Aussie Backyard Bird Count 2018 Results:

Greater Shepparton City Council

Emu + Add-on Package

birds are in our nature

Aussie Backyard BIRD COUNT

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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 90% 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 continues to increase each year the Aussie Backyard Bird Count is run, with the number of birds counted also significantly increasing each year. Additionally, involvement by local councils increases year-on-year with more bird-focused events being held during Bird Week, improving the awareness and importance of local birds within their communities. And with the release of lesson plans which encourages students to participate both at school and at home, the number of schools participating in the Aussie Backyard Bird Count continues to grow.

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 five 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 Australian 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 celebrated 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 they enjoy them – home, school, work, or local parks and reserves. There have been exciting changes recently - a new framework and program objectives are seeing BIBY work with stakeholders towards an Urban Bird Conservation Action Plan – a tool to develop focussed strategies and projects to conserve Australia's urban birds and measure our success. In 2017, our surveys joined BirdLife Australia's data portal Birdata and have now joined the Birdata App as well. 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. 2016-2018 Aussie Backyard Bird Count Statistics

The following statistics relate to the Greater Shepparton City Council region during the Aussie Backyard Bird Counts that ran from the 17th to 23rd October 2016, 23rd to 29th October 2017 and 22nd to 28th October 2018:

- 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)

  2018: 107 observers participated in the bird count, submitting 242 checklists (Figure 1)

- 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)

  2018: Submitted checklists ranged from between 1 and 12 per registered user (average of 2.7 per registered user)

- 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

  2018: The combined duration that observers surveyed over was 73 hours and 29 minutes

- 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

  2018: The number of birds recorded ranged from 8 to 530 per registered user, with an average of 104 birds recorded per registered user

- 2016: A total of 2,431 individual birds were observed and recorded during bird week (Table 1)

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

  2018: A total of 9,321 individual birds were observed and recorded during bird week (Table 1, Figure 2)

- 2016: 87 bird species were recorded (Table 1)

  2017: 116 bird species were recorded (Table 1)

  2018: 124 bird species were recorded (Table 1)

- 31 bird species detected in the 2018 Aussie Backyard Bird Count were not detected in either the 2017 or 2016 Aussie Backyard Bird Counts. Eighteen species were detected in 2017 that were not detected in either 2018 or 2016. Five species were only detected in 2016 within the Greater Shepparton City Council boundaries (Table 1).
- 2016: The reporting rate for species (percentage of surveys a species was detected in) ranged from 1.89% to 73.58% (Table 1).

  2017: The reporting rate for species ranged from 0.63% to 59.38% (Table 1).

  2018: The reporting rate for species ranged from 0.41% to 63.63% (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).
- 28 registered schools (kindergarten to high school) participated in the Aussie Backyard Bird Count within Victoria which comprised of 279 participants submitting 86 checklists totalling 2,954 birds counted representing 103 bird species

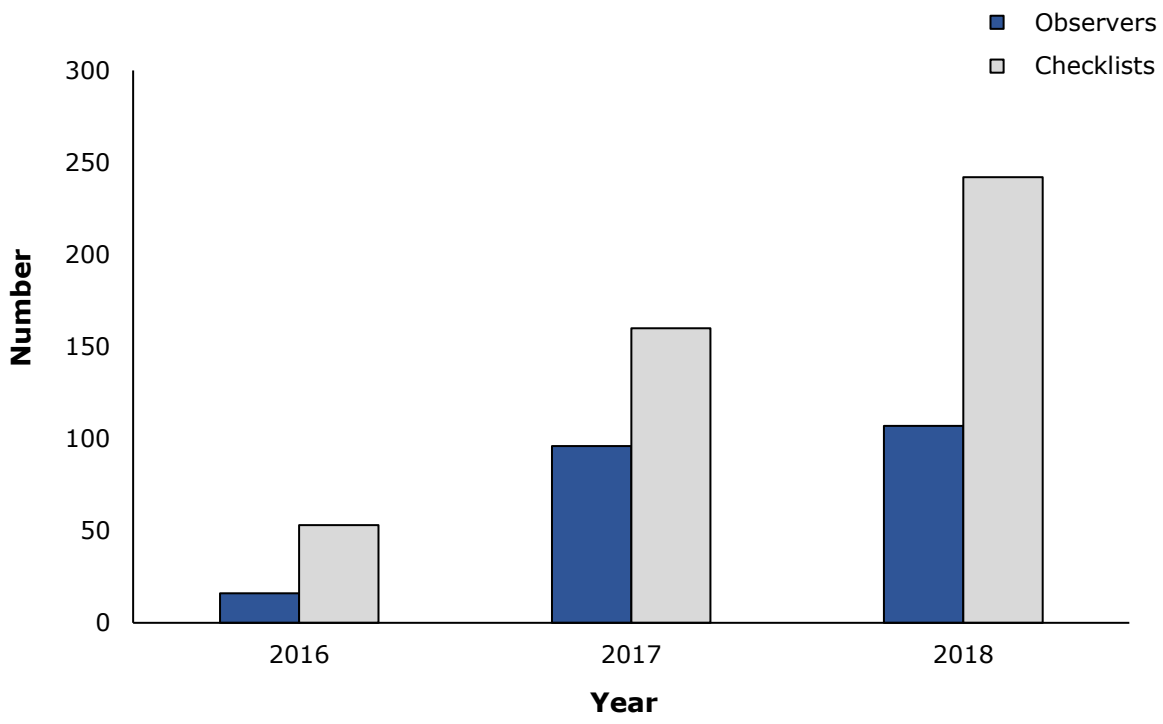


Figure 1: Comparison of the number of observers and number of checklists submitted within the Greater Shepparton City Council boundaries during the Aussie Backyard Bird Count over the last three years (2016-2018).

Table 1: The complete species list, number of individuals observed and reporting rate within the Greater Shepparton City Council boundaries during the 2018 Aussie Backyard Bird Count.

Bird Species	Count			Reporting rate (%)		
	2016	2017	2018	2016	2017	2018
House Sparrow*	282	897	1501	49.06	59.38	63.64
Galah	94	341	664	24.53	41.88	46.28
Welcome Swallow	163	379	446	43.40	38.75	30.58
Australian Magpie	87	278	437	45.28	52.50	59.50
Common Blackbird*	85	252	427	56.60	53.75	59.92
Sulphur-crested Cockatoo	113	246	422	30.19	28.75	32.64
Common Starling*	84	300	339	22.64	35.00	26.45
Straw-necked Ibis	35	47	326	3.77	4.38	7.85
Crested Pigeon	76	251	314	28.30	33.13	42.15
Red Wattlebird	96	224	285	73.58	44.38	40.91
Superb Fairy-wren	74	320	270	26.42	40.00	30.58
White-plumed Honeyeater	74	162	253	30.19	26.88	23.14
Common Myna*	62	253	239	20.75	35.63	23.97
Australian Raven	75	144	220	41.51	36.25	31.82
Eurasian Coot	0	157	202	0.00	6.25	2.48
Red-rumped Parrot	56	87	201	13.21	9.38	15.29
Pacific Black Duck	50	165	197	22.64	15.00	11.98
Rainbow Lorikeet	5	89	178	3.77	11.25	16.94
Noisy Miner	17	154	170	5.66	19.38	16.53
Little Corella	17	66	159	3.77	8.75	6.61
Willie Wagtail	108	141	139	56.60	40.00	29.34
Australian Wood Duck	54	305	134	16.98	12.50	9.50
New Holland Honeyeater	57	132	118	18.87	21.25	14.46
Eastern Rosella	35	124	107	16.98	20.00	19.83
Magpie-lark	39	88	104	35.85	25.00	25.62
Long-billed Corella	41	27	73	3.77	3.13	2.89
Australian White Ibis	1	37	72	1.89	6.88	6.20
Musk Lorikeet	5	23	70	3.77	3.75	6.61
Australian King-Parrot	7	8	69	3.77	3.13	10.74
Dusky Moorhen	14	92	69	7.55	8.13	2.07
Spotted Dove*	1	26	65	1.89	6.25	9.50
Red-browed Finch	46	88	61	7.55	9.38	2.89
Little Wattlebird	16	7	59	9.43	1.88	9.50
Purple Swamphen	8	52	59	9.43	5.00	6.20
Silvereye	4	60	55	5.66	10.00	4.96
Laughing Kookaburra	12	35	54	9.43	13.13	9.92

Bird Species	Count			Reporting rate (%)		
	2016	2017	2018	2016	2017	2018
Blue-faced Honeyeater	0	0	43	0.00	0.00	8.68
Fuscous Honeyeater	0	0	41	0.00	0.00	4.55
Black-faced Cuckoo-shrike	13	12	40	9.43	4.38	7.02
Little Raven	0	35	40	0.00	8.75	7.85
Australian Pelican	0	13	37	0.00	3.13	4.13
Crimson Rosella	4	3	32	3.77	1.25	5.37
Zebra Finch	0	31	29	0.00	3.75	2.89
Dusky Woodswallow	0	1	25	0.00	0.63	2.89
Rainbow Bee-eater	30	32	23	1.89	3.75	1.65
Masked Lapwing	8	27	20	9.43	6.88	3.72
Grey Fantail	5	9	19	9.43	3.75	2.89
Little Friarbird	3	30	18	3.77	4.38	2.07
Grey Shrike-thrush	4	59	17	3.77	8.75	5.79
Rufous Whistler	23	20	17	13.21	5.00	2.07
Spotted Pardalote	5	10	16	1.89	2.50	2.48
Yellow-faced Honeyeater	0	2	15	0.00	0.63	2.48
Peaceful Dove	8	4	12	5.66	1.88	2.48
White-faced Heron	7	10	12	9.43	5.00	4.13
Yellow-rumped Thornbill	2	12	12	1.89	1.25	1.65
European Goldfinch*	7	4	11	5.66	0.63	1.65
Little Pied Cormorant	2	8	11	1.89	3.13	1.65
White-browed Babbler	0	0	11	0.00	0.00	0.41
Golden Whistler	1	6	9	1.89	2.50	2.07
Jacky Winter	0	6	9	0.00	0.63	1.65
Noisy Friarbird	2	12	9	1.89	1.88	0.41
Singing Honeyeater	0	1	9	0.00	0.63	1.65
Tree Martin	0	0	9	0.00	0.00	0.83
Common Bronzewing	0	0	8	0.00	0.00	1.24
Domestic Goose*	0	0	8	0.00	0.00	0.83
Eurasian Skylark*	0	2	8	0.00	0.63	0.41
Mistletoebird	5	7	8	7.55	2.50	2.48
Sacred Kingfisher	5	9	8	9.43	4.38	3.31
Weebill	32	12	8	11.32	1.88	0.83
Brown Quail	0	0	7	0.00	0.00	0.83
Chestnut Teal	14	1	7	5.66	0.63	1.65
Helmeted Guineafowl*	0	0	7	0.00	0.00	0.83
Pied Cormorant (NT)	0	4	7	0.00	0.63	1.65
Australasian Grebe	2	10	6	3.77	0.63	1.24
Black Honeyeater	0	0	6	0.00	0.00	0.83

Bird Species	Count			Reporting rate (%)		
	2016	2017	2018	2016	2017	2018
Yellow Thornbill	0	3	6	0.00	1.25	0.41
Great Cormorant	0	1	5	0.00	0.63	1.24
Little Lorikeet	0	0	5	0.00	0.00	1.24
Plumed Whistling-Duck	0	0	5	0.00	0.00	0.41
Striated Pardalote	10	35	5	3.77	10.00	2.07
Tawny Frogmouth	3	2	5	1.89	1.25	1.24
Yellow-billed Spoonbill	3	2	5	1.89	0.63	1.65
Black Duck-Mallard hybrid*	0	15	4	0.00	1.25	0.41
Brown Falcon	3	3	4	3.77	1.25	1.24
Domestic Duck*	0	1	4	0.00	0.63	0.83
Grey Butcherbird	0	0	4	0.00	0.00	0.83
Pied Currawong	4	22	4	3.77	1.88	1.24
Australian Hobby	0	0	3	0.00	0.00	0.83
Australian Reed-Warbler	2	9	3	1.89	1.88	0.41
Brown Goshawk	1	0	3	1.89	0.00	1.24
Cattle Egret	0	0	3	0.00	0.00	0.41
Fairy Martin	35	72	3	5.66	3.13	0.83
Grey Teal	54	6	3	3.77	1.25	0.41
Masked Woodswallow	0	0	3	0.00	0.00	0.83
Pied Butcherbird	3	0	3	3.77	0.00	1.24
Silver Gull	0	11	3	0.00	1.88	0.83
White-winged Chough	40	19	3	11.32	1.25	0.83
Azure Kingfisher (NT)	1	1	2	1.89	0.63	0.83
Black Swan	0	0	2	0.00	0.00	0.41
Black-eared Cuckoo (NT)	0	0	2	0.00	0.00	0.83
Black-fronted Dotterel	0	0	2	0.00	0.00	0.41
Brown Treecreeper (NT)	5	7	2	5.66	2.50	0.83
Dollarbird	0	16	2	0.00	3.13	0.83
Gang-gang Cockatoo	0	0	2	0.00	0.00	0.41
Great Egret	1	3	2	1.89	1.25	0.83
Purple-crowned Lorikeet	0	0	2	0.00	0.00	0.41
Royal Spoonbill	0	0	2	0.00	0.00	0.41
Southern Boobook	2	1	2	1.89	0.63	0.83
Southern Whiteface	0	0	2	0.00	0.00	0.41
Turquoise Parrot (NT)	0	0	2	0.00	0.00	0.41
Wedge-tailed Eagle	1	1	2	1.89	0.63	0.41
White-bellied Cuckoo-shrike	0	0	2	0.00	0.00	0.41
White-fronted Honeyeater	0	0	2	0.00	0.00	0.41
Black-chinned Honeyeater	0	0	1	0.00	0.00	0.41

Bird Species	Count			Reporting rate (%)		
	2016	2017	2018	2016	2017	2018
Collared Sparrowhawk	1	0	1	1.89	0.00	0.41
Eastern Spinebill	0	0	1	0.00	0.00	0.41
Eastern Yellow Robin	0	0	1	0.00	0.00	0.41
Emu	0	0	1	0.00	0.00	0.41
Flame Robin	0	0	1	0.00	0.00	0.41
Horsfield's Bronze-Cuckoo	0	0	1	0.00	0.00	0.41
Little Black Cormorant	0	7	1	0.00	3.75	0.41
Little Button-quail (NT)	0	0	1	0.00	0.00	0.41
Pallid Cuckoo	0	0	1	0.00	0.00	0.41
Rufous Songlark	12	5	1	5.66	1.25	0.41
Australasian Darter	0	4	0	0.00	0.63	0.00
Australasian Pipit	13	0	0	5.66	0.00	0.00
Australian Shelduck	2	0	0	1.89	0.00	0.00
Barn Owl	0	1	0	0.00	0.63	0.00
Black-shouldered Kite	3	2	0	3.77	1.25	0.00
Black-tailed Native-hen	0	4	0	0.00	0.63	0.00
Blue-faced Honeyeater	15	32	0	9.43	12.50	0.00
Brown Songlark	0	14	0	0.00	0.63	0.00
Brown-headed Honeyeater	0	3	0	0.00	1.25	0.00
Buff-banded Rail	0	1	0	0.00	0.63	0.00
Common Greenfinch*	1	6	0	1.89	0.63	0.00
Crested Shrike-tit	0	3	0	0.00	1.25	0.00
Diamond Firetail (NT)	4	1	0	1.89	0.63	0.00
Eurasian Tree Sparrow	15	0	0	1.89	0.00	0.00
Hardhead (Vul)	0	9	0	0.00	0.63	0.00
Hoary-headed Grebe	0	1	0	0.00	0.63	0.00
Little Eagle	0	1	0	0.00	0.63	0.00
Little Grassbird	0	2	0	0.00	0.63	0.00
Nankeen Kestrel	1	3	0	1.89	0.63	0.00
Nankeen Night-Heron	5	0	0	1.89	0.00	0.00
Red-capped Robin	0	1	0	0.00	0.63	0.00
Rock Dove*	0	2	0	0.00	1.25	0.00
Scarlet Honeyeater	0	10	0	0.00	2.50	0.00
Superb Parrot (End)	0	10	0	0.00	1.25	0.00
White-breasted Woodswallow	0	2	0	0.00	0.63	0.00
White-browed Scrubwren	0	2	0	0.00	0.63	0.00
White-eared Honeyeater	2	8	0	1.89	4.38	0.00
White-naped Honeyeater	8	2	0	3.77	1.25	0.00
White-necked Heron	5	1	0	3.77	0.63	0.00

Bird Species	Count			Reporting rate (%)		
	2016	2017	2018	2016	2017	2018
White-throated Treecreeper	0	2	0	0.00	0.63	0.00
Yellow-plumed Honeyeater	1	1	0	1.89	0.63	0.00
Yellow-tufted Honeyeater	0	2	0	0.00	0.63	0.00

* Introduced species; NT = Near Threatened; Vul = Vulnerable; End = Endangered (Department of Sustainability and Environment, 2013; BirdLife Australia, 2018).

3. Distribution Map

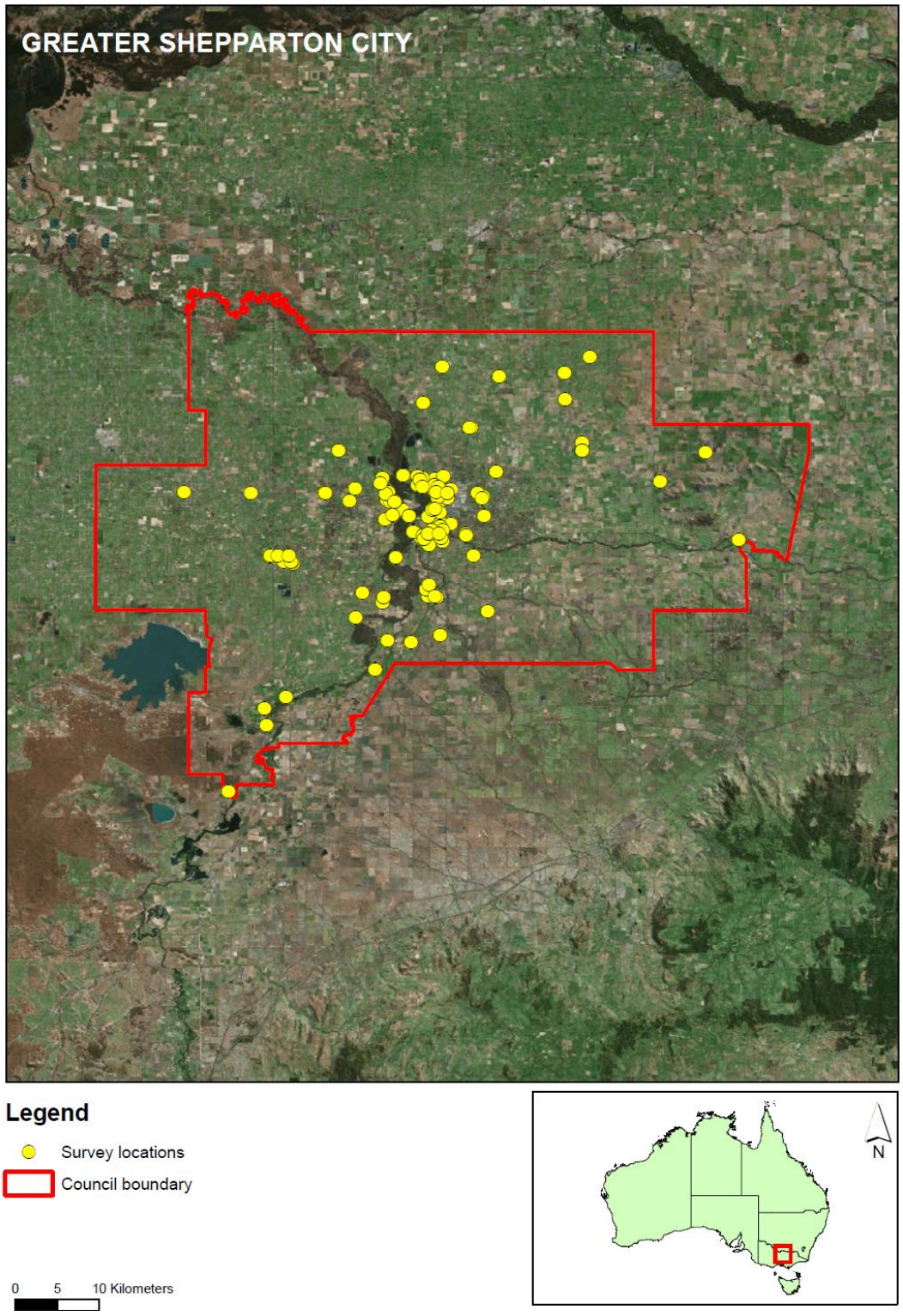


Figure 2: Bird observations recorded within the Greater Shepparton City Council boundaries during the 2018 Aussie Backyard Bird Count. Bird observations recorded in a single survey overlap as they have the same GPS co-ordinates.

4. Species List: Least Common

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

- Black-chinned Honeyeater
- Collared Sparrowhawk
- Eastern Spinebill
- Eastern Yellow Robin
- Emu
- Flame Robin
- Horsfield's Bronze-Cuckoo
- Little Black Cormorant
- Little Button-quail (NT)
- Pallid Cuckoo
- Rufous Songlark

All of the least commonly detected birds are native to Australia. The Little Button-quail is listed as Near Threatened in Victoria while the remaining species are considered to have secure populations. One of the main threats to woodland bird species, such as Little Button-quails, is habitat disturbance and loss. Habitat protection and rehabilitation is required to prevent further declines in these populations. The declining populations in Victoria may account for the single observation recorded for this species during bird week.

One of the least commonly detected species is a raptor (Collared Sparrowhawk), while the Little Black Cormorant is associated with water 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.

5. Species List: Most Common

The ten most commonly observed bird species recorded within the Greater Shepparton City Council boundaries ranged from 1,501 to 285 observations and included both native and introduced species (Figure 3). All ten species are considered to have secure populations within Victoria.

Of the top ten species, two species, the introduced House Sparrow and Australian Magpie, were in the top three species counted within Victoria during the Aussie Backyard Bird Count (Figure 3; Appendix 1). The number of individuals observed within the Greater Shepparton City Council represented 4.7% and 1.2% respectively of the total number of birds recorded for each species within the entire state. Overall, six of the most commonly detected bird species in the Greater Shepparton City Council were in the top ten most commonly recorded species nationwide (Figure 3; Appendix 1). The Rainbow Lorikeet which was the most counted bird species nationally and second most commonly recorded species within Victoria was not amongst the top ten counted birds within the Greater Shepparton City Council.

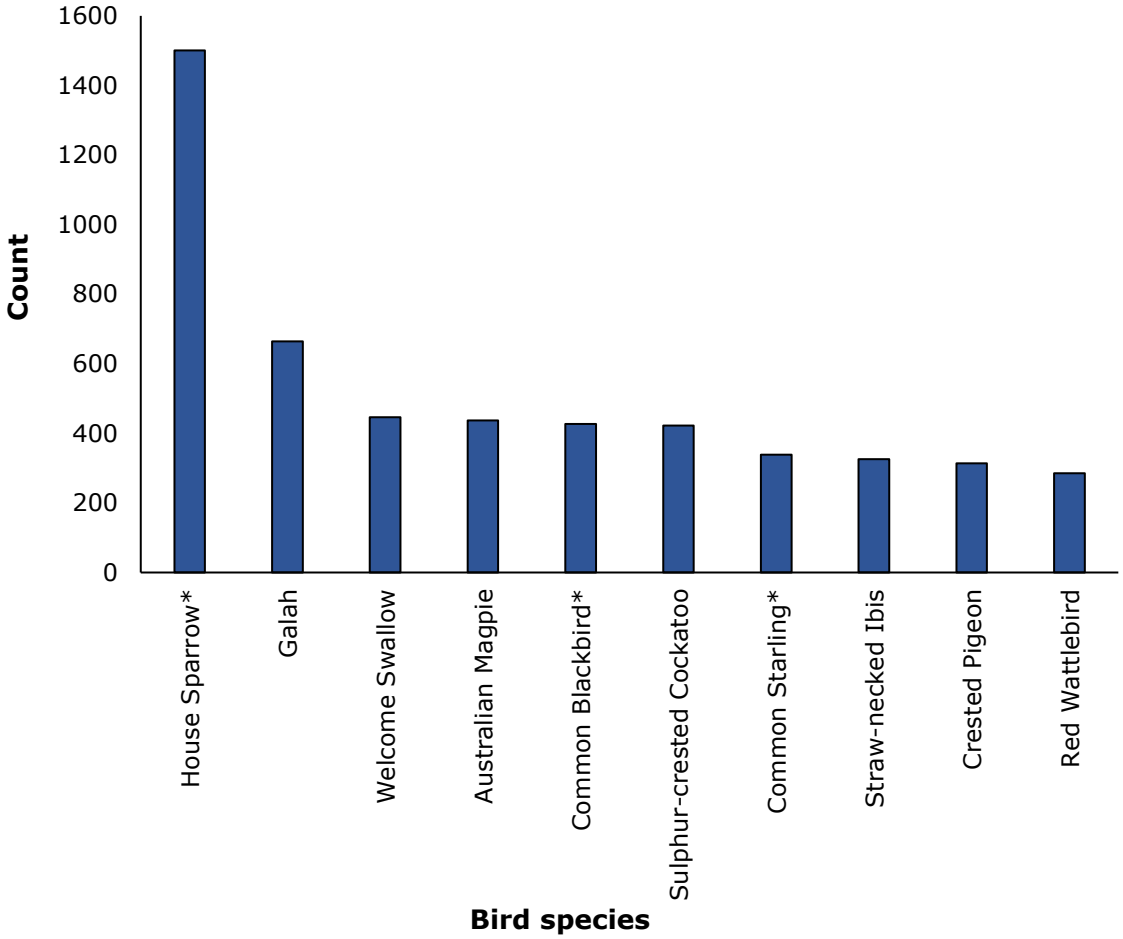


Figure 3: The ten most commonly observed bird species within the Greater Shepparton City Council boundaries during the 2018 Aussie Backyard Bird Count. *Indicates introduced species.

All ten of the most commonly detected bird species recorded within the Greater Shepparton City Council boundaries had higher reporting rates the species' national reporting rates (Figure 4). All but one of the ten most commonly detected species also had higher reporting rates compared to the Victorian reporting rates (Figure 4). The reporting rate for the Australian Magpie was only slightly lower than that of the Victorian reporting rate for the species (Figure 4). Of interest, the three introduced bird species were recorded in significantly higher proportions of surveys within the Greater Shepparton City Council boundaries than the species did both in Victorian 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 2018 Aussie Backyard Bird Count (Figure 4).

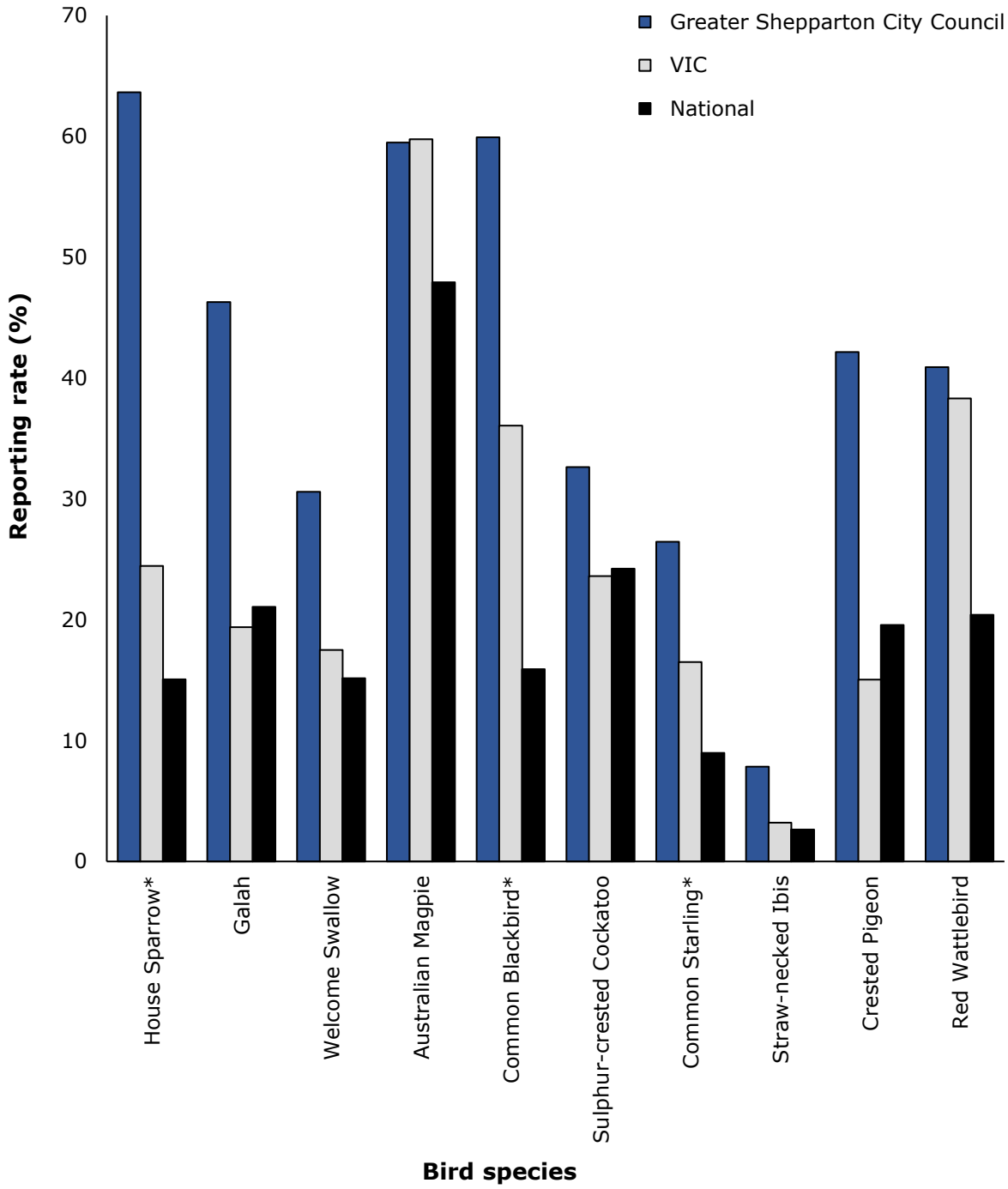


Figure 4: Comparison between the reporting rates of the top ten counted species during the 2018 Aussie Backyard Bird Count within the Greater Shepparton City Council boundaries, Victoria and nationally. *Indicates introduced species.

6. Introduced Species

Eleven introduced bird species were observed and recorded within the Greater Shepparton City Council boundaries during the 2018 Aussie Backyard Bird Count (Table 2, Figure 5). Introduced species were observed all throughout the council's boundaries but were not detected in some areas including Undera, Harston, Devenish and Kialla East (Figures 5, 6). The majority of the recorded introduced species overlapped in their distribution, however, the Eurasian Skylark and Black Duck-Mallard hybrid were only recorded in one survey each located in White Rock and Kialla West respectively (Figure 5). The highest concentrations of introduced species occurred in Shepparton (827 birds) and Lemnos (241 birds; Figure 6).

The House Sparrow was the most commonly recorded introduced species within the Greater Shepparton City (Table 2). The number of individuals counted for this species was over triple that of the Common Blackbird which was the second most commonly detected introduced species (Table 2). Of the introduced species detected, the House Sparrow was recorded in the most surveys appearing in over 60% of all the surveys conducted in the Greater Shepparton City (Table 2). The Common Blackbird also featured in just under 60% of all surveys conducted as well (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 2018 Aussie Backyard Bird Count.

Species	Count	Proportion of total count (%)	Number of surveys detected in	Reporting rate (%)
House Sparrow	1501	16.1	154	63.64
Common Blackbird	427	4.58	145	59.92
Common Starling	339	3.64	64	26.45
Common Myna	239	2.56	58	23.97
Spotted Dove	65	0.7	23	9.5
European Goldfinch	11	0.12	4	1.65
Domestic Goose	8	0.09	2	0.83
Eurasian Skylark	8	0.09	1	0.41
Helmeted Guineafowl	7	0.08	2	0.83
Black Duck-Mallard hybrid	4	0.04	1	0.41
Domestic Duck	4	0.04	2	0.83

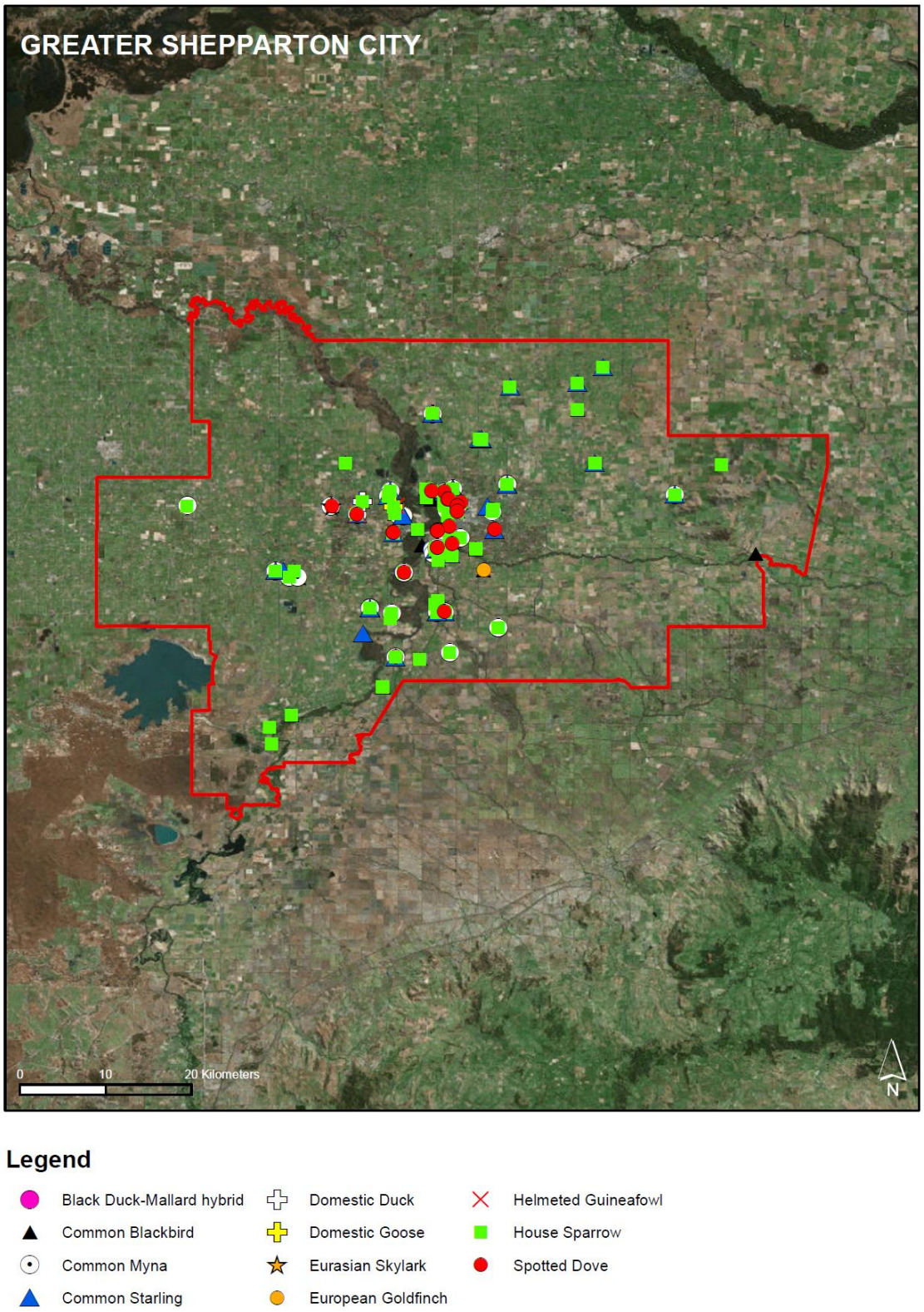


Figure 5: Distribution of the introduced bird species recorded within the Greater Shepparton City Council boundaries (red line) during the 2018 Aussie Backyard Bird Count. Bird observations recorded in a single survey overlap as they have the same GPS co-ordinates.

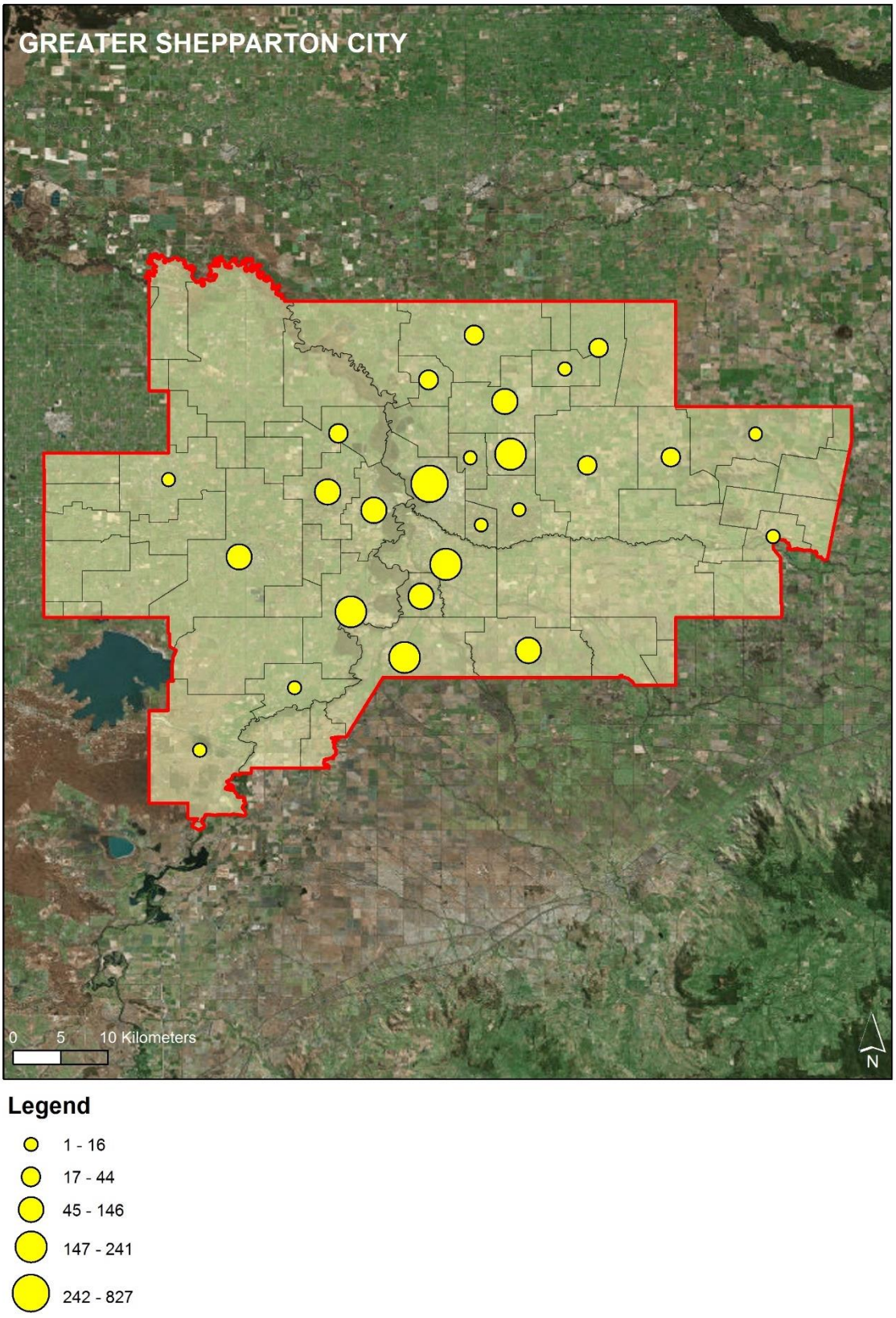


Figure 6: Number of introduced birds recorded per suburb within the Greater Shepparton City Council boundaries (red line) during the 2018 Aussie Backyard Bird Count.

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, 2019). 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

Three threatened woodland-associated bird species were detected within the Greater Shepparton City Council boundaries during the 2018 Aussie Backyard Bird Count (Table 3; Figure 7):

- Black-eared Cuckoo (Near Threatened)
- Brown Treecreeper (Near Threatened)
- Little Button-quail (Near Threatened)

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, 2019). Without a suitably sized tree hollow, parrots are unable to breed during the breeding season.

One threatened parrot species were detected within the Greater Shepparton City Council boundaries (Table 3; Figure 7):

- Turquoise Parrot (Near Threatened)

Numerous Australian water birds, or species associated with wetlands or water sources, 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, 2019). Threatened water bird species detected within the Greater Shepparton City Council boundaries during the 2018 Aussie Backyard Bird Count (Table 3; Figure 7) include:

- Pied Cormorant (Vulnerable)
- Azure Kingfisher (Near Threatened)

Table 3: Survey statistics for the threatened bird species recorded within the Greater Shepparton City Council boundaries during the 2018 Aussie Backyard Bird Count.

Species	Count	Number of surveys detected in	Reporting rate (%)
Azure Kingfisher (NT)	2	2	0.83
Black-eared Cuckoo (NT)	2	2	0.83
Brown Treecreeper (NT)	2	2	0.83
Little Button-quail (NT)	1	1	0.41
Pied Cormorant (NT)	7	4	1.65
Turquoise Parrot (NT)	2	1	0.41

NT = Near Threatened; Vul = Vulnerable; End = Endangered (Department of Sustainability and Environment, 2013; BirdLife Australia, 2018).

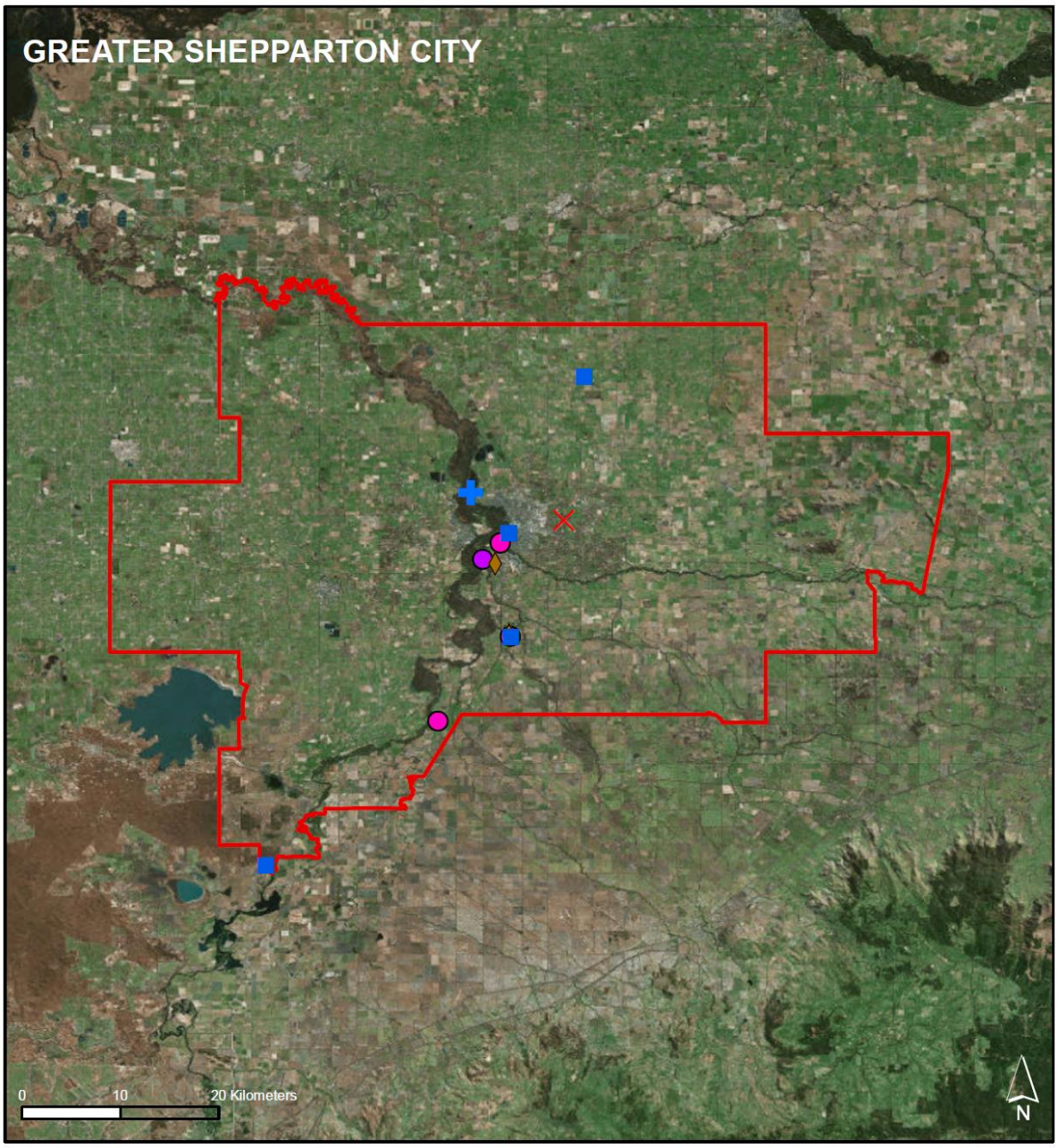


Figure 7: Distribution of the threatened Victorian bird species within the Greater Shepparton City Council boundaries (red line) during the 2018 ABBC. Bird observations recorded in a single survey overlap as they have the same GPS co-ordinates.

8. Species-specific results

8.1 Noisy Miner

During the 2018 ABBC, 17 Noisy Miners were counted within the Greater Shepparton City Council boundaries making them 19th most frequently encountered bird species in the region. Noisy Miners were amongst the top ten counted species nationwide during the 2018 Aussie Backyard Bird Count (Appendix 1). The total number of individuals observed has significantly increased since 2016, with similar counts occurring in 2017 and 2018 (Figures 8, 9). However, standardised count results indicate that Noisy Miners have been observed at the lowest rate since 2016 (Appendix 2). Noisy Miners were detected in 40 surveys in 2018 which has increased since 2016 (Figure 8).

The reporting rate of Noisy Miners within the Greater Shepparton City Council boundaries was 16.53% (Table 1). This was lower than the reporting rate for the species in 2017 (19.38%) but higher than 2016 (5.66%). The 2018 reporting rate is lower than the Victorian reporting rate for the species (25.88%) indicating that Noisy Miners were observed in a higher proportion of surveys throughout the entire state.

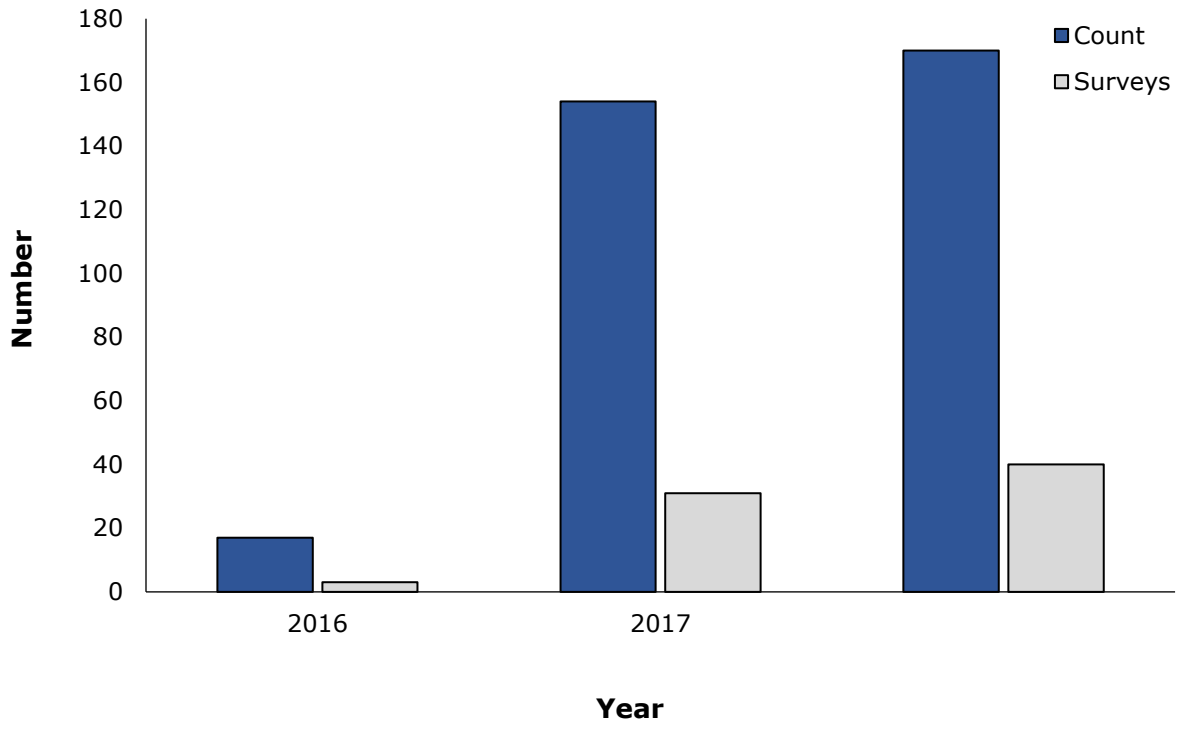


Figure 8: Comparison of the number of Noisy Miners counted and the number of surveys Noisy Miners were detected in over the last three Aussie Backyard Bird Counts.

Noisy Miners were largely observed within the central region of the council's LGA (Figure 9). The highest number of Noisy Miners were recorded in Mooroopna (88 birds) and Kialla (56 birds).

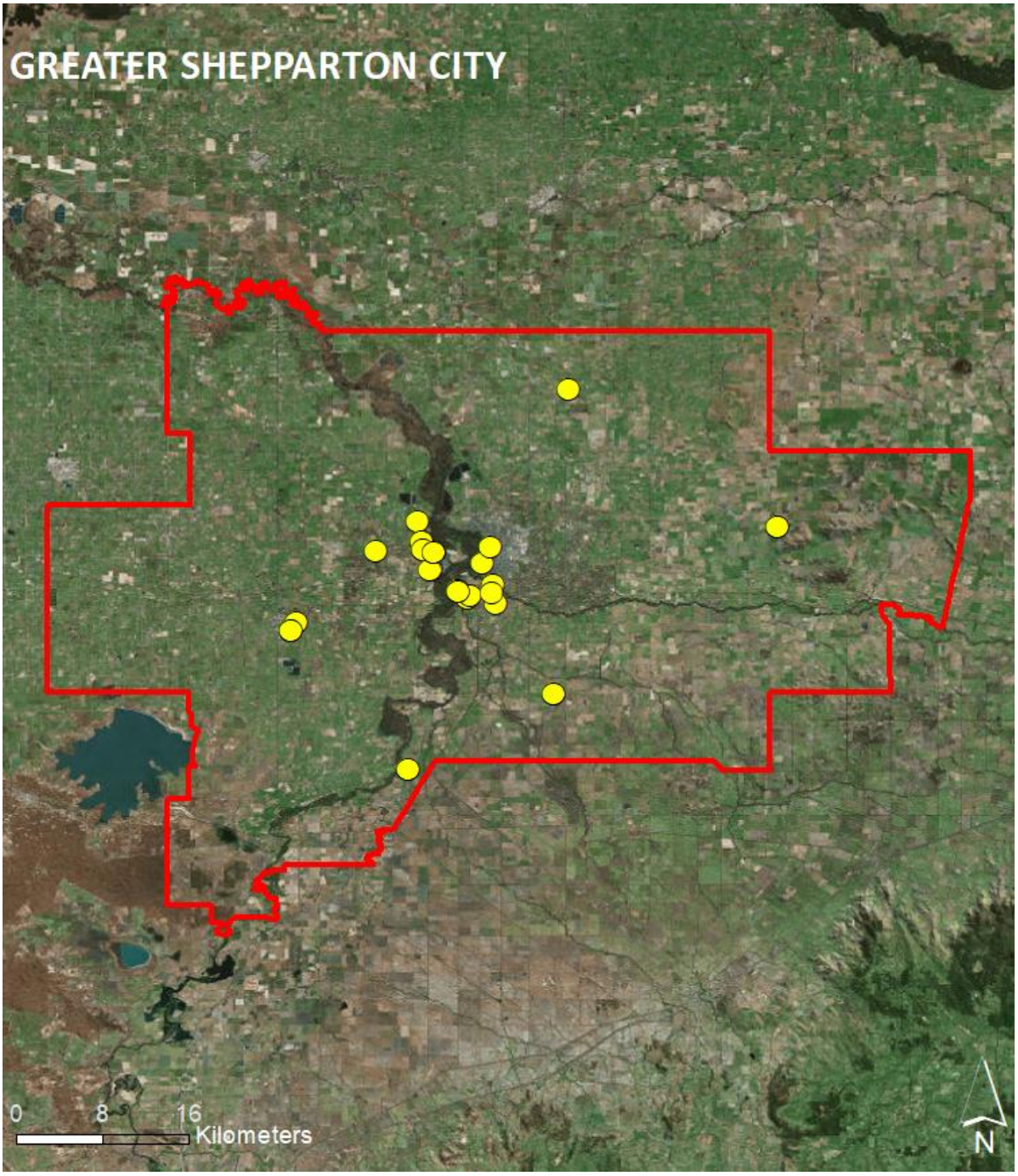


Figure 9: Distribution of Noisy Miners within the Greater Shepparton City Council boundaries (red line) during the 2018 Aussie Backyard Bird Count. Bird observations recorded in a single survey overlap as they have the same GPS co-ordinates.

8.2 Superb Fairy-wren

A total of 270 Superb Fairy-wrens were counted within the Greater Shepparton City Council boundaries during the 2018 Aussie Backyard Bird Count making them 11th most frequently encountered bird species in the region. The total number of individuals counted has varied across the last three Aussie Backyard Bird Counts, with the highest number being counted in 2017 followed by 2018 (Figures 10, 11). Standardised count results indicate that there has been a substantial decrease in the number of Superb Fairy-wrens recorded in 2018 compared to 2017 and 2016 which were both similar (Appendix 2). Superb Fairy-wrens were detected in 74 surveys which has increased since 2016 (Figure 10).

The reporting rate of Superb Fairy-wrens within the Greater Shepparton City Council boundaries was 30.58% (Table 1). This was lower than the reporting rate in 2017 (40.00%) but higher than in 2016 (26.42%). The 2018 reporting rate is higher than the Victorian reporting rate for the species (18.26%) indicating that Superb Fairy-wrens were observed in a higher proportion of surveys within the Greater Shepparton City Council boundaries compared to the entire state.

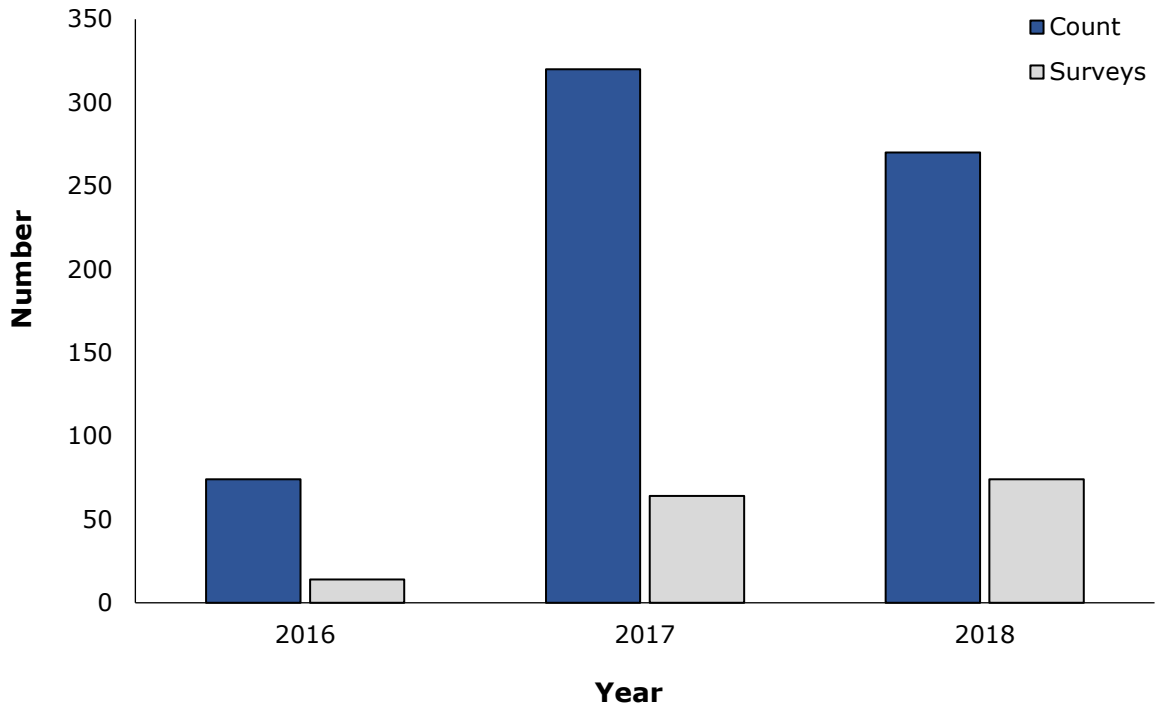


Figure 10: Comparison of the number of Superb Fairy-wrens counted and the number of surveys Superb Fairy-wrens were detected in over the last three Aussie Backyard Bird Counts.

Superb Fairy-wrens were observed throughout the majority of the Greater Shepparton City Council boundaries (Figure 11). The highest number of Superb Fairy-wrens were recorded in Arcadia (36 birds) and Pine Lodge (30 birds).

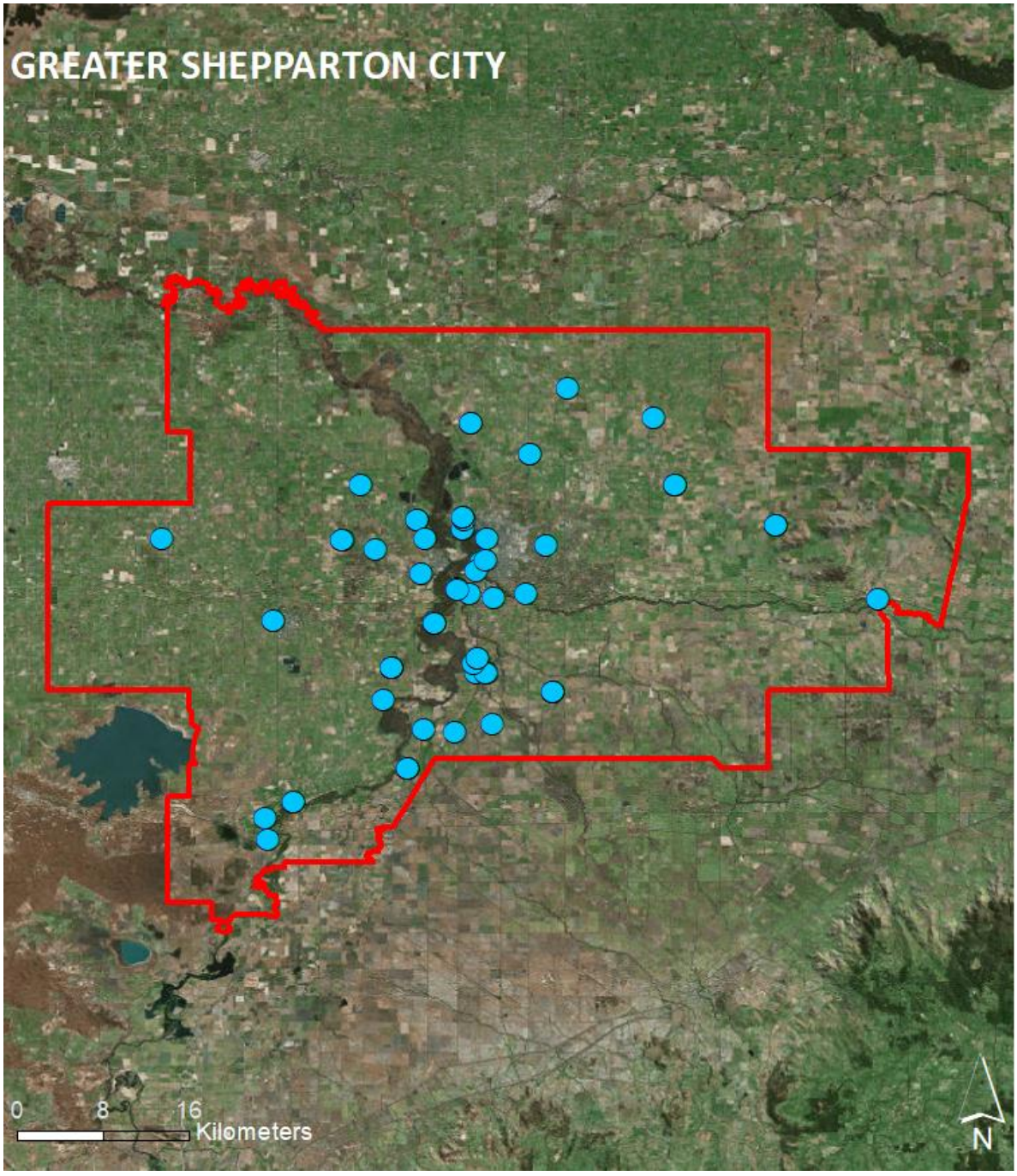


Figure 11: Distribution of Superb Fairy-wrens within the Greater Shepparton City Council boundaries (red line) during the 2018 Aussie Backyard Bird Count. Bird observations recorded in a single survey overlap as they have the same GPS co-ordinates.

8.3 Laughing Kookaburra

Fifty-four Laughing Kookaburras were counted within the Greater Shepparton City Council boundaries during the 2018 Aussie Backyard Bird Count making them 36th most frequently encountered bird species in the region. The total number observed has increased substantially since 2016 (Figures 12, 13). However, standardised count results indicate that Laughing Kookaburras have been counted at a similar rate over the last three bird counts (Appendix 2). Laughing Kookaburras were detected in 24 surveys in 2018 which has increased significantly from 2016 (Figure 12).

The reporting rate of Laughing Kookaburras within the Greater Shepparton City Council boundaries was 9.92% (Table 1). This was lower than the reporting rate for the species in 2017 (13.13%) but slightly higher than in 2016 (9.43%). The 2018 reporting rate is lower than the Victorian reporting rate for the species (11.58%) indicating that Laughing Kookaburras were observed in a higher proportion of surveys throughout the entire state.

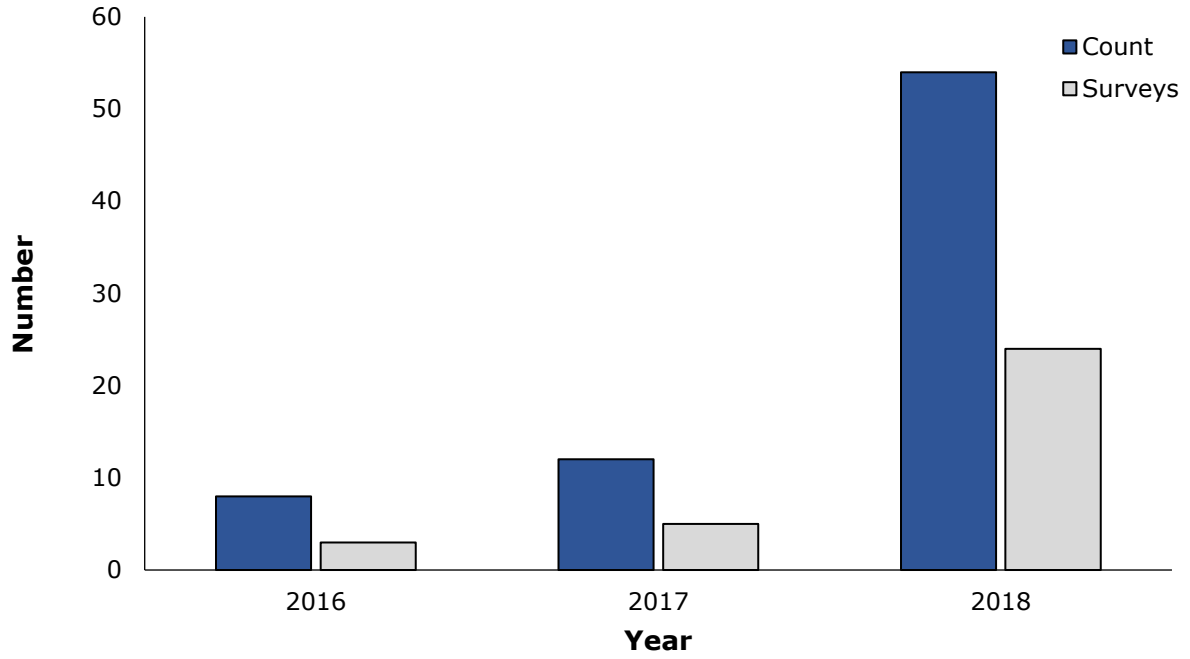


Figure 12: Comparison of the number of Laughing Kookaburras counted and the number of surveys Laughing Kookaburras were detected in over the last three Aussie Backyard Bird Counts.

Laughing Kookaburras were largely observed throughout the central region of the Greater Shepparton City Council boundaries, with no observations occurring in the north-western and south-eastern regions (Figure 13). The highest number of Laughing Kookaburras were recorded in Kialla (21 birds).

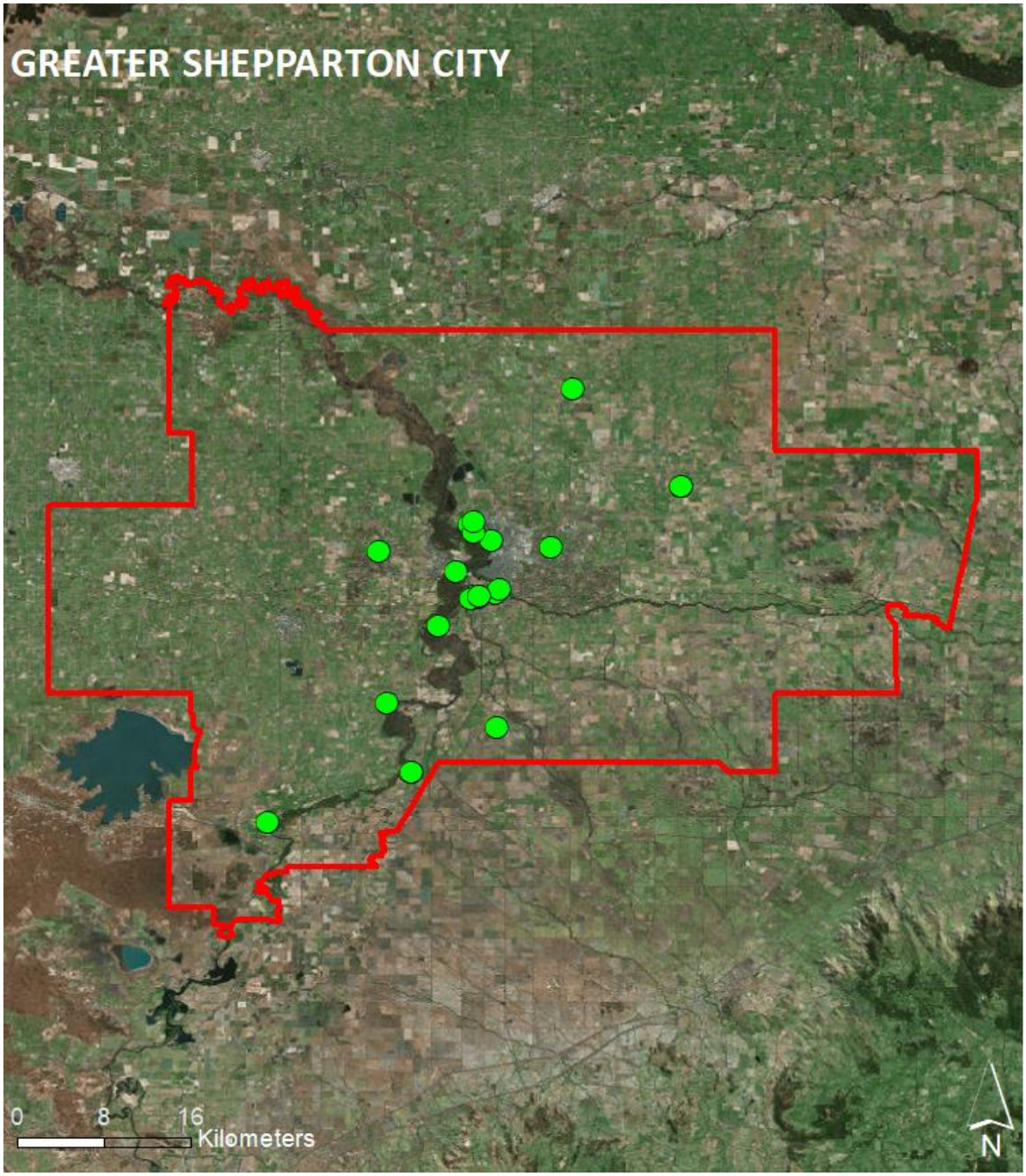


Figure 13: Distribution of Laughing Kookaburras within the Greater Shepparton City Council boundaries (red line) during the 2018 Aussie Backyard Bird Count. Bird observations recorded in a single survey overlap as they have the same GPS co-ordinates.

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 an 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 more. The accuracy when submitting surveys on the website is much less predictable than the app. Most computers do not have a GPS so co-ordinates are reliant on either Wi-Fi or the IP address. Wi-Fi can be quite accurate, but IP address-based locations are not – only identifying which city you live in.

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. The 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
- Ongoing monitoring programs for participants via our Backyard Bird surveys with feedback provided
- Children's engagement activities and school resources – ask us about our Birds in Schools programs. Options available from fully supported to teacher-delivered

For more information, please contact Birds in Backyards Program Manager

Dr. Holly Parsons
holly.parsons@birdlife.org.au

11. References

BirdLife Australia (2018). *Working list of Australian birds v2.1*. Retrieved from http://BirdLife.org.au/conservation/science/taxonomy (accessed 30/11/2018).

BirdLife Australia (2019). *Programs.* Retrieved from http://birdlife.org.au/programs/ (accessed 08/02/2019).

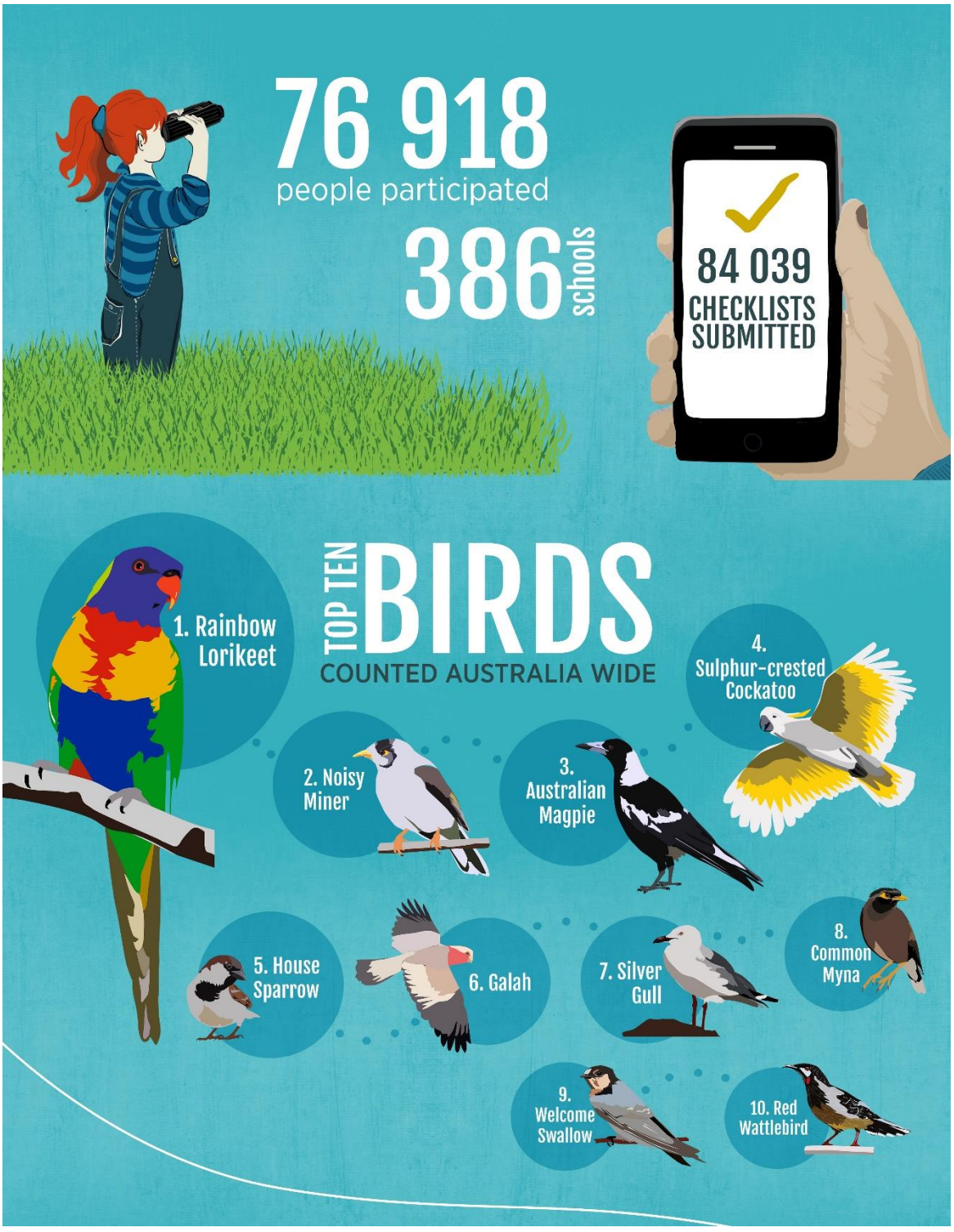
Cannon, A. (1999). The significance of private gardens for bird conservation. *Bird Conservation International*, **9:** 287-297.

Department of Sustainability and Environment (2013). *Advisory list of threatened vertebrate fauna in Victoria – 2013*. Pages 10–13. Victorian Government Department of Sustainability and Environment. East Melbourne, Victoria, Australia.

Dunn, E.H., Francis, C.M., Blancher, P.J., Drennan, S.R., Howe, M.A., Lepage, D., Robbins, C.S., Rosenberg, K.V., Sauer, JR., Smith, K.G. (2005). Enhancing the scientific value of the Christmas bird count. *The Auk*, **122:** 338-346.

Spurr, E.B. (2012). New Zealand garden bird survey – analysis of the first four years. *The New Zealand Journal of Ecology*, **36:** 1-13.

12. Appendix 1 – 2018 ABBC Results


76 918
people participated
386 schools
84 039
CHECKLISTS
SUBMITTED
TOP TEN
BIRDS
COUNTED AUSTRALIA WIDE
1. Rainbow Lorikeet
2. Noisy Miner
3. Australian Magpie
4. Sulphur-crested Cockatoo
5. House Sparrow
6. Galah
7. Silver Gull
8. Common Myna
9. Welcome Swallow
10. Red Wattlebird


TOP THREE BIRDS COUNTED IN EACH STATE AND TERRITORY
QLD
Rainbow Lorikeet
Noisy Miner
Torresian Crow
NT
Magpie Goose
Red-collared Lorikeet
Little Corella
NSW
Rainbow Lorikeet
Noisy Miner
Sulphur-crested Cockatoo
NORFOLK ISLAND
Sooty Tern
White Tern
Masked Booby
WA
Australian Raven
New Holland Honeyeater
Rainbow Lorikeet
ACT
Australian Magpie
Crimson Rosella
Pied Currawong
SA
Rainbow Lorikeet
House Sparrow
New Holland Honeyeater
TAS
House Sparrow
Common Starling
Common Blackbird
VIC
Australian Magpie
Rainbow Lorikeet
House Sparrow
Join us for next year's Aussie Backyard Bird Count
21–27 OCTOBER 2019
birdlife
AUSTRALIA

12. Appendix 2 – Standardised counts

The below table compares the standardised counts of the selected bird species within Section 8 of the report within the Greater Shepparton City Council boundaries over the last three Aussie Backyard Bird Counts.

Year	Noisy Miner	Superb Fairy-wren	Laughing Kookaburra
2016	5.67	5.29	2.67
2017	4.97	5.00	2.40
2018	4.25	3.65	2.25