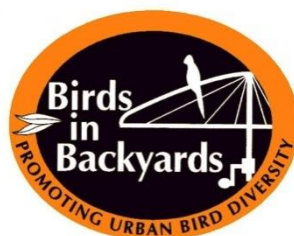


Aussie Backyard Bird Count 2017 Results:

Greater Shepparton City Council

Emu Package + Add-on

birds are in our nature



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This report was prepared by: Amy Adams.

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1. Introduction

1.1 Aussie Backyard Bird Count (ABBC)

In 2014, as part of BirdLife Australia's National Bird Week celebrations, BirdLife Australia ran the first ever Aussie Backyard Bird Count — now one of the largest citizen science projects of this nature in Australia. The Aussie Backyard Bird Count provides an opportunity for everyone — from school children, senior citizens, families and community groups — to become citizen scientists for one week every October. With over 85% of Australians living in urban environments with often limited opportunities to experience nature, the Aussie Backyard Bird Count is a great way to get outside and connect with nature.

The data collected by these citizen scientists plays a vital role in providing important information to BirdLife Australia. We know more about our threatened birds than we do about our common backyard birds and the Aussie Backyard Bird Count helps to fill this knowledge gap, as well as increasing our understanding of Australian bird species that live where people live. The Aussie Backyard Bird Count also helps raise the profile of bird species throughout Australia, highlighting their importance and promoting a national passion for Australian birds.

Each year this natural passion is confirmed, with the Aussie Backyard Bird Count attracting significant interest from the public eager to be involved and help contribute to our growing knowledge of Australian birds. Public involvement has doubled in the four years the Aussie Backyard Bird Count has run, with the number of birds counted doubling. Additionally, involvement by local councils increases year-on-year with more bird-focused events being held during Bird Week, increasing the awareness and importance of local birds within their communities. And most recently with the release of lesson plans, a record number of schools took part in 2017 encouraging students to not only participate at school but also at home.

The national focus on birds is extremely important with data showing Australian backyards have been shrinking since the 1990s, and populations of some of our most familiar birds like the Laughing Kookaburra, have also declined. While data collected from the Aussie Backyard Bird Count is currently only a baseline, results from the past four years show that Australian backyards — in all their shapes and sizes — continue to attract a range of birds, giving us hope that even as the iconic Aussie backyard shrinks, many native birds can and do remain. Results from the Aussie Backyard Bird Count support the decline in Kookaburra numbers over the years while aggressive species such as the Noisy Miner appear to be increasing. With growing national and international concern for the welfare of these iconic birds, citizen science projects such as the ABBC can help provide an insight into how Aussie birds are faring and results can help formulate subsequent management decisions.

1.2 Birds in Backyards (BIBY)

Urbanisation is one of the most dramatic and rapidly expanding forms of man-made change to our landscapes. As our urban habitats change, our bird life does as well. The loss of urban bird diversity has both ecological and human/cultural consequences. With over 90% of Australians living in urban and regional centres, for many people, the only place where they connect with the natural world is in their own backyards. The Birds in Backyards Program (BIBY) builds knowledge, skills and practical support to develop action-oriented responses to the decline of bird diversity. BIBY began in 1998 and will be celebrating its 20th year as a national citizen science program in 2018. Underpinned by bird monitoring and habitat assessments, BIBY encourages people to take conservation action for birds wherever you enjoy them – home, school, work, or local parks and reserves. There have been exciting changes recently - a new

framework and program objectives - and in 2017 our surveys joined BirdLife Australia's data portal Birddata. This survey data is used to inform policies, best practice guidelines, and provide advocacy for threatened species. We want people taking action for birds, informed by their own data. The ultimate goal of BIBY is a diverse urban native bird community, achieved by behavioural change through action research, education for sustainability and advocacy. Through our dedicated citizen scientists and our partners, BIBY empowers people to make changes at all levels (from individuals in a patch to government at landscape scales) to create and maintain habitat for birds. Local councils can partner with BIBY to achieve education and conservation outcomes for our urban birds – let's get our communities taking action together!

2. 2015-2017 Aussie Backyard Bird Count Statistics

The following statistics relate to the Greater Shepparton City Council region during the 2015, 2016 and 2017 Aussie Backyard Bird Counts that ran from the 19th to 25th October 2015, 17th to 23rd October 2016 and 23rd to 29th October 2017:

- 2015: 28 observers participated in the bird count, submitting 47 checklists (Figure 1)
2016: 16 observers participated in the bird count, submitting 53 checklists (Figure 1)
2017: 96 observers participated in the bird count, submitting 160 checklists (Figure 1)
- 2015: Submitted checklists ranged from between 1 and 7 per registered user (average of 1.7 per registered user)
2016: Submitted checklists ranged from between 1 and 13 per registered user (average of 3.3 per registered user)
2017: Submitted checklists ranged from between 1 and 9 per registered user (average of 2.5 per registered user)
- 2015: The combined duration that observers surveyed over was 13 hours and 21 minutes
2016: The combined duration that observers surveyed over was 15 hours and 54 minutes
2017: The combined duration that observers surveyed over was 50 hours and 18 minutes
- 2015: The number of birds recorded ranged from 6 to 487 per registered user, with an average of 64 birds recorded per registered user
2016: The number of birds recorded ranged from 11 to 561 per registered user, with an average of 152 birds recorded per registered user
2017: The number of birds recorded ranged from 4 to 458 per registered user, with an average of 105 birds recorded per registered user
- 2015: A total of 1,797 individual birds were observed and recorded during the week (Table 1)
2016: A total of 2,431 individual birds were observed and recorded during the week (Table 1)

2017: A total of 6,821 individual birds were observed and recorded during the week (Table 1; Figure 2)

- 2015: 76 bird species were recorded (Table 1)
2016: 87 bird species were recorded (Table 1)
2017: 116 bird species were recorded (Table 1)
- 29 bird species detected in the 2017 Aussie Backyard Bird Count were not detected in either the 2016 or 2015 Aussie Backyard Bird Count. Four species were detected in 2015 but not in 2016 or 2017 and seven species were detected in 2016 but not in 2015 or 2017 (Table 1)
- 2015: The reporting rate for species (percentage of surveys a species was detected in) ranged from 74.47% to 2.13% (Table 1)
2016: The reporting rate for species ranged from 73.58% to 1.89% (Table 1)
2017: The reporting rate for species ranged from 59.38% to 0.63% (Table 1)
Species which had lots of individuals detected but were associated with a low reporting rate indicates that multiple birds were detected within single surveys (i.e. seen in large flocks).
- 89 schools (kindergarten to high school) participated in the Aussie Backyard Bird Count within Victoria

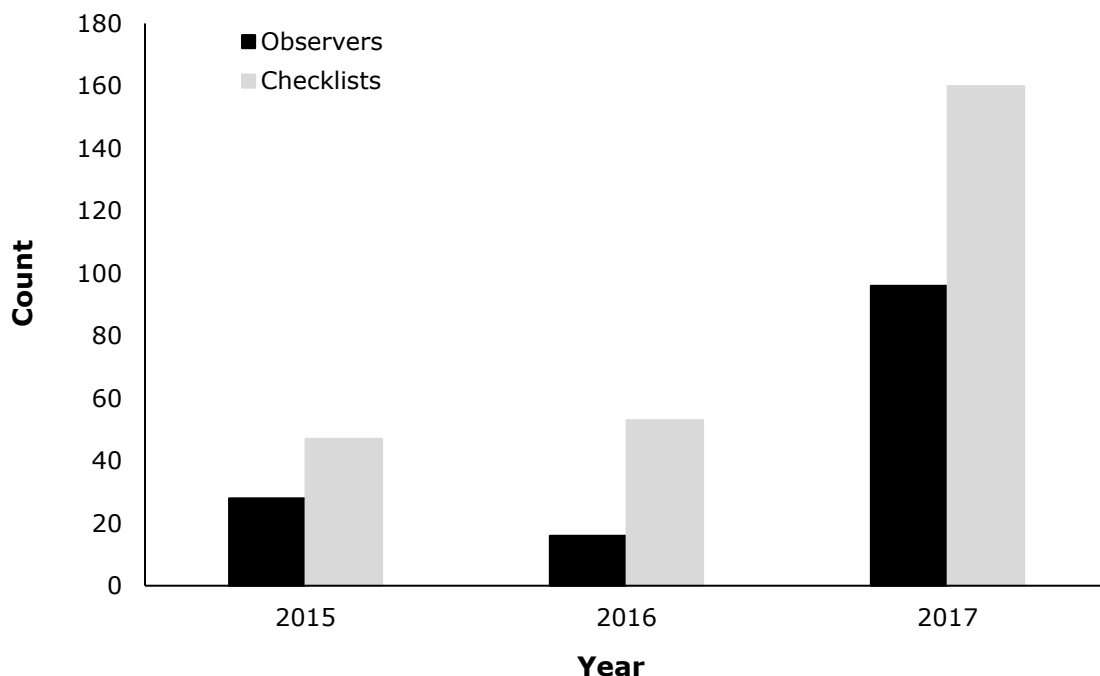


Figure 1: Comparison of the number of observers and number of checklists submitted during the Aussie Backyard Bird Count over the last three years.

Table 1: The complete species list, number of individuals observed and reporting rate within the Greater Shepparton City Council boundaries during the 2017 Aussie Backyard Bird Count.

Bird Species	Count			Reporting rate (%)		
	2017	2016	2015	2017	2016	2015
House Sparrow*	897	282	209	59.38	49.06	61.70
Welcome Swallow	379	163	95	38.75	43.40	38.30
Galah	341	94	72	41.88	24.53	29.79
Superb Fairy-wren	320	74	89	40.00	26.42	44.68
Australian Wood Duck	305	54	48	12.50	16.98	8.51
Common Starling*	300	84	67	35.00	22.64	27.66
Australian Magpie	278	87	63	52.50	45.28	51.06
Common Myna*	253	62	22	35.63	20.75	8.51
Common Blackbird*	252	85	70	53.75	56.60	42.55
Crested Pigeon	251	76	38	33.13	28.30	36.17
Sulphur-crested Cockatoo	246	113	117	28.75	30.19	27.66
Red Wattlebird	224	96	121	44.38	73.58	74.47
Pacific Black Duck	165	50	8	15.00	22.64	6.38
White-plumed Honeyeater	162	74	37	26.88	30.19	25.53
Eurasian Coot	157	0	0	6.25	0.00	0.00
Noisy Miner	154	17	53	19.38	5.66	25.53
Australian Raven	144	75	25	36.25	41.51	27.66
Willie Wagtail	141	108	31	40.00	56.60	27.66
New Holland Honeyeater	132	57	127	21.25	18.87	34.04
Eastern Rosella	124	35	29	20.00	16.98	25.53
Dusky Moorhen	92	14	0	8.13	7.55	0.00
Rainbow Lorikeet	89	5	11	11.25	3.77	8.51
Magpie-lark	88	39	17	25.00	35.85	25.53
Red-browed Finch	88	46	27	9.38	7.55	8.51
Red-rumped Parrot	87	56	22	9.38	13.21	14.89
Fairy Martin	72	35	13	3.13	5.66	4.26
Little Corella	66	17	20	8.75	3.77	4.26
Silvereye	60	4	36	10.00	5.66	14.89
Grey Shrike-thrush	59	4	3	8.75	3.77	4.26
Purple Swamphen	52	8	1	5.00	9.43	2.13
Straw-necked Ibis	47	35	25	4.38	3.77	4.26
Australian White Ibis	37	1	2	6.88	1.89	4.26
Laughing Kookaburra	35	12	8	13.13	9.43	6.38
Little Raven	35	0	1	8.75	0.00	2.13
Striated Pardalote	35	10	21	10.00	3.77	12.77
Blue-faced Honeyeater	32	15	11	12.50	9.43	10.64

Bird Species	Count			Reporting rate (%)		
	2017	2016	2015	2017	2016	2015
Rainbow Bee-eater	32	30	8	3.75	1.89	2.13
Zebra Finch	31	0	0	3.75	0.00	0.00
Little Friarbird	30	3	19	4.38	3.77	12.77
Long-billed Corella	27	41	0	3.13	3.77	0.00
Masked Lapwing	27	8	0	6.88	9.43	0.00
Spotted Dove*	26	1	6	6.25	1.89	6.38
Musk Lorikeet	23	5	37	3.75	3.77	17.02
Pied Currawong	22	4	4	1.88	3.77	2.13
Rufous Whistler	20	23	12	5.00	13.21	10.64
White-winged Chough	19	40	8	1.25	11.32	2.13
Dollarbird	16	0	3	3.13	0.00	4.26
Black Duck-Mallard hybrid	15	0	0	1.25	0.00	0.00
Brown Songlark	14	0	0	0.63	0.00	0.00
Australian Pelican	13	0	3	3.13	0.00	2.13
Black-faced Cuckoo-shrike	12	13	6	4.38	9.43	8.51
Noisy Friarbird	12	2	0	1.88	1.89	0.00
Weebill	12	32	42	1.88	11.32	12.77
Yellow-rumped Thornbill	12	2	0	1.25	1.89	0.00
Silver Gull	11	0	0	1.88	0.00	0.00
Australasian Grebe	10	2	0	0.63	3.77	0.00
Scarlet Honeyeater	10	0	0	2.50	0.00	0.00
Spotted Pardalote	10	5	8	2.50	1.89	8.51
Superb Parrot (End)	10	0	1	1.25	0.00	2.13
White-faced Heron	10	7	2	5.00	9.43	4.26
Australian Reed-Warbler	9	2	2	1.88	1.89	2.13
Grey Fantail	9	5	12	3.75	9.43	12.77
Hardhead (Vul)	9	0	0	0.63	0.00	0.00
Sacred Kingfisher	9	5	0	4.38	9.43	0.00
Australian King-Parrot	8	7	7	3.13	3.77	2.13
Little Pied Cormorant	8	2	0	3.13	1.89	0.00
White-eared Honeyeater	8	2	4	4.38	1.89	2.13
Brown Treecreeper (NT)	7	5	2	2.50	5.66	4.26
Little Black Cormorant	7	0	0	3.75	0.00	0.00
Little Wattlebird	7	16	6	1.88	9.43	4.26
Mistletoebird	7	5	8	2.50	7.55	10.64
Common Greenfinch	6	1	0	0.63	1.89	0.00
Golden Whistler	6	1	1	2.50	1.89	2.13
Grey Teal	6	54	0	1.25	3.77	0.00
Jacky Winter	6	0	0	0.63	0.00	0.00

Bird Species	Count			Reporting rate (%)		
	2017	2016	2015	2017	2016	2015
Rufous Songlark	5	12	2	1.25	5.66	2.13
Australasian Darter	4	0	0	0.63	0.00	0.00
Black-tailed Native-hen	4	0	0	0.63	0.00	0.00
European Goldfinch*	4	7	4	0.63	5.66	2.13
Peaceful Dove	4	8	2	1.88	5.66	2.13
Pied Cormorant (NT)	4	0	0	0.63	0.00	0.00
Brown Falcon	3	3	1	1.25	3.77	2.13
Brown-headed Honeyeater	3	0	0	1.25	0.00	0.00
Crested Shrike-tit	3	0	0	1.25	0.00	0.00
Crimson Rosella	3	4	5	1.25	3.77	4.26
Great Egret	3	1	0	1.25	1.89	0.00
Nankeen Kestrel	3	1	0	0.63	1.89	0.00
Yellow Thornbill	3	0	0	1.25	0.00	0.00
Black-shouldered Kite	2	3	1	1.25	3.77	2.13
Eurasian Skylark*	2	0	0	0.63	0.00	0.00
Little Grassbird	2	0	0	0.63	0.00	0.00
Rock Dove*	2	0	0	1.25	0.00	0.00
Tawny Frogmouth	2	3	1	1.25	1.89	2.13
White-breasted Woodswallow	2	0	0	0.63	0.00	0.00
White-browed Scrubwren	2	0	2	0.63	0.00	2.13
White-naped Honeyeater	2	8	11	1.25	3.77	6.38
White-throated Treecreeper	2	0	0	0.63	0.00	0.00
Yellow-billed Spoonbill	2	3	2	0.63	1.89	4.26
Yellow-faced Honeyeater	2	0	3	0.63	0.00	4.26
Yellow-tufted Honeyeater	2	0	0	0.63	0.00	0.00
Azure Kingfisher (NT)	1	1	0	0.63	1.89	0.00
Barn Owl	1	0	0	0.63	0.00	0.00
Buff-banded Rail	1	0	0	0.63	0.00	0.00
Chestnut Teal	1	14	0	0.63	5.66	0.00
Diamond Firetail (NT)	1	4	0	0.63	1.89	0.00
Domestic Duck*	1	0	0	0.63	0.00	0.00
Dusky Woodswallow	1	0	0	0.63	0.00	0.00
Great Cormorant	1	0	0	0.63	0.00	0.00
Hoary-headed Grebe	1	0	0	0.63	0.00	0.00
Little Eagle	1	0	0	0.63	0.00	0.00
Red-capped Robin	1	0	0	0.63	0.00	0.00
Singing Honeyeater	1	0	1	0.63	0.00	2.13
Southern Boobook	1	2	3	0.63	1.89	4.26
Wedge-tailed Eagle	1	1	0	0.63	1.89	0.00

Bird Species	Count			Reporting rate (%)		
	2017	2016	2015	2017	2016	2015
White-necked Heron	1	5	6	0.63	3.77	4.26
Yellow-plumed Honeyeater	1	1	2	0.63	1.89	2.13
Little Egret	0	0	1	0.00	0.00	2.13
Purple-crowned Lorikeet	0	0	1	0.00	0.00	2.13
Restless Flycatcher	0	0	1	0.00	0.00	2.13
Varied Sittella	0	0	2	0.00	0.00	2.13
Australian Shelduck	0	2	0	0.00	1.89	0.00
Brown Goshawk	0	1	0	0.00	1.89	0.00
Collared Sparrowhawk	0	1	0	0.00	1.89	0.00
Eurasian Tree Sparrow	0	15	0	0.00	1.89	0.00
Nankeen Night-Heron	0	5	0	0.00	1.89	0.00
Pied Butcherbird	0	3	0	0.00	3.77	0.00
Australasian Pipit	0	13	0	0.00	5.66	0.00

* Introduced species; End = Endangered; Vul = Vulnerable; NT = Near Threatened (Department of Sustainability and Environment, 2013; BirdLife Australia, 2016).

3. Distribution Map

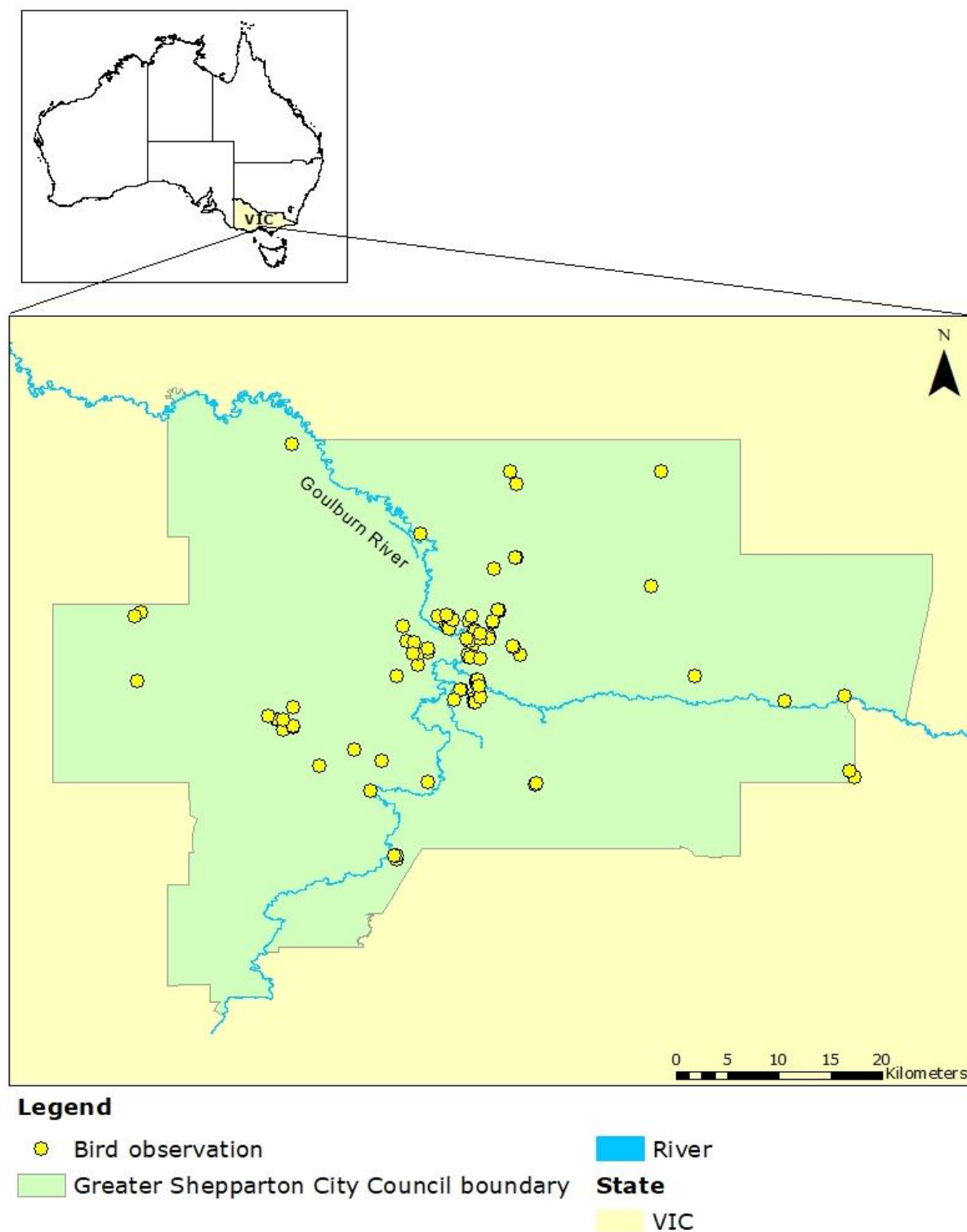


Figure 2: Bird observations recorded within the Greater Shepparton City Council boundaries during the 2017 Aussie Backyard Bird Count. Bird observations that were recorded in a single survey overlap due to having the same GPS co-ordinates. Only major rivers are depicted.

4. Species List: Least Common

The least commonly observed bird species recorded within the Greater Shepparton City Council boundaries all corresponded to one single observation and included:

- Azure Kingfisher (NT)
- Barn Owl
- Buff-banded Rail
- Chestnut Teal
- Diamond Firetail (NT)
- Domestic Duck*
- Dusky Woodswallow
- Great Cormorant
- Hoary-headed Grebe
- Little Eagle
- Red-capped Robin
- Singing Honeyeater
- Southern Boobook
- Wedge-tailed Eagle
- White-necked Heron
- Yellow-plumed Honeyeater

All but one of the 16 bird species corresponding to a single observation are native to Australia. The Domestic Duck is an introduced species across Australia and is likely only located on owner's properties. All but two species are considered to have secure populations in Victoria. The Azure Kingfisher and Diamond Firetail are both listed as being Near Threatened in Victoria (Department of Sustainability and Environment, 2013). The declining populations of these species in Victoria may account for the single observations recorded during the Aussie Backyard Bird Count.

Four of the least commonly recorded species are raptors with two, the Barn Owl and Southern Boobook, being nocturnal. Seven species are associated with water or wetland habitats. The behaviours and habitat requirements of these species may account for the single observations recorded during bird week, especially if the majority of surveys are occurring in people's backyards during daylight hours.

5. Species List: Most Common

The ten most commonly observed bird species recorded within the Greater Shepparton City Council boundaries ranged from 251 to 897 observations and included both native and introduced species (Figure 3). All ten species are considered to have secure populations within Victoria.

The most commonly detected species within the Greater Shepparton City Council, the introduced House Sparrow, was the third most commonly counted species in Victoria and the sixth most commonly counted species nationally (Appendix 1). Over double the number of House Sparrows were counted compared to the second most commonly encountered species, the Welcome Swallow which was the eighth most commonly encountered species nationally (Figure 3, Appendix 1). The Rainbow Lorikeet which was the top counted species nationally and second most commonly counted species in Victoria was not amongst the top ten bird species counted during the Aussie Backyard Bird Count within the Greater Shepparton City Council in

2017. The Australian Magpie which was the third most commonly counted species nationally and the most commonly counted species within Victoria was the seventh most commonly counted species within the Greater Shepparton City Council (Figure 3, Appendix 1). Overall, five of the most commonly detected bird species within the Greater Shepparton City Council boundaries were in the top ten most commonly recorded species nationwide (Appendix 1).

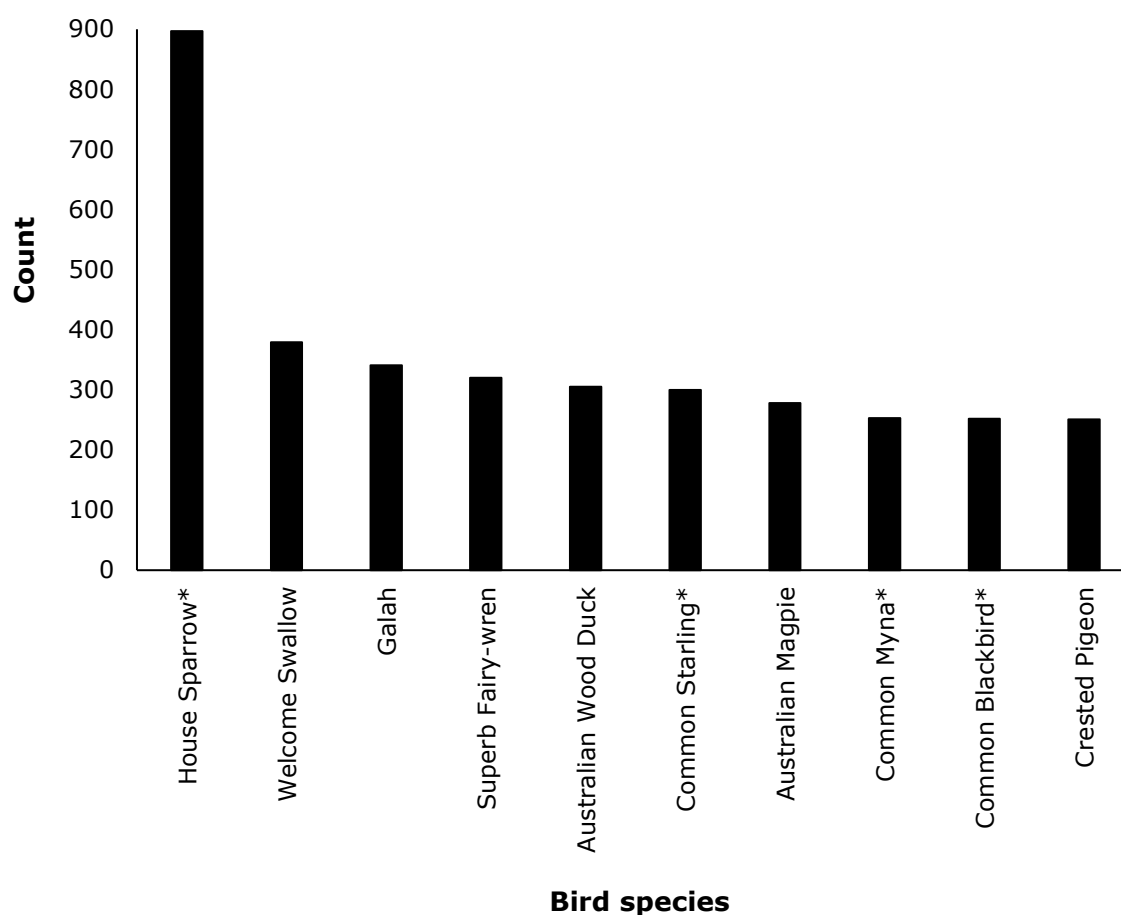


Figure 3: The ten most commonly observed bird species within the Greater Shepparton City Council boundaries during the 2017 Aussie Backyard Bird Count. * indicates introduced species.

All but one of the ten most commonly detected species recorded within the Greater Shepparton City Council boundaries had higher reporting rates compared to the Victorian and national reporting rates (Figure 4). The Australian Magpie was detected in a higher proportion of surveys within Victoria but in a lower proportion nationally. Of interest, all of the introduced bird species were recorded in higher proportions of surveys within the Greater Shepparton City Council boundaries than the species did both in Victoria and national surveys (Figure 4). The House Sparrow, Australian Magpie and Common Blackbird were detected in over half of the surveys conducted within the Greater Shepparton City Council boundaries during the 2017 Aussie Backyard Bird Count.

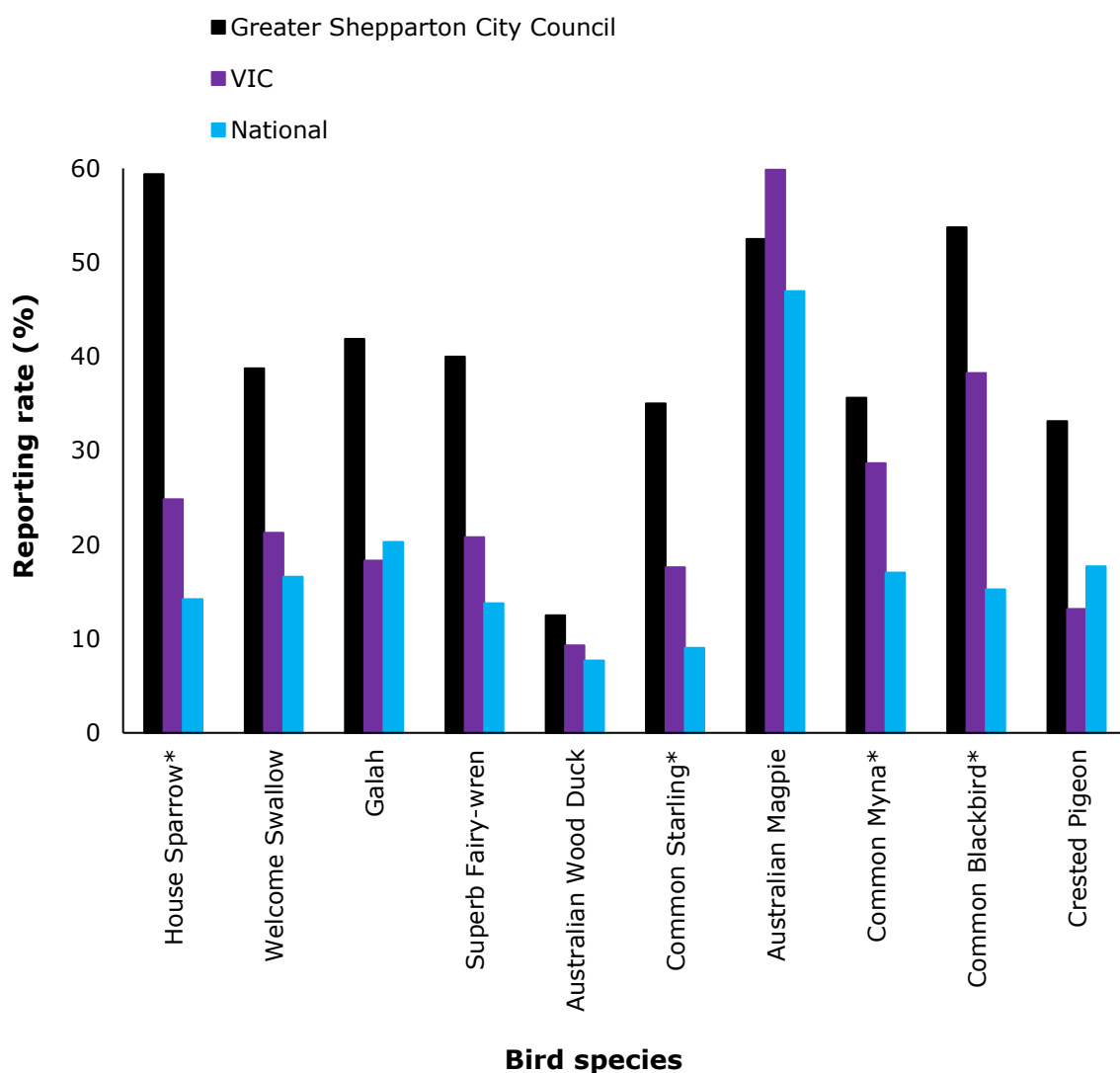


Figure 4: Comparison between the reporting rates of the ten most commonly detected species during the 2017 Aussie Backyard Bird Count within the Greater Shepparton City Council boundaries, Victoria and nationally. * indicates introduced species.

6. Introduced Species

Ten introduced bird species were observed and recorded within the Greater Shepparton City Council boundaries during the 2017 Aussie Backyard Bird Count (Table 2, Figure 5). Introduced species were observed all throughout the council's boundaries (Figures 5, 6). The majority of the recorded introduced species overlapped in their distribution, however, the Domestic Duck (Shepparton), Common Greenfinch (Shepparton East), European Goldfinch (Shepparton) and Eurasian Skylark (Shepparton) were only recorded in one survey each (Figure 5). The highest concentrations of introduced species occurred in Shepparton and Arcadia (Figure 6). The House Sparrow was the most commonly recorded introduced species within the Greater Shepparton City Council and occurred the most frequently in surveys (Table 2).

A high bird count relative to surveys conducted indicates that observers encounter multiple individuals either throughout the duration of the survey period or all together (e.g. in a flock; Table 2).

Table 2: Survey statistics for the introduced bird species recorded within the Greater Shepparton City Council boundaries during the 2017 Aussie Backyard Bird Count.

Species	Bird Count	Proportion of total count (%)	Number of surveys detected in	Reporting rate (%)
House Sparrow	897	13.15	95	59.38
Common Starling	300	4.40	56	35.00
Common Myna	253	3.71	57	35.63
Common Blackbird	252	3.69	86	53.75
Spotted Dove	26	0.38	10	6.25
Common Greenfinch	6	0.09	1	0.63
European Goldfinch	4	0.06	1	0.63
Eurasian Skylark	2	0.03	1	0.63
Rock Dove	2	0.03	2	1.25
Domestic Duck	1	0.01	1	0.63

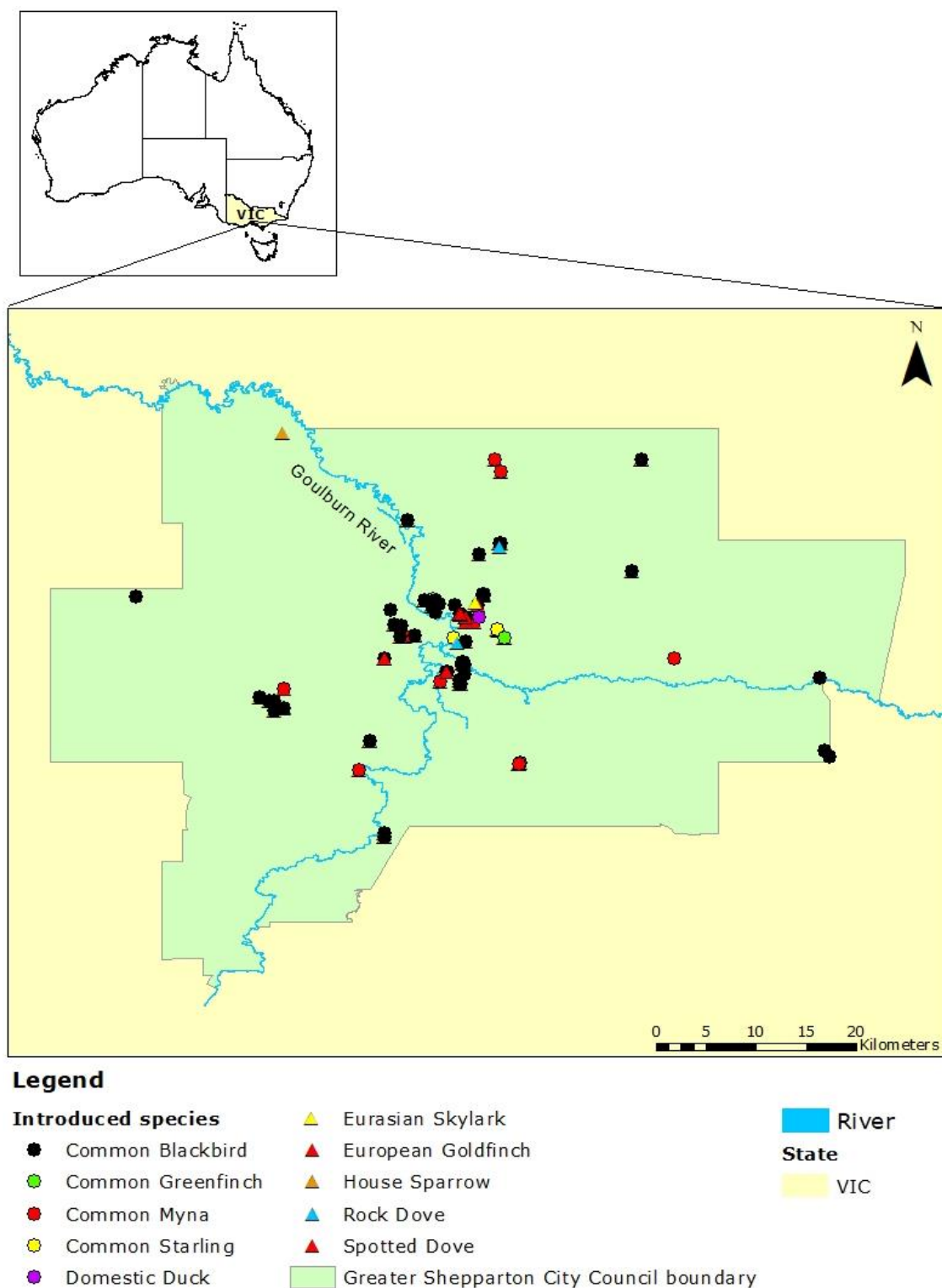
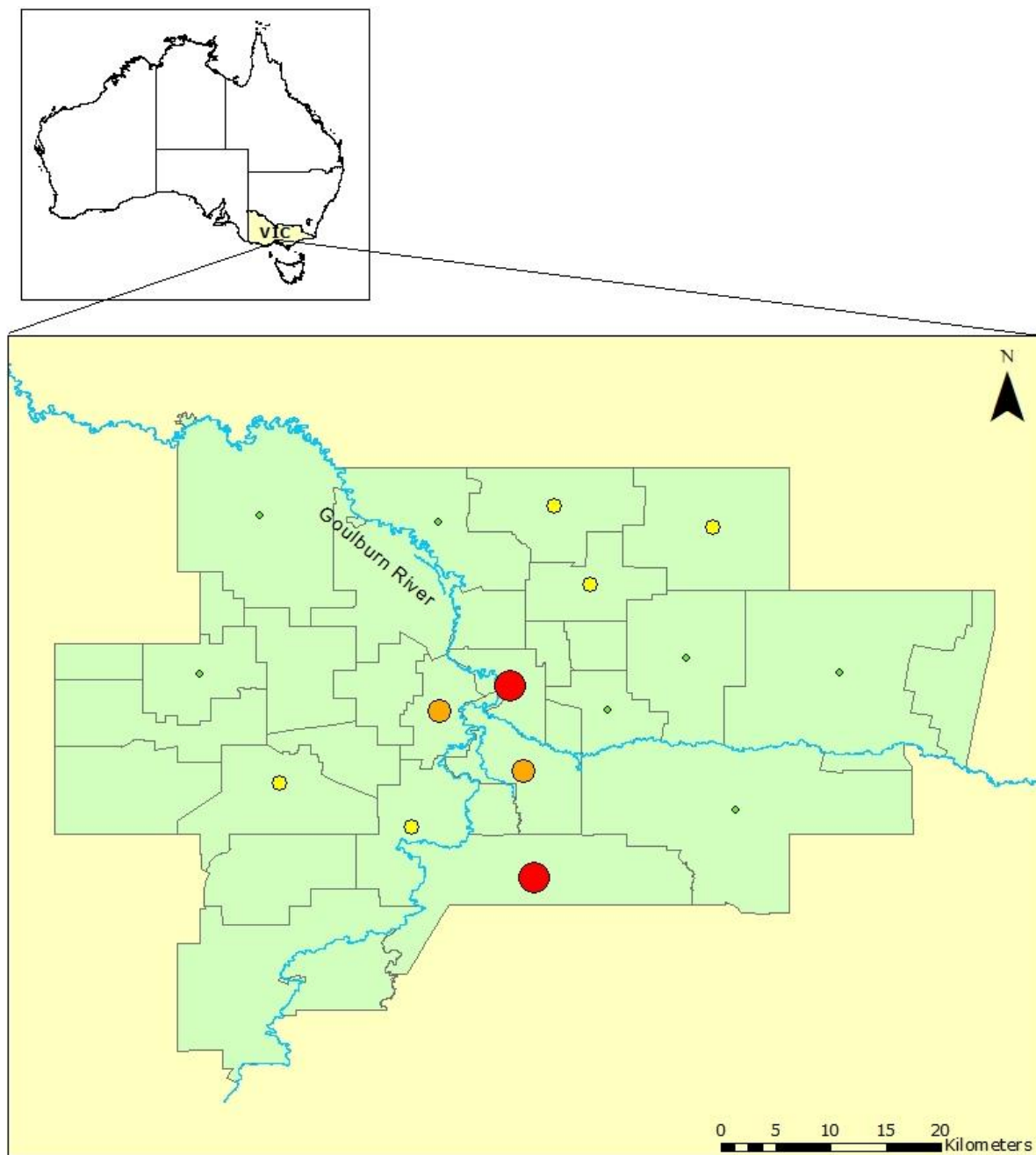


Figure 5: Distribution of the introduced bird species recorded within the Greater Shepparton City Council boundaries during the 2017 Aussie Backyard Bird Count. Bird observations that were recorded in a single survey overlap due to having the same GPS co-ordinates. Only major rivers are depicted.



Legend

Number

◆ 1 - 50

● 51 - 150

● 151 - 250

● 251 - 500

Greater Shepparton City Council boundary

River

State

VIC

Figure 6: Number of introduced birds recorded per suburb within the Greater Shepparton City Council boundaries during the 2017 Aussie Backyard Bird Count.

7. Native Species of Management Concern

Since European settlement, over 80% of Australia's temperate woodlands have been cleared resulting in many woodland-dependent bird species experiencing population declines resulting in species becoming threatened (BirdLife Australia, 2015). The temperate south-eastern regions of Australia have experienced the largest number of woodland species declines. In response to the documented declines in woodland bird species, BirdLife Australia has implemented the *Woodland Birds for Biodiversity Project* to enhance the conservation of declining and threatened woodland bird species. This project builds on the recovery efforts of the Critically Endangered Regent Honeyeater which has been the focus of long-term intensive recovery initiatives by BirdLife Australia and due to their high profile, act as a flagship species for the conservation of other threatened woodland bird species. The *Woodland Birds for Biodiversity Project* aims to:

- Monitor habitat restoration activities and bird populations to determine priority habitat sites and population trends
- Identify and monitor climate change impacts on woodland habitat and woodland-dependent bird species
- Improve the management and protection of woodland habitat on private and public land
- Restoration and revegetation of areas to improve the amount of available habitat and connectivity of this habitat
- Community education and involvement in survey efforts and monitoring

Two near threatened woodland bird species were detected within the Greater Shepparton City Council boundaries during the 2017 Aussie Backyard Bird Count (Figure 7):

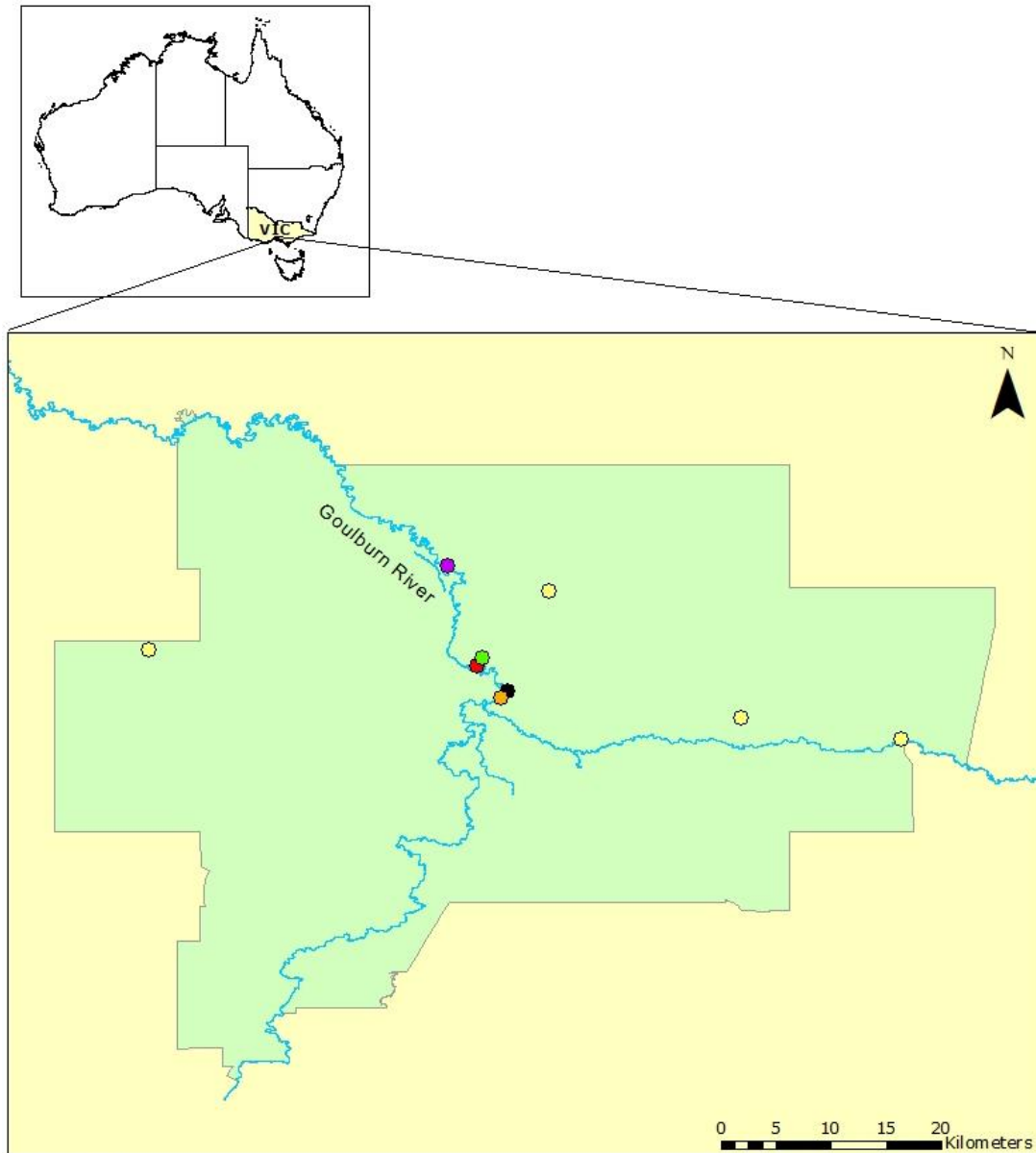
- Brown Treecreeper: seven birds were recorded in four surveys by four registered users located in Congupna, Dookie (2 surveys) and Merrigum
- Diamond Firetail: one individual was counted in Bunbartha

Numerous species of Australian parrots are threatened in Australia. Across Australia, each species of parrot faces its own set of conservation challenges. However, the majority of parrot species are experiencing population declines due to the lack of suitable nesting sites, particularly tree hollows which parrots are dependent on especially for successful breeding, and reliable food access. Habitat loss and modification is decreasing the number of tree hollows available for threatened parrot species to nest in and the hollows that do remain are fiercely competed over which are won and subsequently used by the more aggressive bird species (e.g. Crimson Rosellas, Galahs, Starlings) and marsupials (BirdLife Australia, 2015). Without a suitably sized tree hollow, parrots are unable to breed during the breeding season.

One threatened parrot species was detected within the Greater Shepparton City Council boundaries during the 2017 Aussie Backyard Bird Count. The Superb Parrot, listed as Endangered in Victoria (Department of Sustainability and Environment, 2013), was detected in two surveys by one registered user in Shepparton (Figure 7).

Numerous Australian water birds or species associated with wetland habitats are also threatened due to the continual loss and degradation of wetlands through practices such as water diversion, river regulation, clearing of land and changes in salinity (BirdLife Australia, 2015). Threatened water bird species detected within the Greater Shepparton City Council boundaries during the 2017 Aussie Backyard Bird Count (Figure 7) included:

- Hardhead (Vulnerable) – nine birds were recorded in one survey in Kialla
- Pied Cormorant (Near Threatened) – four birds were counted in one survey in Kialla
- Azure Kingfisher (Near Threatened) – one individual was detected in one survey in Shepparton



Legend

Threatened species

- Azure Kingfisher (NT)
- Brown Treecreeper (NT)
- Diamond Firetail (NT)
- Hardhead (Vul)
- Pied Cormorant (NT)
- Superb Parrot (End)

Greater Shepparton City Council boundary

River

State

VIC

Figure 7: Distribution of the Endangered (End), Vulnerable (Vul) and Near Threatened (NT) bird species within the Greater Shepparton City Council boundaries during the 2017 Aussie Backyard Bird Count. Bird observations that were recorded in a single survey overlap due to having the same GPS co-ordinates. Only major rivers are depicted.

8. Species-specific results

8.1 Superb Fairy-wren

Three hundred and twenty Superb Fairy-wrens were counted within the Greater Shepparton City Council boundaries during the 2017 Aussie Backyard Bird Count making them the 4th most frequently encountered bird species in the region. Superb Fairy-wrens were detected in 64 surveys by 35 registered users (Figures 8, 9). The total number observed was higher than the number recorded in the 2015 and 2016 Aussie Backyard Bird Counts (Figure 8).

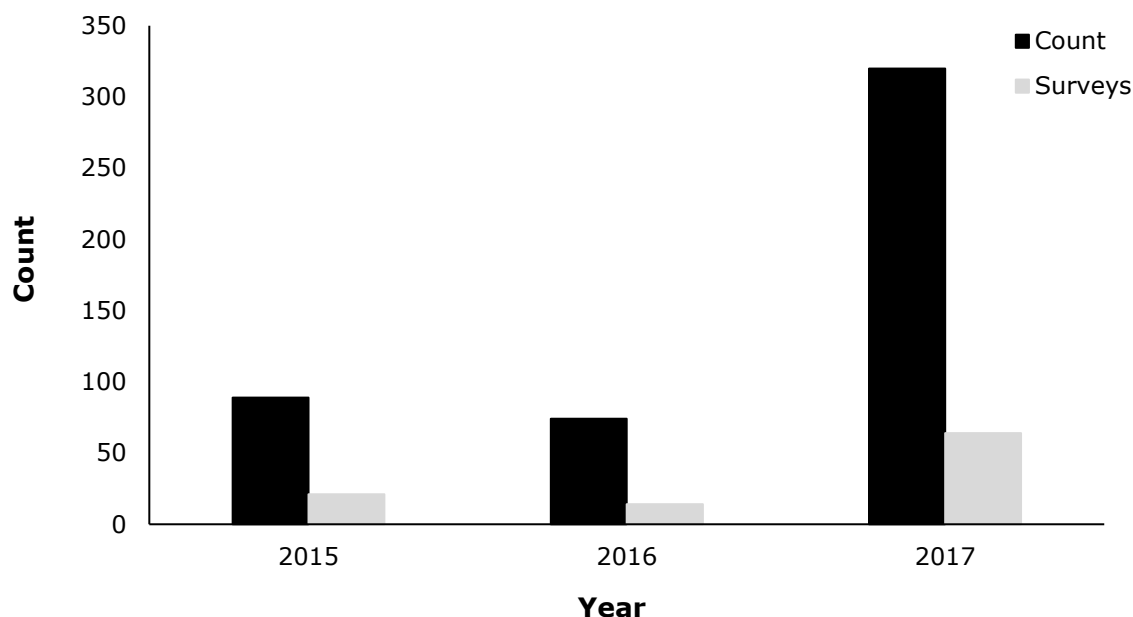


Figure 8: Comparison of the number of Superb Fairy-wrens counted and the number of surveys Superb Fairy-wrens were detected in over the last three Aussie Backyard Bird Counts.

Superb Fairy-wrens were observed throughout the Council's LGA (Figure 9). The highest numbers of Superb Fairy-wrens were observed in Arcadia (59 birds, 13 surveys) and Shepparton (54 birds, 15 surveys; Figure 9). Superb Fairy-wrens were also observed in Toolamba (38 birds, 7 surveys), Bunbartha (28 birds, 3 surveys), Kyabram (28 birds, 3 surveys), Tatura (27 birds, 3 surveys), Dookie (22 birds, 4 surveys), Undera (20 birds, 1 survey), Mooroopna (18 birds, 7 surveys), Pine Lodge (10 birds, 1 survey), Kialla (7 birds, 4 surveys), Kialla East (6 birds, 2 surveys) and Merrigum (3 birds, 1 survey; Figure 9). The highest number of individuals recorded in one survey was 22 birds.

The reporting rate of Superb Fairy-wrens within the Greater Shepparton City Council boundaries was 40.00% with multiple birds being recorded in the majority of surveys that included Superb Fairy-wrens (Table 1). This was higher than the reporting rate for the species in 2016 (26.42%) but lower than in 2015 (44.68%). The 2017 reporting rate is higher than the Victorian reporting rate for the species (20.78%) which can indicate that they were observed in a higher proportion of surveys throughout the Greater Shepparton City Council.

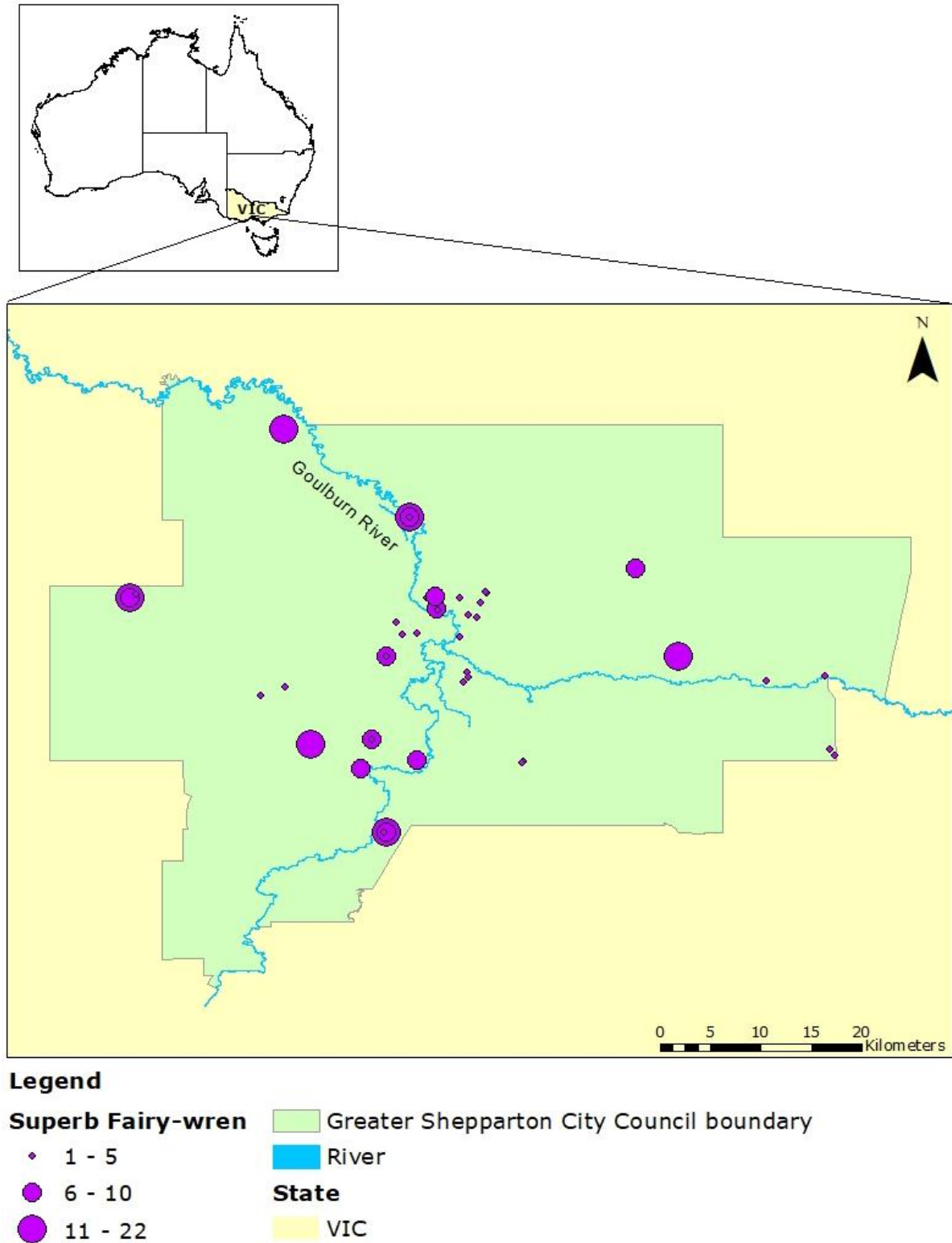


Figure 9: Distribution of Superb Fairy-wrens within the Greater Shepparton City Council boundaries during the 2017 Aussie Backyard Bird Count. Bird observations that were recorded in a single survey overlap due to having the same GPS co-ordinates.

8.2 Noisy Miner

One hundred and fifty-four Noisy Miners were counted within the Greater Shepparton City Council boundaries during the 2017 Aussie Backyard Bird Count making them the 16th most frequently encountered bird species in the region. Noisy Miners were detected in 31 surveys by 22 registered users (Figures 10, 11). The total number observed was significantly higher than the number recorded in the 2015 and 2016 Aussie Backyard Bird Counts (Figure 10).

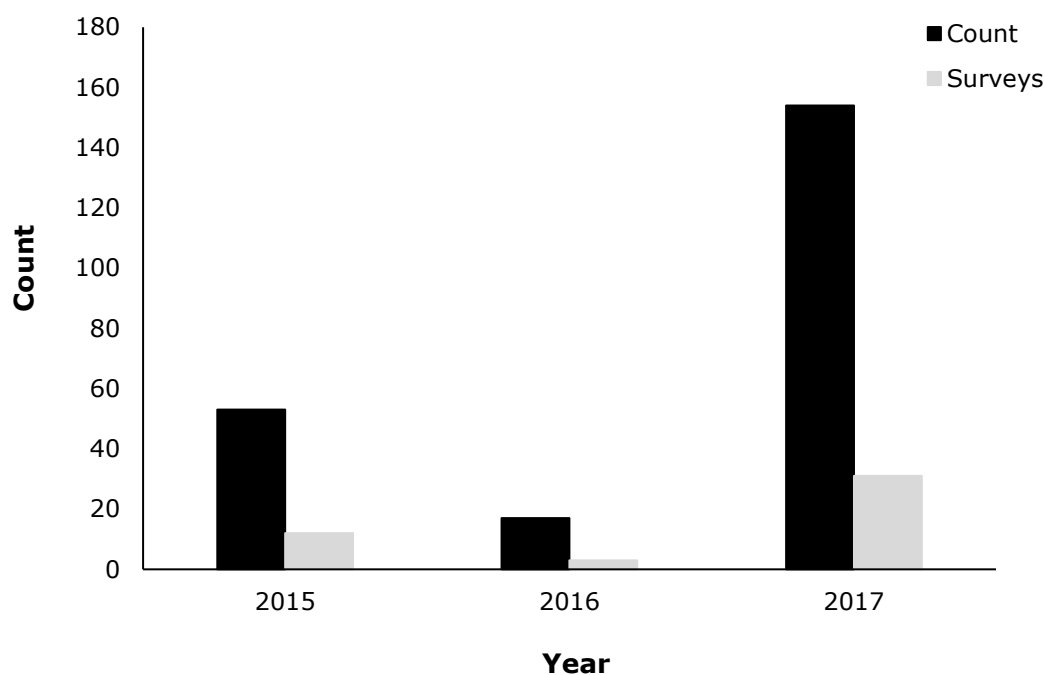
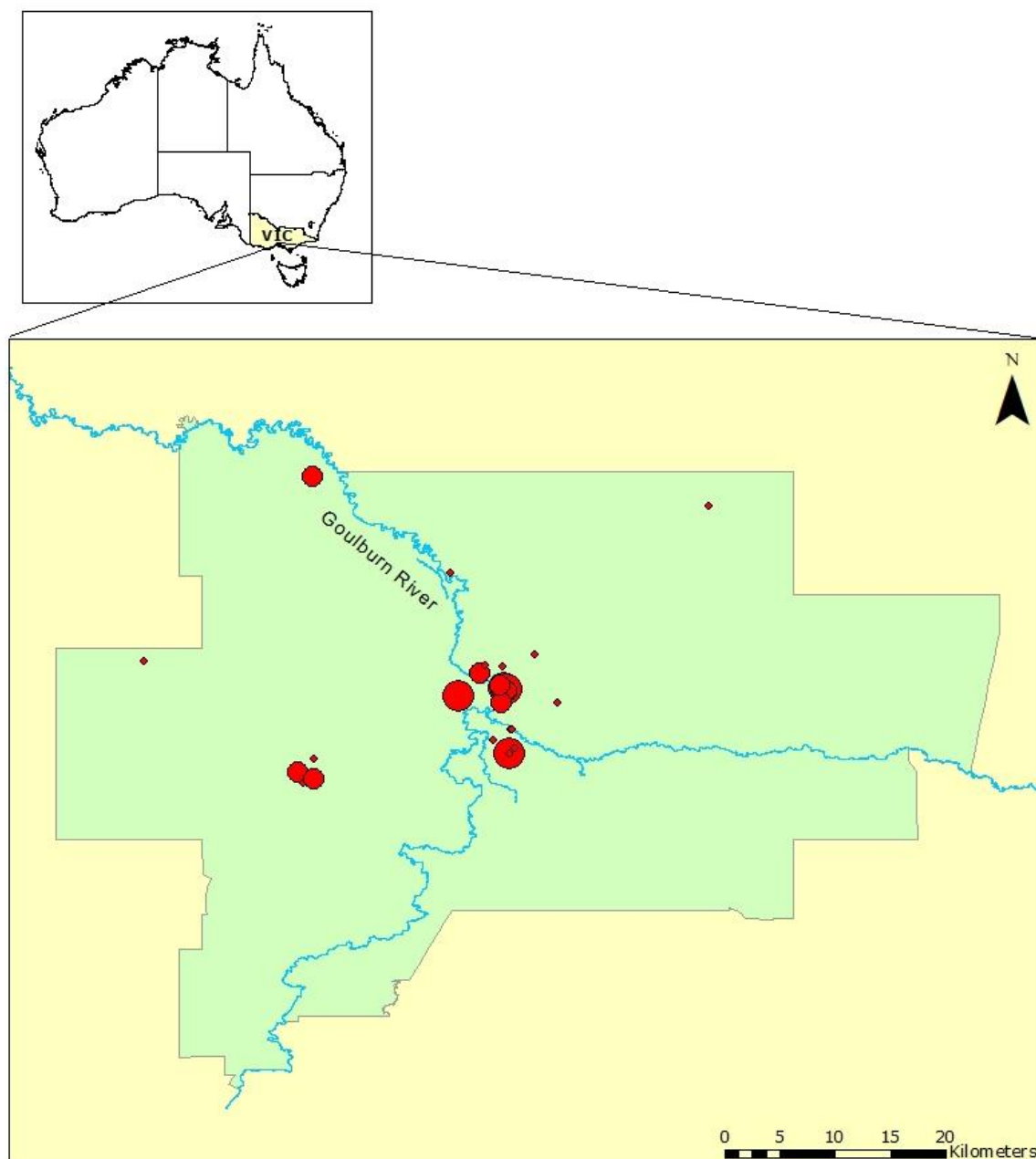


Figure 10: Comparison of the number of Noisy Miners counted and the number of surveys Noisy Miners were detected in over the last three Aussie Backyard Bird Counts.

Noisy Miners were largely observed throughout the central region of the council's LGA (Figure 11). The highest numbers of Noisy Miners were observed in Shepparton (68 birds, 12 surveys) (Figure 11). Noisy Miners were also observed in Kialla (29 birds, 7 surveys), Tatura (20 birds, 4 surveys), Mooroopna (17 birds, 1 survey), Undera (10 birds, 1 survey), Kyabram (6 birds, 3 surveys), Shepparton East (2 birds, 1 survey), Bunbartha (1 bird) and Katandra West (1 bird, Figure 11). The highest number of individuals recorded in one survey was 20 birds.

The reporting rate of Noisy Miners within the Greater Shepparton City Council boundaries was 19.38% with multiple birds being recorded in the majority of surveys that included Noisy Miners (Table 1). This was higher than the reporting rate for the species in 2016 (5.66%) but lower than in 2015 (25.53%). The 2017 reporting rate is lower than the Victorian reporting rate for the species (24.32%) which can indicate that they were observed in a higher proportion of surveys throughout Victoria.



Legend

Noisy Miner	 Greater Shepparton City Council boundary
 1 - 5	 River
 6 - 10	State
 11 - 20	 VIC

Figure 11: Distribution of Noisy Miners within the Greater Shepparton City Council boundaries during the 2017 Aussie Backyard Bird Count. Bird observations that were recorded in a single survey overlap due to having the same GPS co-ordinates.

8.3 Laughing Kookaburra

Thirty-five Laughing Kookaburras were counted within the Greater Shepparton City Council boundaries during the 2017 Aussie Backyard Bird Count making them the 33rd most frequently encountered bird species in the region. Laughing Kookaburras were detected in 21 surveys by 19 registered users (Figures 12, 13). The total number observed was significantly higher than the number recorded in the 2015 and 2016 Aussie Backyard Bird Counts (Figure 12).

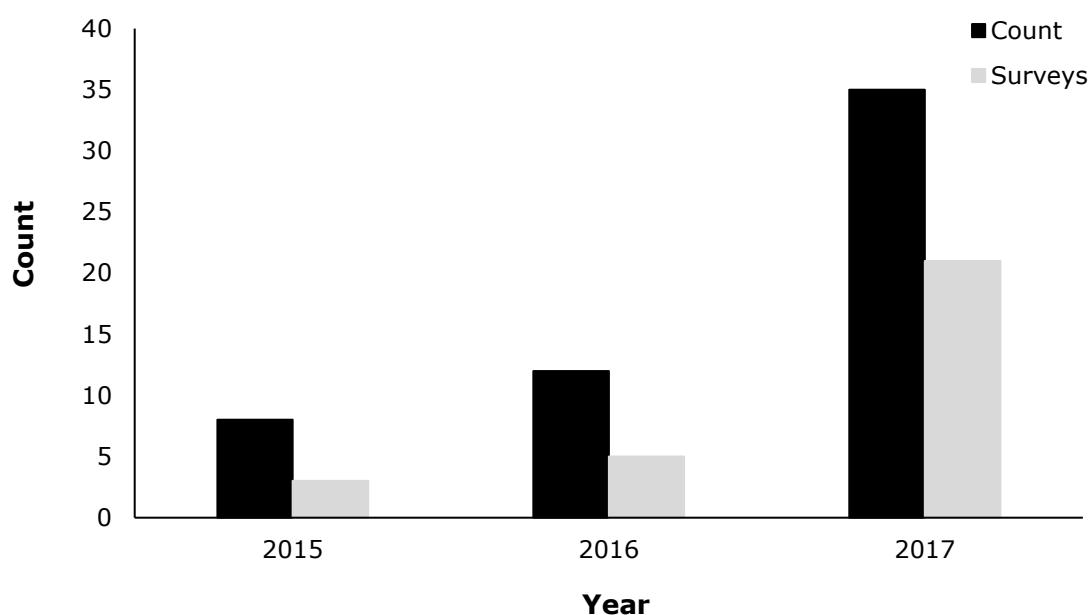


Figure 12: Comparison of the number of Laughing Kookaburras counted and the number of surveys Laughing Kookaburras were detected in over the last three Aussie Backyard Bird Counts.

Laughing Kookaburras were largely observed throughout the central region of the council's LGA (Figure 13). The highest numbers of Laughing Kookaburras were observed in Arcadia (9 birds, 5 surveys) and Shepparton (9 birds, 6 surveys; Figure 13). Laughing kookaburras were also observed in Toolamba (5 birds, 2 surveys), Mooroopna (3 birds, 2 surveys), Bunbartha (2 birds, 1 survey), Congupna (1 bird), Kialla (1 bird) and Tatura (1 bird; Figure 13). The highest number of individuals recorded in one survey was three.

The reporting rate of Laughing Kookaburras within the Greater Shepparton City Council boundaries was 13.13% with multiple birds being recorded in about half of the surveys which included Laughing Kookaburras (Table 1). This was higher than the reporting rate for the species in both the 2016 (9.43%) and 2015 (6.38%) Aussie Backyard Bird Counts. The 2017 reporting rate is also higher than the Victorian reporting rate for the species (12.24%) which can indicate that they were observed in a higher proportion of surveys throughout the Council's LGA.

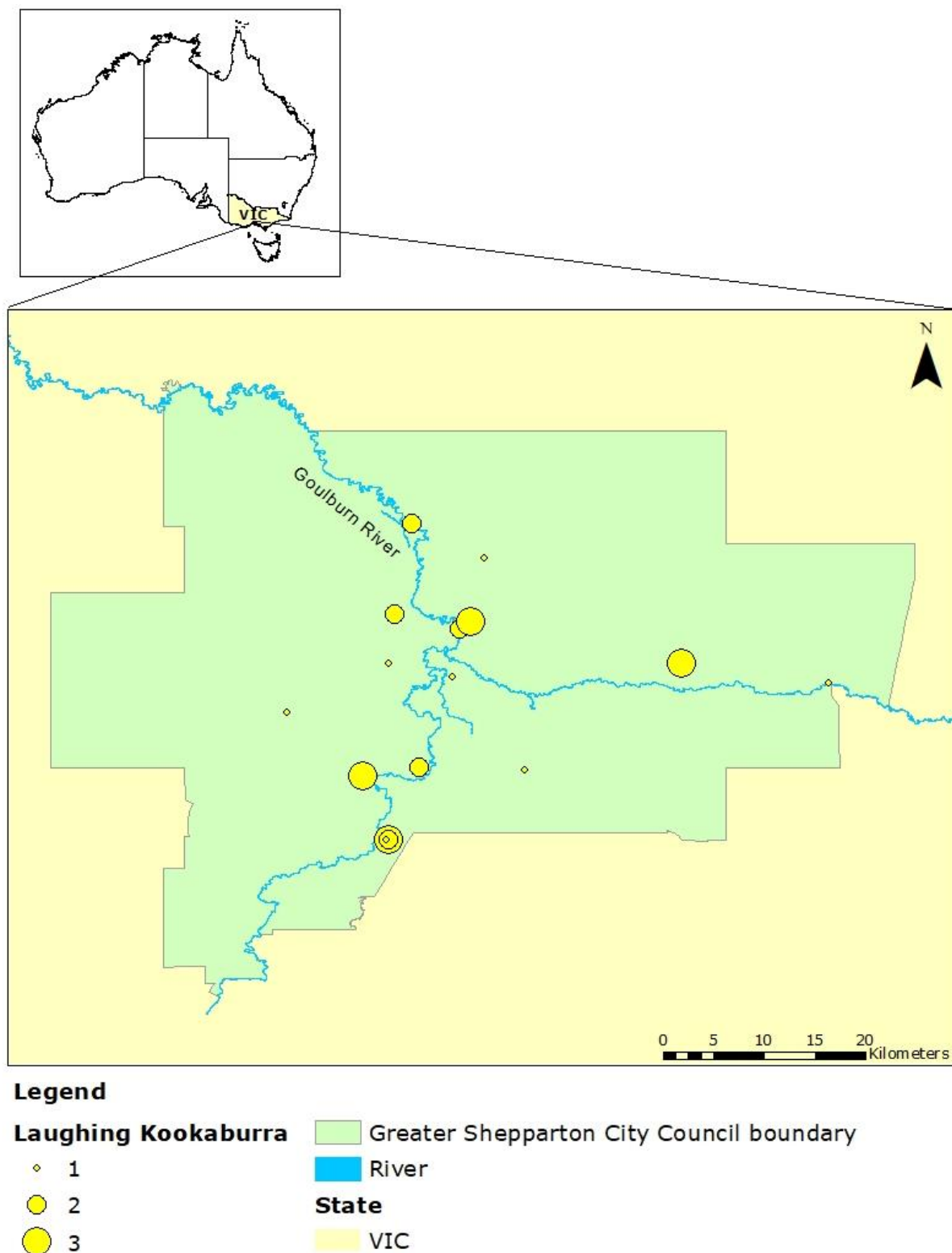


Figure 12: Distribution of Laughing Kookaburras within the Greater Shepparton City Council boundaries during the 2017 Aussie Backyard Bird Count. Bird observations that were recorded in a single survey overlap due to having the same GPS co-ordinates.

9. Data Limitations

An annual backyard bird survey occurring in gardens across Australia has the potential to be an extremely valuable monitoring tool for Australian bird species and communities. Over years, data collected from regions can be used to detect population trends for target species (both native and introduced), for different species guilds and for bird communities within specific areas. For example, detection of regional and/or national changes in the abundance and distribution of species especially those of management concern, such as downward trends of native species, or upward trends of pest species. Subsequent management actions can therefore be implemented in response to the survey results.

However, some caution must be taken when interpreting the results from such a survey. The backyards that are surveyed will not constitute a random selection of backyards across Australia. Previous analyses of surveys of a similar nature have suggested that participants are more likely to be interested in birds and have more 'bird-friendly' gardens than the country as a whole (Dunn et al., 2005; Spurr, 2012). If this is correct, the number of birds reported from surveyed backyards could be higher than the average number present within a typical Australian backyard. Additionally, bird species that are more likely to utilise habitat associated with backyard gardens are more likely to be recorded, thus represented, in the dataset than species that are specialised to other habitat types such as forests or water bodies. The lack of presence of these species within the dataset does not imply low abundance or scarce distribution but rather their specific habitat was not represented in the survey.

The number of counted birds may also be over-inflated due to the potential for observers to count the same bird/s multiple times during their 20-minute survey period. Furthermore, some regions may have small sample sizes, with some areas being under-represented (or not represented at all) which will influence data interpretation and population trends within an area and across the country. Survey results are also subject to temporal biases and only provide information of bird communities within a one-week period during spring. Hence, the Aussie Backyard Bird Count survey can be said to monitor population and distribution trends within the backyards of participants during the particular time period but results may not necessarily be applicable to Australia as a whole, or to the entire region specifically being analysed.

Furthermore, the GPS co-ordinates of surveys may not be completely accurate due to numerous factors. User error may occur when selecting their location through the app, as the placement of the survey flag may not precisely fall on their true location. However, the submitted co-ordinates will provide the general location where the survey occurred. Excluding user error, the accuracy of the GPS coordinates should fall within 5-50 metres as the app waits for up to 20 seconds to obtain an accurate GPS fix. If a GPS fix can't be found within this time, less accurate coordinates may be recorded. Being indoors, near tall buildings and heavy cloud cover can all lead to obtaining a poor GPS fix, or no GPS at all. Having Wi-Fi on and being near a Wi-Fi hotspot can give a fast, accurate result in the majority of cases, but occasionally this can also result in a wildly inaccurate point in the case of a moving Wi-Fi hotspot. Most of the time this is not a problem or will be picked up by the user when they are looking at the map. If the app can't get a GPS fix and can't use Wi-Fi then it will fall back to using mobile towers, which can reduce accuracy to 1 km or even worse. The accuracy when submitting surveys on the website is much less predictable than the app. Most computers do not have a GPS so have to rely on either Wi-Fi or the IP address. Wi-Fi can be quite accurate, but IP address-based locations are very rough – it basically just identifies which city you live in. If you are in a rural area sometimes it will just put you in the nearest major city/centre.

The skill and experience of observers conducting backyard surveys in correctly identifying birds will vary and also influence the validity of the survey results. The ABBC app provided the first instance of minimising incorrect species identifications by clearly indicating to the user if a species that they had selected to include on their checklist was “unlikely based on survey location”. Once the survey data was collected in the BirdLife Australia office, data was further vetted based on species distribution information. While every effort was undertaken to vet the survey data of mis-identified birds, it is still probable that some mis-identifications will be included in the dataset and caution is needed when analysing the results. However, a previous study has implied that identification of species occurring in participants backyards are more likely to be correct as these species are familiar to the observer and are likely to be relatively common species (Cannon, 1999).

10. What Birds in Backyards (BIBY) Can Offer

We are fortunate in Australia to have such a diverse and colourful range of native birds that live amongst us in the urban landscape. These birds provide an opportunity for people to appreciate and connect with wildlife on a daily basis and increasingly, research is linking biodiversity with a person’s quality of life. In Britain, bird life is so valued that the UK government uses information about their wild birds as a measure of the health of the environment as a whole. This environmental indicator is published alongside more familiar economic and social indicators and reinforces the point that the maintenance of biodiversity is a key part of sustainability.

But our urban bird communities in Australia are changing. Small birds, like Spinebills and Fairy-wrens, were once more common in parks or gardens are now disappearing and being replaced by large and aggressive species like the Noisy Miner and Pied Currawong. Changes in our gardening practices and increasing urbanisation seem to be largely responsible for this – the simplification of our gardens and the loss of shrubs has removed important food, shelter and nesting locations. If vegetation in gardens could be managed to promote a diversity of native bird species, it will provide a valuable secondary habitat for conserving native bird populations, particularly as natural habitat continues to be destroyed. In the urban landscape, engaging with the wider community is necessary in order to turn around this habitat loss and provides a unique opportunity to engage large numbers of the general community actively in the conservation of biodiversity.

Birds in Backyards (BIBY) encourages people to learn in their own space in order to establish an initial connection with the natural world in a somewhat unnatural setting. It is not simply about providing people with information about birds in their local area but it is about building on that initial interest and encouraging people to learn more and then take action for birds. Our program takes a three-pronged approach: LEARN about Aussie birds, PARTICIPATE in surveying, and CREATE habitat and change.

BIBY can work with your council to provide resources or collaborate on projects. For example:

- Hard copy materials such as A4 Backyard Birds of... posters (that can be made available in 6 languages), bookmarks, bird trading cards, gardening advice brochures
- Train the trainer workshops and associated materials or direct public workshops
- Evaluations
- Regional plant lists

And new in 2018:

- Ongoing monitoring programs for participants via our surveys on BirdLife Australia's new data portal, Birddata (<http://birddata.birdlife.org.au/>), with feedback provided after seasonal surveys (four times a year)
- Children's engagement activities and school resources – ask us about our Birds in Schools programs. Options available from fully supported to teacher-delivered
- And in development are exciting new online modules that will guide participants through the BIBY program, from getting to know your own neighbourhood and its feathered friends, through to monitoring and taking action at home, school, or work.

For more information, please contact Birds in Backyards Program Manager Dr. Holly Parsons – holly.parsons@birdlife.org.au.

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12. Appendix 1 – 2017 ABBC Results



birds are in our nature


72,421 people participated 61,418 (2016)
42,298 (2015)
60,592 CHECKLISTS submitted  45,411 (2016)
31,096 (2015)

TOP 10 BIRDS

COUNTED AUSTRALIA WIDE



1 RAINBOW LORIKEET





Next year's Aussie Backyard Bird Count will be held
22-28 OCTOBER 2018

