively per visit.

Common Name	Scientific Nomenclature	Number of visits	Max Number of Individuals in a Visit	Visitation Time
Crested Pigeon	Ocyphaps lophotes	2	1	21
Yellow-throated Miner	Manorina flavigula	18	3	23



Figure 21. Yellow-throated Miners (Manorina flavigula) are regular visitors to the Wilson bird bath.

# 3.1.12. Neil and Leigh Woolcock

Neil and Leigh maintain more than five bird baths; one of which was included in the monitoring, located to the north-east of the premises by the pool. Three species of birds were observed visiting the monitored bird bath, as outlined in Table 10. Each species visited only once and stayed for up to 30 seconds Table 10. A Singing Honeyeater (*Lichenostomus virescens*) visited briefly for a drink (Figure 22). No feral species were observed visiting the bird bath. In addition to the birds, several large wasps were observed visiting the bird bath.

Table 10. Avian visitation to the Woolcock bird bath. The list is ranked by the number of visits. Visitation time is represented as the average across all visits for the time spent at the bath per visit.

Common Name	Scientific Nomenclature	Number of visits	Max Number of Individuals in a Visit	Visitation Time (mm:ss)
Spiny-cheeked Honeyeater	Acanthagenys rufogularis	1	1	00:04
Singing Honeyeater	Lichenostomus virescens	1	1	00:19
Brown Honeyeater	Lichmera indistincta	1	1	00:30



Figure 22. A Singing Honeyeater (*Lichenostomus virescens*) stops by for a quick drink at the Woolcock bird bath.

#### 3.2. Land for Wildlife

A total of seven Land for Wildlife properties took part in the Bird Bath Biodiversity Survey 2017, including three at Ross, three at Ilparpa and one at Connellan. The results for each property are outlined below.

#### 3.2.1. Jane Brittain

Jane maintains two bird baths; the primary bath of the two was included in the monitoring, located to the west of the premises. Two species of birds were observed visiting the monitored bird bath, as outlined in Table 11. The most common visitor to the bird bath was the White-plumed Honeyeater (*Lichenostomus penicillatus*), which visited in pairs and stayed for approximately 13 seconds but wasn't able to drink due to the presence of one of two pet dogs that also drink from the bath (Table 11, Figure 23). No feral species were observed visiting the bird bath.

Table 11. Avian visitation to the Brittain bird bath (\* Indicates an introduced species). The list is ranked by the number of visits. Visitation time is represented as the average across all visits for the time spent at the bath per visit.

Common Name	Scientific Nomenclature	Number of visits	Max Number of Individuals in a Visit	Visitation Time
Crested Pigeon	Ocyphaps lophotes	1	1	00:30
White-plumed honeyeater	Lichenostomus penicillatus	1	2	00:13



Figure 23. A White-plumed Honeyeater (*Lichenostomus penicillatus*) comes in for a drink at the Brittain bird bath (rear railing) but is beaten to the punch by the pet dog (*Canis familiaris*).

#### 3.2.2. Meredith and John Joseland

Meredith and John maintain two bird baths; the primary bath of the two (a ground level pond) was included in the monitoring, located to the north of the premises. Four species of birds were observed visiting the monitored bird bath, as outlined in Table 12. The most common visitor to the bird bath was the Crested Pigeon (*Ocyphaps lophotes*), which on occasion visited in triplets and stayed for approximately 11 seconds (Table 12, Figure 24). In addition, the bird bath was visited by a Diamond Dove (*Geopelia cuneata*, Figure 25) and a Peaceful Dove (*Geopelia placida*, Figure 26). No feral species were observed visiting the bird bath. Lots of ants were seen around the ground level pond, which seemed to disturb some individuals visiting the bath.

The camera trap located on the Joseland property was subjected to strong winds and subsequently fell over during the monitoring period. While the camera was partially facing the pond for the remainder of the monitoring, a large section of the pond was no longer visible and thus full visitation records were not available.

Table 12. Avian visitation to the Joseland bird bath (^ Indicates an introduced species). The list is ranked by the number of visits. Visitation time is represented as the average across all visits for the time spent at the bath per visit.

Common Name	Scientific Nomenclature	Number of visits	Max Number of Individuals in a Visit	Visitation Time
Peaceful Dove	Geopelia placida	1	1	00:02
Diamond Dove	Geopelia cuneata	2	1	00:21
Yellow-throated Miner	Manorina flavigula	4	1	00:25
Crested Pigeon	Ocyphaps lophotes	25	3	00:11



Figure 24. Crested Pigeons (Ocyphaps lophotes) are common visitors to the Joseland bird bath.



Figure 25. A Diamond Dove (Geopelia cuneata) cautiously visits the Joseland bird bath.



Figure 26. A Peaceful Dove (*Geopelia placida*) visits the Joseland bird bath for a few seconds but does not stay for a drink.

# 3.2.3. Geoff and Jenny Kenna

Geoff and Jenny maintain several bird baths; the primary bath of the two was included in the monitoring, located to the south-east of the premises. Eleven species of birds were observed visiting the monitored bird bath, as outlined in Table 13. The most common visitor to the bird bath was the Brown Honeyeater (*Lichmera indistincta*), which on occasion visited in groups and stayed for approximately 23 seconds (Table 13, Figure 27). Some interesting species not seen at other bird baths in this survey include a Grey-headed Honeyeater (*Lichenostomus keartlandi*, Figure 27), an Australian Ringneck (*Barnardius zonarius*, Figure 28), a Variegated Fairy-wren (*Malurus lamberti*, Figure 29) and a Willie Wagtail (*Rhipidura leucophrys*, Figure 30). No feral species were observed visiting the bird bath.

It is of interest to note that the Kenna bird bath camera trap was triggered the earliest in the day, with several video recordings in the dark of a Willie Wagtail, White-plumed Honeyeater (*Lichenostomus penicillatus*), Spiny-cheeked Honeyeater (*Acanthagenys rufogularis*) and another small bird which may have been a Brown Honeyeater. Dur to the dark footage, identification of these visitations is uncertain, however each bird acted in a manner that is somewhat distinctive of each species.

Table 13. Avian visitation to the Kenna bird bath (^ Indicates an introduced species). The list is ranked by the number of visits. Visitation time is represented as the average across all visits for the time spent at the bath per visit.

Common Name	Scientific Nomenclature	Number of visits	Max Number of Individuals in a Visit	Visitation Time
Australian Ringneck	Barnardius zonarius	1	1	00:03
Peaceful Dove	Geopelia placida	1	1	00:18
Grey-headed Honeyeater	Lichenostomus keartlandi	1	1	00:15
Variegated Fairy-wren	Malurus lamberti	1	1	00:13
Willie Wagtail	Rhipidura leucophrys	3	1	00:16
Singing Honeyeater	Lichenostomus virescens	6	1	00:20
Zebra Finch	Taeniopygia guttata	12	12	00:18
Spiny-cheeked Honeyeater	Acanthagenys rufogularis	18	1	00:18
Crested Pigeon	Ocyphaps lophotes	34	3	00:18
White-plumed honeyeater	Lichenostomus penicillatus	36	3	00:16
Brown Honeyeater	Lichmera indistincta	58	4	00:23



Figure 27. Left to Right: A White-plumed Honeyeater (*Lichenostomus penicillatus*), two Brown Honeyeaters (*Lichmera indistincta*) and a Grey-headed Honeyeater (*Lichenostomus keartlandi*) share the Kenna bird bath with minimal bickering.

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Figure 28. An Australian Ringneck (Barnardius zonarius) visits the Kenna bird bath.



Figure 29. A Variegated Fairy-wren (Malurus lamberti) drops by the Kenna bird bath for a drink.



Figure 30. A Willie Wagtail (*Rhipidura leucophrys*) visits the bird bath early in the morning and returns in the late afternoon.

#### 3.2.4. Bill Low

Bill maintains four bird baths; the primary bath of which was included in the monitoring, located to the west of the premises. Five species of birds were observed visiting the monitored bird bath, as outlined in Table 14. The most common visitor to the bird bath was the Singing Honeyeater (*Lichenostomus virescens*), which stayed for approximately 7 consecutive images (Table 14, Figure 31). A Mulga Parrot (*Psephotus varius*) was observed visiting the area, but did not stay for a drink, and was not observed at any of the other bird baths in this survey (Figure 32). No feral species were observed visiting the bird bath.

The minimal number of species recorded at the bird bath is unusual, as several other species are known to visit on a regular occasion, including Variegated Fairy-wrens (*Malurus lamberti*), Splendid Fairy Wrens (*Malurus splendens*), Brown Honeyeaters (*Lichmera indistincta*), Zebra Finches (*Taeniopygia guttata*), Collared Sparrowhawk (*Accipiter cirrocephalus*), Grey-crowned Babblers (*Pomatostomus temporalis*), and Australian Ringnecks (*Barnardius zonarius*), among others.

Table 14. Avian visitation to the Low bird bath (^ Indicates an introduced species). The list is ranked by the number of visits. Visitation time is represented as the average across all visits for the number of images captured consecutively per visit.

Common Name	Scientific Nomenclature	Number of visits	Max Number of Individuals in a Visit	Visitation Time	
Spiny-cheeked Honeyeater	Acanthagenys rufogularis	1	2	10	
Yellow-throated Miner	Manorina flavigula	1	1	10	
Crested Pigeon	Ocyphaps lophotes	1	1	10	
Mulga Parrot	Psephotus varius	1	1	10	
Singing Honeyeater	Lichenostomus virescens	2	1	7	



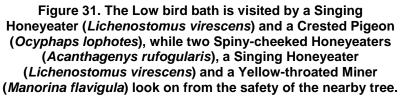




Figure 32. A Mulga Parrot
(Psephotus varius) can be seen
approaching the bird bath
(camouflaged in the middle left of
the image), but does not pay a visit
to the bird bath on this occasion.

# 3.2.5. Jim and Lorraine Sligar

Jim and Lorraine maintain one bird bath, located to the north of the premises. Three species of birds were observed visiting the monitored bird bath, as outlined in Table 15. The most common visitor to the bird bath was the Crested Pigeon (*Ocyphaps lophotes*), staying for approximately 12 seconds (Table 15). No feral species were observed visiting the bird bath.

It was noted that the bird bath was connected to an automatic irrigation dripper on a micro-line, the dripper of which was positioned to the bottom of the bird bath. This positioning seemed to result in the fill and automatic but slow emptying of the bath via syphoning back down the line. The low water level may dissuade some avian visitors from returning, as it doesn't provide a high level and reliable water source. We recommend that Jim and Lorraine raise the level of the dripper to the lip of the bath to prevent the siphoning of the water following refill.

Table 15. Avian visitation to the Sligar bird bath (^ Indicates an introduced species). The list is ranked by the number of visits. Visitation time is represented as the average across all visits for the time spent at the bath per visit.

Common Name	Scientific Nomenclature	Number of visits	Max Number of Individuals in a Visit	Visitation Time
White-plumed honeyeater	Lichenostomus penicillatus	1	1	00:05
Yellow-throated Miner	Manorina flavigula	1	1	00:05
Crested Pigeon	Ocyphaps lophotes	3	1	00:12



Figure 33. The Crested Pigeon (*Ocyphaps lophotes*) was the most common visitor to the Sligar bird bath.

# 3.2.6. Janine (J9) Stanton

Janine maintains multiple and varied bird baths; one of which was included in the monitoring, located to the south of the premises. No birds were observed visiting the monitored bird bath. The large quantity and varied watering points mean that the birds in the region are spoiled for choice and may have been dissuaded from visiting the monitored bird bath as a result of the presence of the camera trap. Further observational surveys may highlight the diversity of species visiting the property, as Janine anecdotally reports several species to call her property home.

#### 3.2.7. David and Sue Woods

David and Sue maintain several bird baths; one of which was included in the monitoring, located to the east of the premises near a cottage. No birds were observed visiting the monitored bird bath. The monitoring period included some heavy winds, which may have dissuaded some smaller species from visiting the bird bath. In addition, the camera fell over during the monitoring period for an unknown period of time. The positioning was rectified by the property owner and the camera was left in place for an additional couple of days. There was a significant amount of rain the evening of the monitoring period (reported by the owner and observed personally in the nearby area; however it was not picked up at the Alice Springs airport weather station. The presence of rain may have reduced the need for birds to visit the bird bath in the following days.

### 4. SUMMARY

# 4.1. Trends and Findings

The Bird Bath Biodiversity Survey 2017 was an interesting exercise, highlighting the diversity of avian species that visit artificial or semi-natural water sources provided on urban, peri-urban and rural properties. A total of 566 visits to bird baths were recorded over the monitoring period (Table 16). Overall, 22 species were observed in the camera traps, of which 16 were observed visiting Garden for Wildlife bird baths and 14 were observed visiting Land for Wildlife bird baths (Table 16).

The most common visitor to bird baths was the White-plumed Honeyeater and the Crested Pigeon, recorded at 10 properties each, whereas the Spiny-cheeked Honeyeater was the most persistent visitor to bird baths, visiting 111 times across all properties (Table 16).

The Spotted Turtle-dove, an introduced species, was ranked 5<sup>th</sup> most common visitor at bird baths (Table 16), recorded at six of the Garden for Wildlife properties monitored.

Table 16. Avian species visiting Land for Wildlife and Garden for Wildlife bird baths (^ Indicates an introduced species). Number of properties visited by species is recorded as all properties (Garden for Wildlife properties, Land for Wildlife properties). The list is ranked according to the number of properties visited. Highlighted cells indicate the greatest abundance for each category.

Common Name	Scientific Nomenclature	Total Number of Visits to Bird Baths Across All Properties			
Grey Shrike-thrush	Colluricincla harmonica	1 (1,0)	1		
Grey-headed Honeyeater	Lichenostomus keartlandi	1 (0,1)	1		
Variegated Fairy-wren	Malurus lamberti	1 (0,1)	1		
Mulga Parrot	Psephotus varius	1 (0,1)	1		
Hawk	Accipiter sp.	1 (1,0)	2		
Black-faced Cuckoo-shrike	Coracina novaehollandiae	1 (1,0)	2		
Diamond Dove	Geopelia cuneata	1 (0,1)	2		
Willie Wagtail	Rhipidura leucophrys	1 (0,1)	3		
Galah	Eolophus roseicapillus	1 (1,0)	12		
Zebra Finch	Taeniopygia guttata	1 (0,1)	12		
Australian Ringneck	Barnardius zonarius	2 (1,1)	4		
Magpie-lark	Grallina cyanoleuca	2 (2,0)	85		
Peaceful Dove	Geopelia placida	3 (1,2)	4		
Crow	Corvus sp.	3 (3,0)	8		
Western Bowerbird	Ptilonorhynchus guttatus	4 (4,0)	10		
Singing Honeyeater	Lichenostomus virescens	4 (2,2)	11		
Brown Honeyeater	Lichmera indistincta	4 (3,1)	67		
Spotted Turtle-dove ^	Streptopelia chinensis	6 (6,0)	22		
Yellow-throated Miner	Manorina flavigula	6 (3,3)	33		
Spiny-cheeked Honeyeater	Acanthagenys rufogularis	9 (7,2)	111		
White-plumed honeyeater	Lichenostomus penicillatus	10 (7,3)	64		
Crested Pigeon	Ocyphaps lophotes	10 (5,5)	110		
	Total Species Count				
	Total Visits to Bird Baths	56	66		

Several species were observed on only one property, which included four visiting Garden for Wildlife properties and six visiting Land for Wildlife properties (Table 17). Of the species that visited several bird baths, the Western Bowerbird and the Spotted Turtle-dove were the only ones to visit Garden for Wildlife bird baths only (Table 17). While the Western Bowerbird is known to visit rural bird baths, it wasn't observed in this case. On the other hand, Spotted Turtle-doves are rarely seen south of Heavitree Gap and therefore their presence at the Land for Wildlife bird baths is not expected.

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Table 17. Avian species presence at Land for Wildlife and Garden for Wildlife bird baths (^ Indicates an introduced species). The list is ranked according to the total number of properties visited. Blue highlighted cells indicate the species and properties that were mutually exclusive.

	Garden for Wildlife					I	_and	for W	ildlife	•					
Common Name	Bladon/ Yates	Carter	Crouch	Gilfedder	Heller	Noble	Sweeney	Tomes/ Leontios	Wilson	Woolcock	Brittain	Joseland	Kenna	Low	Sligar
Grey Shrike-thrush					$\checkmark$										
Grey-headed Honeyeater													$\sqrt{}$		
Variegated Fairy-wren													$\sqrt{}$		
Mulga Parrot														$\sqrt{}$	
Hawk					$\sqrt{}$										
Black-faced Cuckoo-shrike															
Diamond Dove												$\checkmark$			
Willie Wagtail													$\sqrt{}$		
Galah															
Zebra Finch													$\sqrt{}$		
Australian Ringneck													$\sqrt{}$		
Magpie-lark		$\sqrt{}$					$\checkmark$								
Peaceful Dove													$\sqrt{}$		
Crow		$\sqrt{}$													
Western Bowerbird			<b>√</b>		$\checkmark$		<b>√</b>	$\sqrt{}$							
Singing Honeyeater					$\checkmark$					<b>√</b>			$\checkmark$	$\checkmark$	
Brown Honeyeater					$\sqrt{}$								$\sqrt{}$		
Spotted Turtle-dove ^		$\sqrt{}$	V		$\checkmark$										
Yellow-throated Miner												$\checkmark$		$\sqrt{}$	$\sqrt{}$
Spiny-cheeked Honeyeater	$\sqrt{}$		V	V	$\checkmark$								$\sqrt{}$	$\sqrt{}$	
White-plumed honeyeater	V		V	V	√	<b>√</b>	<b>√</b>	V			<b>√</b>		<b>√</b>		V
Crested Pigeon		$\sqrt{}$											$\sqrt{}$	$\sqrt{}$	$\sqrt{}$

Garden for Wildlife properties recorded 10 species on a single property (Table 18), with the Crouch and Heller properties coming out on top. The Land for Wildlife properties recorded 11 species on a single property (Table 18), with the Kenna property taking the lead.

While it is sometimes expected that there would be fewer species observed in urban areas, this was shown not to be the case in this survey ( $X^2$ =0.14, df=1, P=0.71).

The Sweeney property received the most visits by birds to Garden for Wildlife properties, totalling 101 visits, irrespective of species (Table 18). The Kenna property took the prize for most visits to Land for Wildlife properties, totalling 171 visits (Table 18).

Table 18. Avian abundance at Garden for Wildlife bird baths. The list is ranked according to the number of avian species recorded in each program. Highlighted cells indicate the greatest abundance for each category.

	Property	Number of Avian Species Recorded	Total Number of Visits
	Doug McDougall and Jordan Braver	0	0
	Kirsty Robertson	0	0
Φ	Barbara and Jim Gilfedder	2	4
di≓	Heather and Mark Wilson	2	20
Αij	Pamela Bladon and Peter Yates	2	20
)	Jennifer Noble	3	5
Sarden for Wildlife	Neil and Leigh Woolcock	3	3
der	Charlie and Deb Carter	4	83
jar	Madonna Tomes and Victoria Leontios	5	11
0	lan Sweeney	7	101
	Andrew and Prue Crouch	10	74
	Graham and Julie Heller	10	29
	Janine (J9) Stanton	0	0
_	David and Sue Woods	0	0
Ę. Ę	Jane Brittain	2	2
Land for Wildlife	Jim and Lorraine Sligar	3	5
La Wil	Meredith and John Joseland	4	32
	Bill Low	5	6
	Geoff and Jenny Kenna	11	171

# 4.2. Bird Biodiversity in Your Garden

The Bird Bath Biodiversity Survey 2017 showed that there is a range of species that visited bird baths around the Alice Springs area within a one-day monitoring period. However there are over 200 species that can be found in and around Alice Springs. A comprehensive list of birds likely to be observed in the region is given in Table 1 of the Land for Wildlife Fauna List (<a href="http://wildlife.lowecol.com.au/about/fact-sheets/faunalistcombo/">http://wildlife.lowecol.com.au/about/fact-sheets/faunalistcombo/</a>) or see Table 19 in Appendix 7.2.

The Spotted Turtle-dove is an introduced species and was observed at six of the 12 Garden for Wildlife properties that took part in the Bird Bath Biodiversity Survey. Feral Spotted Turtle-doves first became established in Alice Springs in the early 1990s when approximately 10 birds were liberated from a backyard aviary and the population has steadily grown since then. Spotted Turtle-doves are domesticated birds that are highly suited to life in urban areas. They are able to breed all year round and compete with native species for shelter and nesting sites. Spotted Turtle-doves will eat a wide variety of items including seeds, pet food and household scraps. Native birds in Alice Springs now have to compete with this highly adapted and aggressive species for food. As a result of their feeding habits, feral doves can be a nuisance around aviaries, fowl yards and pet feeding areas, where they scrounge for scraps and other food items. High concentrations of droppings deposited around these sites not only increase cleaning chores, but may pose a health hazard. To help reduce the populations of this feral species, keep dense plants well-trimmed and maintained, inspect your property regularly for nesting activity, and destroy their nests before breeding commences. You can also prevent access by feral birds to pet food, covering chicken pens to prevent access to Spotted Turtle-doves. Garden for Wildlife members can loan traps for free to help actively manage feral bird populations, as well as receiving instructions on how to make your own. Head to our website to see more information on feral dove control (http://wildlife.lowecol.com.au/about/projects/feral-animal-trap-loans/feral-dove-trapping/).

Several bird baths recorded fewer species than reported by the property owners to be resident in the area and there are several reasons why this may be the case. The inclement weather (rain, wind) during the Land for

Wildlife monitoring period may have caused some species to take shelter and avoid visiting exposed bird baths. Increasing the amount of vegetation around a bird bath can help to provide protection for birds. The heavy rain on the evening before the Land for Wildlife monitoring round may have caused pooling of water on roadsides and other areas, reducing the need for birds to visit artificial water sources. Two of the cameras fell over during the monitoring period, with one being returned to its position sometime after. This may have reduced the number of recorded birds, with some being missed due to camera inactivity. One of the Garden for Wildlife bird baths, a shallow dish, had a pot plant fall over in it for a period of the monitoring, which may have dissuaded birds from visiting. One of the Garden for Wildlife bird baths, a large pond, may have been less successful due to its large size and limited motion detector distance of the camera. There is no doubt that a longer monitoring period at another time of year would show up some additional species that were not detected in this particular survey.

If you feel that you could be attracting more birds to your garden, you could try some of the following hints and tips:

Birds, more than any other group of animal, depend on trees for shelter, perching, nesting and food. Many trees also rely on the birds to assist with seed dispersal, pollination and insect control. By planting out your garden with a range of native species that provide nectar, seeds and fruit, you will find that the birds should come in flocks! Many nectar-producing plants will also attract insects, which in turn provide a food source for insectivorous birds.

Planting some of the cultivated non-local native flowering plants may attract some of the more aggressive birds, such as the Yellow-throated Miner, and therefore you may wish to stick to the local native plants.

Plants will not only double as a food source, but those with a dense cover of vegetation will also act as shelter and protection for smaller and less aggressive species. Providing cover plants next to food plants will help to ensure that all bases are covered.

Large areas of open space (e.g. the living envelope) can create a barrier across which small birds cannot disperse. Garden beds can be used as corridors over these open areas to encourage birds to move from one part of the property to another.

Planting a variety of levels will also help to increase the bird diversity in your garden. Grasses around the edges of the garden space will attract species of ground foragers, such as finches and wrens, as well as birds that chew on grass roots, such as Galahs. A level of small shrubs is required for species of nectar-feeders and insectivores. Larger trees are preferred by species that prey on small reptiles, like Kingfishers and Crows, as well as seed-eaters, such as Cockatoos. Birds of prey prefer to perch in tall trees that lack a little canopy and open clearings in which to seek out their food. Several other species will hawk (catch on the wing) for insects and will do so from a range of canopy heights. Retaining mature trees with hollows may provide important nesting sites and attract larger species to the property.

A water source, which was the focus of this survey, will help to attract birds. Ensure that steep-sided or slippery bird baths have a large rock or two or a large branch leaning in from one side. This is to ensure that if a bird is to slip in the pond, it has a sturdy item to grab hold of and escape. Placing the water source close to a protective shrub will encourage even the shyest of birds to visit the bath.

Until next time, happy bird watching!

# 5. APPENDICES

#### 5.1. Avian Profiles

Some information on each species observed throughout the Bird Bath Biodiversity Survey is given below, with information sourced from Birdlife Australia (Birdlife Australia 2017).

# 5.1.1. Spiny-cheeked Honeyeater

One of the most common suburban birds around Alice Springs with a very distinctive call which is immediately reminiscent of Central Australia.

Spiny-cheeked Honeyeaters are sociable and aggressive, and are often seen or heard in large flocks, foraging high in trees.

**Distribution:** The Spiny-cheeked Honeyeater is found across mainland Australia, especially in the arid interior, in dry woodlands, mallee and acacia scrub.

**Diet:** The Spiny-cheeked Honeyeater feeds mainly on nectar and fruit, but may also eat insects, reptiles and baby birds. It forages in the dense foliage and outer branches of trees, but may sometimes feed on the ground or take insects in the air.



#### 5.1.2. Hawk

The Collared Sparrowhawk and the Brown Goshawk provide a notorious confusion pair which can trouble even an experienced observer. The Collared Sparrowhawk is smaller and finer than the Brown Goshawk and lacks its heavy brow. They are a medium-sized, finely built raptor (bird of prey) with wide staring bright yellow eyes. The sexes are similar in appearance but males are smaller than females.

**Distribution:** Sparrowhawks and Goshawks are widely distributed across Australia. Although widespread, they are generally uncommon and secretive. Found in most timbered habitats.

**Diet:** Sparrowhawks mainly eat small birds caught in flight. Their very long middle toe is used to clutch their prey, before it is killed, plucked and eaten. Brown Goshawks feed on small mammals (esp. Rabbits), as well as birds, reptiles and insects and sometimes, carrion (dead animals). They hunt stealthily from a low, concealed perch, using sudden,



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short bursts of speed to pounce onto prey and use their long legs and clawed toes to reach out and strike it. It will occasionally stalk or run along the ground after insects. Prey items are taken back to a perch to be partially plucked (mammals, birds) and then eaten.

# 5.1.3. Australian Ringneck

The Australian Ringneck is a large parrot, differing in size and plumage in different regions. The common green parrot of Alice Springs parks and gardens.

**Distribution:** The Australian Ringneck is endemic to (only found in) Australia. The Mallee group is found in arid eastern Northern Territory, north-western Queensland and inland eastern Australia. The Port Lincoln group is in central and western arid Australia. Australian Ringnecks are found in pairs or small flocks over lightly timbered areas, open woodlands and tree-lined watercourses.

**Diet:** Australian Ringnecks feed mainly on the ground, but also in trees and shrubs, usually in the morning and late afternoon, resting in the heat of the day. They eat seeds, and some fruits, flowers, nectar and insects and their larvae.



## 5.1.4. Grey Shrike-thrush

A frequent visitor to many suburban parks and gardens. The Grey Shrike-thrush is considered to be one of the best songsters in Australia. It was formerly known as the 'Harmonious Thrush', and little wonder, as the species has hundreds, if not thousands, of different songs, most of which are musical masterpieces.

**Distribution:** Grey Shrike-thrushes are found in all but the most arid regions of Australia and Tasmania, as well as on the larger offshore islands and in southern New Guinea.

**Diet:** The Grey Shrike-thrush searches for food on the ground, generally around fallen logs, and on the limbs and trunks of trees. It has a varied diet consisting of insects, spiders, small mammals, frogs and lizards, and birds' eggs and young, and some birds have been observed feeding on carrion. Fruits and seeds may also be eaten on occasion.



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#### 5.1.5. Black-faced Cuckoo-shrike

Commonly seen throughout town. They are slender, attractive birds. They have a curious habit of shuffling their wings upon landing, a practice that gave rise to the name "Shufflewing", which is often used for this species. Young birds resemble the adults, except the black facial mask is reduced to an eye stripe.

**Distribution:** The Black-faced Cuckoo-shrike is widespread and common, found in almost any wooded habitat. It is also familiar in many suburbs, where birds are often seen perched on overhead wires or television aerials.

**Diet:** Black-faced Cuckoo-shrikes feed on insects and other invertebrates. These may be caught in the air, taken from foliage or caught on the ground. In addition to insects, some fruits and seeds are also eaten.



#### 5.1.6. *Crow*

The 2 species of crow (Little and Torresian) are difficult to separate in Alice Springs and are thus not identified to species here.

**Distribution:** The Crow is found on rainforest fringes, in open forests and woodlands, taller scrublands, beaches and in dry areas, along watercourses with tall timber. It is also found around farms and in croplands. It requires tall trees for nesting.

**Diet:** The Crow eats grain, but will also eat fruit, insects and other invertebrates, eggs, garbage and carrion (dead animals). Often seen feeding along roads. Perches on the heads of crop plants or on tall artificial structures.



#### 5.1.7. Galah

The under-rated pastel pink and grey parrot of suburbs across Australia. Galahs have a bouncing acrobatic flight, but spend much of the day sheltering from heat in the foliage of trees and shrubs. Huge noisy flocks of birds congregate and roost together at night.

**Distribution:** The Galah is one of the most abundant and familiar of the Australian parrots, occurring over most of Australia, including some offshore islands. The Galah is found in large flocks in a variety of timbered habitats, usually near water.

**Diet:** Galahs form huge, noisy flocks which feed on seeds, mostly from the ground. Seeds of grasses and cultivated crops are eaten, making these birds agricultural pests in some areas. Birds may travel large distances in search of favourable feeding grounds.



### 5.1.8. Diamond Dove

The Diamond Dove is the smallest Australian Dove, with a distinctive red eye-ring, blue-grey head and breast. The back and wings are smoky brown with fine white spots on the wings. In flight, there is a distinctive chestnut wing panel. The female is browner. It is also known as Little Dove or Red-eyed Dove.

**Distribution:** Diamond Doves are endemic to Australia (found only here) and fairly widely distributed in arid and semi-arid grassland savannah. They gather in small parties or flocks in dry open savanna in mulga areas often among spinifex or grasses. They are also often in open riparian woodland (beside waterways).

**Diet:** Diamond Doves feed on the ground for seeds from herbs and grasses and are never far from water. They walk sedately when feeding but can run quickly, with tail raised, if disturbed.



#### 5.1.9. Peaceful Dove

They are usually seen in pairs or small parties, never far from water. The flight is direct, low to the ground and undulating. Their call is very distinctive and is the source of one of their common names, 'Doodle-Doo'. They also may be called the Placid, Zebra or Barred Dove. These can still be encountered in a few places around town. Some residents may be lucky enough to have a pair nearby.

**Distribution:** Peaceful Doves are found in Asia, south Burma and the Malay peninsula, through Indochina to eastern New Guinea and Australia, where it is widespread in the north west, north and eastern mainland. Peaceful Doves are found in open dry woodland with a grassy understorey and the edges of rainforest. In drier areas, they are often in woodland beside rivers, pandanus and vine thickets. They feed on the ground and roost in trees.

**Diet:** Peaceful Doves forage on the ground in open, bare areas, in paddocks, beside roads and in gardens. They feed mainly on small seeds of grasses and sedges, and sometimes small insects. They need to drink at least twice a day.



# 5.1.10. Magpie-lark

The Magpie-lark is often referred to as a Peewee or Pee Wee, after the sound of its distinctive calls.

**Distribution:** Magpie-larks are confined to Australasia, being found throughout Australia (although only a rare vagrant to Tasmania), southern New Guinea and Timor. Magpie-larks are found in almost any habitat except rainforests and the driest deserts and are familiar urban birds.

**Diet:** The Magpie-lark is mostly ground-dwelling, and is usually seen slowly searching on the ground for a variety of insects and their larvae, as well as earthworms and freshwater invertebrates.

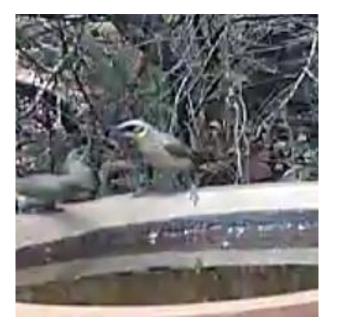


# 5.1.11. Grey-headed Honeyeater

A distinctive honeyeater with a dapper slate-grey crown.

**Distribution:** It is endemic to Australia.

**Diet:** Feeds on nectar, insects (and their products such as lerps and honeydew), and fruit.



# 5.1.12. White-plumed honeyeater

The common small honeyeater of eucalypt communities, gardens and parks throughout Alice Springs. The males are slightly larger but the sexes are otherwise similar. Young are duller, with much less distinct plumes and a paler bill. Usually gregarious and seen constantly moving from tree to tree with rapid darting movements.

**Distribution:** Endemic to mainland Australia, the White-plumed Honeyeater is found found everywhere except in the tropical north, Cape York Peninsula and the most arid areas. The White-plumed Honeyeater is found in open forests and woodlands, often near water and wetlands. It is scarce or absent in arid regions unless water is artificially supplied (e.g. water troughs for stock). Its overall distribution is linked to River Red Gums. It is also found in remnant bushland in urban areas, as well as parks and gardens.

**Diet:** The White-plumed Honeyeater feeds very actively from leaves and flowers in the crowns of trees and in shrubs. Its main foods are nectar, insects (and their products such as lerps and honeydew), manna and fruit, with some seeds. They sometimes also feed in the air or forage upon the ground.



# 5.1.13. Singing Honeyeater

The Singing Honeyeater is one of Australia's most widespread species of honeyeater. Young birds are similar to adults, with a lighter forehead and crown and a narrower, duller face marking. This widely-distributed species is known for its pleasant voice and is usually seen in small noisy groups of five or six birds.

**Distribution:** The Singing Honeyeater is widespread on mainland Australia. It is not common in the Top End but otherwise widespread in the Northern Territory. The Singing Honeyeater is found mostly in open shrublands and low woodlands, especially dominated by acacias. It is also be found in swamplands, along creeks and drainage channels. It is often seen in urban parks and gardens and around farmyards, particularly in south-west Western Australia.

**Diet:** The Singing Honeyeater feeds on nectar, insects and fruit. It forages in low shrubs or on the ground, usually alone, but sometimes in loose flocks.



# 5.1.14. Brown Honeyeater

It has a fast, undulating flight and is seen either singly, in pairs or small flocks in flowering trees and shrubs. A common garden bird and often the rowdiest participant in the dawn chorus.

**Distribution:** The Brown Honeyeater is widespread in Australia in a wide range of wooded habitats, usually near water. It is often found in mangroves and woodlands or dense forests along waterways. It can also be found in mallee, spinifex woodlands, low dense shrublands, heaths and saltmarshes, as well as in monsoon forests or rainforests in the Top End. It is common in parks, gardens and street trees in urban areas as well as on farms and in remnant vegetation along roadsides.

**Diet:** The Brown Honeyeater feeds on nectar and insects, foraging at all heights in trees and shrubs. It may be seen in mixed flocks with other honeyeaters. However, it will be displaced at bird feeders by larger birds.



# 5.1.15. Variegated Fairy-wren

Common in well-vegetated gardens and in saltbush and tight scrub around town. The breeding male Variegated Fairy-wren is brightly coloured. The depth and variety of colours in the male varies among the four subspecies, distributed across the Australian mainland. Non-breeding males, females and young birds are brownish grey.

**Distribution:** The Variegated Fairy-wren is found throughout Australia, being absent only from Cape York Peninsula, Tasmania and the extreme southwest corner of Western Australia. It is found in forest, woodland and shrub land habitats

**Diet:** The Variegated Fairy-wren feeds on insects and a small amount of seeds. The birds feed around the base of small shrubs, and seldom stray into the open. Some food may be found among the bark and foliage of short trees and grasses.



# 5.1.16. Yellow-throated Miner

This species is noisy and sociable, and may be aggressive towards other birds.

**Distribution:** The Yellow-throated Miner is found across mainland Australia, with the exception of the east coast south of central Queensland, Arnhemland and western Gulf of Carpentia, Cape York or the most arid parts of the interior. The Yellow-throated Miner is found in dry forests and woodlands, especially mallee. It is also seen in parks, gardens and farmlands.

**Diet:** The Yellow-throated Miner feeds on insects, nectar, berries and fruit, foraging at all levels of the canopy and on the ground. It usually forages in noisy flocks.



# 5.1.17. Crested Pigeon

Often referred to as a 'topknot' pigeon, but this should be avoided due to confusion with another species of that name, which doesn't occur in Central Australia. If startled, this pigeon takes to the air with a characteristic whistling flight, and glides with down turned wings. The whistling sound is produced by the air passing over a modified primary feather on the wing. Upon landing, the pigeon swings its tail high in the air.

**Distribution:** The Crested Pigeon is native to Australia and is common throughout most of the mainland. The Crested Pigeon is found in lightly wooded grasslands in both rural and urban areas. It is usually found in the vicinity of water, as it has to drink every day, and is absent from the denser forests.

**Diet:** The Crested Pigeon's diet consists mostly of native seeds, as well as those of introduced crops and weeds. Some leaves and insects are also eaten. Feeding is in small to large groups, which also congregate to drink at waterholes. Birds arrive in nearby trees, and often sit for long periods before descending to drink.



#### 5.1.18. Mulga Parrot

This bird is also called the Many-coloured or Varied Parrot or the Many-coloured Parakeet.

Distribution: The Mulga Parrot is found in central southern Queensland; west of the Great Dividing Range in New South Wales; in the Mallee country of north-western Victoria; throughout much of South Australia; and in Western Australia south of about 23\*S. The Mulga Parrot is found in arid or semi-arid, sparse, even stunted, shrublands and woodlands often dominated by Acacias, eucalypts, native pines (Callitris) or Casuarinas. Its habitat usually has a ground cover of low shrubs, spinifex, samphire or chenopods.

**Diet:** Mulga Parrots eat the seeds of grasses, shrubs and trees, and also flowers and fruit and occasionally insect larvae. They usually feed in pairs or as a small group consisting of parents and young.



#### 5.1.19. Western Bowerbird

They are also known as the Spotted Bowerbird or Mimic-bird. The males build a bower which is then used to display mating prowess to prospective females.

**Distribution:** This bowerbird is endemic to Central Australia and mid-central inland and semi-arid Western Australia. Western Bowerbirds are found in open riverine woodland and shrub thickets in arid zones, in rocky gorges and ranges, near water. They also visit gardens, parks and camping areas. Though they may move about locally searching for fruit and water they are thought to be resident or sedentary.

**Diet:** Bowerbirds forage in shrubs or trees for fruit and hop busily across the ground, searching for fruit, insects and seeds. They particularly like Rock Figs.



# 5.1.20. Willie Wagtail

The name wagtail stems from the constant sideways wagging of the tail.

**Distribution:** The Willie Wagtail is found throughout mainland Australia but is absent from Tasmania. Willie Wagtails are found in most open habitats, especially open forests and woodlands, tending to be absent from wet sclerophyll forests and rainforests. They are often associated with water-courses and wetlands and are common around human habitation.

**Diet:** Willie Wagtails are active feeders. Birds can be seen darting around lawns as they hunt for insects on the ground. As they do so, the tail is wagged from side to side. Insects are also captured in the air, in active chases.



# 5.1.21. Spotted Turtle-dove

This bird was introduced into Australia in the mid-1800s and early 1900s and quickly became established. In Alice Springs, they became established in the 1980's when 10 individuals were liberated from an aviary. They are now considered a feral species.

**Distribution:** The Spotted Turtle-dove is native to eastern Asia. They are common around human habitation and can easily be seen in parks, gardens and agricultural areas.

**Diet:** Spotted Turtle-doves feed on grains, seeds and scraps. The birds are seen alone or in small flocks, feeding mostly on the ground. Some seeds may be taken in trees and bushes, and birds often enter animal houses, such as chicken coops, to feed on the commercial food.



#### 5.1.22. Zebra Finch

The familiar Centralian finch with the nyii-nyii call. Often seen at bird baths and water troughs. The introduction of artificial dams and water tanks has actually increased the Zebra Finch's natural range, as the birds need to drink on a regular basis.

**Distribution:** Zebra Finches are the most common and widespread of Australia's grassfinches, found across the Australian mainland, with the exception of Cape York Peninsula and some coastal areas. Zebra Finches are most commonly found in the drier areas of Australia, living year round in social flocks of up to 100 or more birds. They can be found in a variety of habitats, mainly dry wooded grasslands, bordering watercourses.

**Diet:** Zebra Finches feed in large flocks on fallen or ripening grass seeds. Insects may be taken at any time of the year, but are particularly favoured when feeding young. Feeding takes place on the ground, and, unlike some other grassfinches, birds never pull seed heads down with their feet.



#### 5.2. Fauna List

Table 19. Avian species found in the Alice Springs region, within a 25 Km radius of the CBD. List derived from NT NRM Infonet. Additional species are listed where presence is known. Species are listed alphabetically according to scientific nomenclature.

Note that the following species were not included from the NT NRM Infonet list due to known absence from Alice Springs: Amytornis modestus modestus, Amytornis striatus, Anas querquedula, Cacatua galerita, Cacomantis flabelliformis, Calidris himantopus, Calidris minuta, Calidris tenuirostris, Charadrius dubius, Cinclosoma castanotus, Corvus coronoides, Dendrocygna arcuate, Egretta garzetta, Ephippiorhynchus asiaticus, Eremiornis carteri, Gallinago megala, Grus rubicunda, Himantopus himantopus, Hirundapus caudacutus, Hirundo rustica, Leipoa ocellata, Limicola falcinellus, Mirafra javanica, Motacilla cinerea, Motacilla flava, Neophema splendida, Numenius phaeopus, Pedionomus torquatus, Porphyrio porphyrio, Tringa ochropus, Tyto capensis.

Common Name	Scientific Nomenclature
Spiny-cheeked Honeyeater	Acanthagenys rufogularis
Inland Thornbill	Acanthiza apicalis
Yellow-rumped Thornbill	Acanthiza chrysorrhoa
Slaty-backed Thornbill	Acanthiza robustirostris
Chestnut-rumped Thornbill	Acanthiza uropygialis
Collared Sparrowhawk	Accipiter cirrocephalus
Brown Goshawk	Accipiter fasciatus
Australian Reed-Warbler	Acrocephalus australis
Common Sandpiper	Actitis hypoleucos
Australian Owlet-nightjar	Aegotheles cristatus
Dusky Grasswren	Amytornis purnelli
Chestnut Teal	Anas castanea
Grey Teal	Anas gracilis
Australasian Shoveler	Anas rhynchotis
Pacific Black Duck	Anas superciliosa
Australasian Darter	Anhinga novaehollandiae
Australasian Pipit	Anthus novaeseelandiae
Southern Whiteface	Aphelocephala leucopsis
Banded Whiteface	Aphelocephala nigricincta
Pacific Swift	Apus pacificus
Wedge-tailed Eagle	Aquila audax
Cattle Egret	Ardea ibis
Intermediate Egret	Ardea intermedia
Great Egret	Ardea modesta
White-necked Heron	Ardea pacifica
Australian Bustard	Ardeotis australis
Ruddy Turnstone	Arenaria interpres
Black-faced Woodswallow	Artamus cinereus
White-breasted Woodswallow	Artamus leucorynchus
Little Woodswallow	Artamus minor
Masked Woodswallow	Artamus personatus
White-browed Woodswallow	Artamus superciliosus
Pacific Baza	Aviceda subcristata
Hardhead	Aythya australis
Australian Ringneck	Barnardius zonarius
Bush Stone-curlew	Burhinus grallarius
Little Corella	Cacatua sanguinea
Long-billed Corella	Cacatua tenuirostris
Pallid Cuckoo	Cacomantis pallidus
Sharp-tailed Sandpiper	Calidris acuminata
Sanderling	Calidris alba
Red Knot	Calidris canutus
Curlew Sandpiper	Calidris ferruginea
Pectoral Sandpiper	Calidris melanotos

Common Name	Scientific Nomenclature
Red-necked Stint	Calidris ruficollis
Long-toed Stint	Calidris subminutus
Red-tailed Black Cockatoo	Calyptorhynchus banksii
Pheasant Coucal	Centropus phasianinus
Pied Honeyeater	Certhionyx variegatus
Horsfield's Bronze-cuckoo	Chalcites basalis
Black-eared Cuckoo	Chalcites osculans
Inland Dotterel	Charadrius australis
Greater Sand Plover	Charadrius leschenaultii
Lesser Sand Plover	Charadrius mongolus
Red-capped Plover	Charadrius ruficapillus
Oriental Plover	Charadrius veredus
Maned Duck	Chenonetta jubata
White-backed Swallow	Cheramoeca leucosterna
Whiskered Tern	Chlidonias hybridus
White-winged Tern	Chlidonias leucopterus
Silver Gull	Chroicocephalus novaehollandiae
Brown Songlark	Cincloramphus cruralis
Rufous Songlark	Cincloramphus mathewsi
Cinnamon Quail-thrush	Cinclosoma cinnamomeum
Swamp Harrier	Circus approximans
Spotted Harrier	Circus assimilis
Golden-headed Cisticola	Cisticola exilis
Banded Stilt	Cladorhynchus leucocephalus
White-browed Treecreeper	Climacteris affinis
Grey Shrike-thrush	Colluricincla harmonica
Rock Dove	Columba livia
Grey Honeyeater	Conopophila whitei
Ground Cuckoo-shrike	Coracina maxima
Black-faced Cuckoo-shrike	Coracina novaehollandiae
Little Crow	Corvus bennetti
Torresian Crow	Corvus orru
Stubble Quail	Coturnix pectoralis
Brown Quail	Coturnix ypsilophora
Pied Butcherbird	Cracticus nigrogularis
Australian Magpie	Cracticus tibicen
Grey Butcherbird	Cracticus torquatus
Black Swan	Cygnus atratus
Varied Sittella	Daphoenositta chrysoptera
Plumed Whistling-Duck	Dendrocygna eytoni
Mistletoebird	Dicaeum hirundinaceum
Emu Milita Garanti II.	Dromaius novaehollandiae
White-faced Heron	Egretta novaehollandiae
Pied Heron	Egretta picata
Black-shouldered Kite	Elanus axillaris
Letter-winged Kite	Elanus scriptus
Black-fronted Dotterel	Elseyornis melanops
Painted Finch	Emblema pictum
Galah Oranga Chat	Eolophus roseicapillus
Orange Chat	Epthianura aurifrons
Yellow Chat	Epthianura crocea
Crimson Chat	Epthianura tricolor
Red-kneed Dotterel	Erythrogonys cinctus
Eastern Koel	Eudynamys orientalis
Spotted Nightjar Brown Falcon	Eurostopodus argus
Nankeen Kestrel	Falco berigora Falco cenchroides
Grey Falcon	Falco hypoleucos

Common Name	Scientific Nomenclature
Australian Hobby	Falco longipennis
Peregrine Falcon	Falco peregrinus
Black Falcon	Falco subniger
Eurasian Coot	Fulica atra
Latham's Snipe	Gallinago hardwickii
Dusky Moorhen	Gallinula tenebrosa
Buff-banded Rail	Gallirallus philippensis
Gull-billed Tern	Gelochelidon nilotica
Diamond Dove	Geopelia cuneata
Peaceful Dove	Geopelia placida
Spinifex Pigeon	Geophaps plumifera
Western Gerygone	Gerygone fusca
Oriental Pratincole	Glareola maldivarum
Magpie-lark	Grallina cyanoleuca
Whistling Kite	Haliastur sphenurus
Black-breasted Buzzard	Hamirostra melanosternon
Little Eagle	Hieraaetus morphnoides
White-headed Stilt	Himantopus leucocephalus
Welcome Swallow	Hirundo neoxena
Caspian Tern	Hydroprogne caspia
White-winged Triller	Lalage tricolor
Grey-headed Honeyeater	Lichenostomus keartlandi
White-plumed Honeyeater	Lichenostomus penicillatus
Grey-fronted Honeyeater	Lichenostomus plumulus
Singing Honeyeater	Lichenostomus virescens
Brown Honeyeater	Lichmera indistincta
Bar-tailed Godwit	Limosa lapponica
Black-tailed Godwit	Limosa limosa
Major Mitchell's Cockatoo	Lophocroa leadbeateri
Square-tailed Kite	Lophoictinia isura
Pink-eared Duck	Malacorhynchus membranaceus
Variegated Fairy-wren	Malurus lamberti
White-winged Fairy-wren	Malurus leucopterus
Splendid Fairy-wren	Malurus splendens
Yellow-throated Miner	Manorina flavigula
Spinifexbird	Megalurus carteri
Little Grassbird	Megalurus gramineus
Tawny Grassbird	Megalurus timoriensis
Hooded Robin	Melanodryas cucullata
Black-chinned Honeyeater	Melithreptus gularis
Budgerigar	Melopsittacus undulatus
Rainbow Bee-eater	Merops ornatus
Little Pied Cormorant	Microcarbo melanoleucos
Jacky Winter	Microeca fascinans
Black Kite	Milvus migrans
Bourke's Parrot	Neopsephotus bourkii
Southern Boobook	Ninox boobook
Little Curlew	Numenius minutus
Nankeen Night Heron	Nycticorax caledonicus
Cockatiel	Nymphicus hollandicus
Crested Pigeon	Ocyphaps lophotes
Sooty Tern	Onychoprion fuscata
Crested Bellbird	Oreoica gutturalis
Blue-billed Duck	Oxyura australis
Rufous Whistler	Pachycephala rufiventris
Red-browed Pardalote	Pardalotus rubricatus
Striated Pardalote	Pardalotus striatus
Australian Pelican	Pelecanus conspicillatus

Common Name	Scientific Nomenclature
Fairy Martin	Petrochelidon ariel
Tree Martin	Petrochelidon nigricans
Red-capped Robin	Petroica goodenovii
Great Cormorant	Phalacrocorax carbo
Little Black Cormorant	Phalacrocorax sulcirostris
Pied Cormorant	Phalacrocorax varius
Red-necked Phalarope	Phalaropus lobatus
Common Bronzewing	Phaps chalcoptera
Flock Bronzewing	Phaps histrionica
Ruff	Philomachus pugnax
Yellow-billed Spoonbill	Platalea flavipes
Royal Spoonbill	Platalea regia
Glossy Ibis	Plegadis falcinellus
Pacific Golden Plover	Pluvialis fulva
Grey Plover	Pluvialis squatarola
Tawny Frogmouth	Podargus strigoides
Great Crested Grebe	Podiceps cristatus
Hoary-headed Grebe	Poliocephalus poliocephalus
Princess Parrot	Polytelis alexandrae
White-browed Babbler	Pomatostomus superciliosus
Grey-crowned Babbler	Pomatostomus temporalis
Australasian Swamphen	Porphyrio melanotus
Australian Crake	Porzana fluminea
Baillon's Crake	Porzana pusilla
Spotless Crake	Porzana tabuensis
Mulga Parrot	Psephotus varius
Chiming Wedgebill	Psophodes occidentalis
Western Bowerbird	Ptilonorhynchus guttatus
	Purnella albifrons
White-fronted Honeyeater  Redthroat	Pyrrholaemus brunneus
	Recurvirostra novaehollandiae
Red-necked Avocet	Rhipidura albiscapa
Grey Fantail	,
Willie Wagtail	Rhipidura leucophrys
Australian Painted Snipe	Rostratula australis
Channel-billed Cuckoo	Scythrops novaehollandiae
Weebill	Smicrornis brevirostris
Freckled Duck	Stictonetta naevosa
Australian Pratincole	Stiltia isabella
Rufous-crowned Emu-wren	Stipiturus ruficeps
Spotted Turtle Dove	Streptopelia chinensis
Black Honeyeater	Sugamel niger
Australasian Grebe	Tachybaptus novaehollandiae
Australian Shelduck	Tadorna tadornoides
Zebra Finch	Taeniopygia guttata
Australian White Ibis	Threskiornis molucca
Straw-necked Ibis	Threskiornis spinicollis
Red-backed Kingfisher	Todiramphus pyrrhopygius
Sacred Kingfisher	Todiramphus sanctus
Black-tailed Native-hen	Tribonyx ventralis
Rainbow Lorikeet	Trichoglossus haematodus
Grey-tailed Tattler	Tringa brevipes
Wood Sandpiper	Tringa glareola
Common Greenshank	Tringa nebularia
Marsh Sandpiper	Tringa stagnatilis
Red-chested Button-quail	Turnix pyrrhothorax
Little Button-quail	Turnix velox
Eastern Barn Owl	Tyto javanica
Masked Lapwing	Vanellus miles
Madrida Eapwilly	Varionas irinos

Common Name	Scientific Nomenclature
Banded Lapwing	Vanellus tricolor
Terek Sandpiper	Xenus cinereus
Silvereye	Zosterops lateralis

#### 6. REFERENCES

Birdlife Australia (2017). Birdlife Australia Bird Profiles. (Accessed November). http://birdlife.org.au/bird-profile Bureau of Meteorology (2017). Alice Springs NT Daily Weather Observations. (Accessed November). http://www.bom.gov.au/climate/dwo/IDCJDW8002.latest.shtml

See your Land for Wildlife membership pack for a list of recommended books to assist you with identifying avian fauna and for conserving habitat on your property.

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For further information about the Land for Wildlife and Garden for Wildlife Central Australia schemes please visit <u>wildlife.lowecol.com.au</u> or email the coordinator with your queries at <u>LFW@lowecol.com.au</u>.

### 7. ANIMAL ETHICS AND PERMITS

This biodiversity survey was being conducted with Animal Ethics approval (Charles Darwin University Animal Ethics 12006 Landscape, fauna and flora survey and impact assessment in relation to mineral and petroleum exploration, infrastructure development and conservation initiatives throughout the Northern Territory), a Parks and Wildlife Commission NT permit (60855 Permit to Interfere with Protected Wildlife) and a Department of Primary Industry and Resources permit (026 Licence to Use Premises for Teaching or Research Involving Animals).

### 8. ACKNOWLEDGEMENTS

We thank the survey participants for allowing the Land for Wildlife team to visit and monitor the bird baths on their property. Appreciation goes to Parks and Wildlife Commission NT for use of several additional camera traps. Thanks also go to Birdlife Central Australia for identifying several bird species.