

Aussie Backyard Bird Count 2018 Results:

Living Links Region

Emu Package



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### **Recommended citation:**

BirdLife Australia. 2018. Aussie Backyard Bird Count 2018 results: Living Links Region. Unpublished report for the Living Links Region.

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Published by BirdLife Australia, Suite 2-05, 60 Leicester Street, Carlton, Victoria 3053, Australia.

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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 Birddata and have now joined the Birddata 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. 2018 Aussie Backyard Bird Count Statistics

The following statistics relate to the Living Links Region during the Aussie Backyard Bird Count that ran from the 22<sup>nd</sup> to 28<sup>th</sup> October 2018:

- 1,410 observers participated in the bird count, submitting 2,398 checklists
- Submitted checklists ranged from between 1 and 34 per registered user (average of 2.7 per registered user)
- The combined duration that observers surveyed over was 750 hours and 5 minutes
- The number of birds recorded ranged from 1 to 2,111 per registered user, with an average of 65 birds recorded per registered user
- A total of 58,708 individual birds were observed and recorded during bird week (Figure 1, Table 1)
- 192 bird species were recorded (Table 1)
- The reporting rate for species (percentage of surveys a species was detected in) ranged from 0.04% to 55.38% (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

**Table 1:** The complete species list, number of individuals observed and reporting rate within the Living Links Region boundaries during the 2018 Aussie Backyard Bird Count.

Bird Species	Count	Reporting rate (%)	Bird Species	Count	Reporting rate (%)
Rainbow Lorikeet	6310	45.66	Dusky Moorhen	196	2.67
Noisy Miner	5061	40.78	Grey Fantail	195	4.63
Common Myna*	3892	40.95	Black Swan	188	1.33
Australian Magpie	3795	55.38	Silvereye	155	2.34
Spotted Dove*	3039	36.61	Straw-necked Ibis	150	1.38
Little Raven	3011	44.20	Long-billed Corella	146	1.08
Sulphur-crested Cockatoo	2973	25.15	Masked Lapwing	146	3.00
Silver Gull	2510	12.59	Australian Pelican	135	2.38
Red Wattlebird	2277	33.78	Yellow-faced Honeyeater	127	1.92
Common Blackbird*	1787	32.19	Eastern Spinebill	125	3.29
Crimson Rosella	1717	19.18	Little Black Cormorant	121	1.92
Little Wattlebird	1696	23.31	Tawny Frogmouth	113	2.54
Eurasian Coot	1661	5.25	White-browed Scrubwren	111	2.13
Pacific Black Duck	1092	9.05	Yellow-tailed Black-Cockatoo	109	1.50
Common Starling*	1083	11.59	Grey Teal	108	0.79
Australian Wood Duck	1065	6.17	Common Greenfinch*	107	0.96
Australian White Ibis	890	4.55	Spotted Pardalote	106	3.21
Rock Dove*	865	6.30	Common Bronzewing	105	1.83
Magpie-lark	808	17.18	Willie Wagtail	103	2.75
Crested Pigeon	772	12.47	Dusky Woodswallow	99	1.29
House Sparrow*	750	7.67	Bell Miner	87	1.33
Galah	723	9.55	Pied Cormorant (NT)	83	0.83
Welcome Swallow	665	8.67	Pacific Gull (NT)	79	0.79
Eastern Rosella	617	9.38	Hardhead (VU)	76	0.88
Crested Tern	502	0.50	Freckled Duck (EN)	74	0.50
Pied Currawong	493	11.34	White-faced Heron	67	2.34
Little Corella	480	3.50	Brown-headed Honeyeater	59	0.58
Grey Butcherbird	470	12.01	Australasian Grebe	56	0.79
Laughing Kookaburra	428	8.72	Australian Shelduck	56	0.38
Australian King-Parrot	411	7.59	Black Duck-Mallard hybrid*	52	0.88
Purple Swamphen	387	4.13	Striated Thornbill	52	1.08
Brown Thornbill	379	5.42	Cape Barren Goose	49	0.29
Chestnut Teal	287	2.17	Crescent Honeyeater	47	0.42
Superb Fairy-wren	286	4.55	Pied Stilt	47	0.58
New Holland Honeyeater	268	3.09	Domestic Goose*	45	0.25
Musk Lorikeet	212	2.13	Australian Reed-Warbler	44	0.67
Little Pied Cormorant	198	3.17	Grey Shrike-thrush	40	1.29

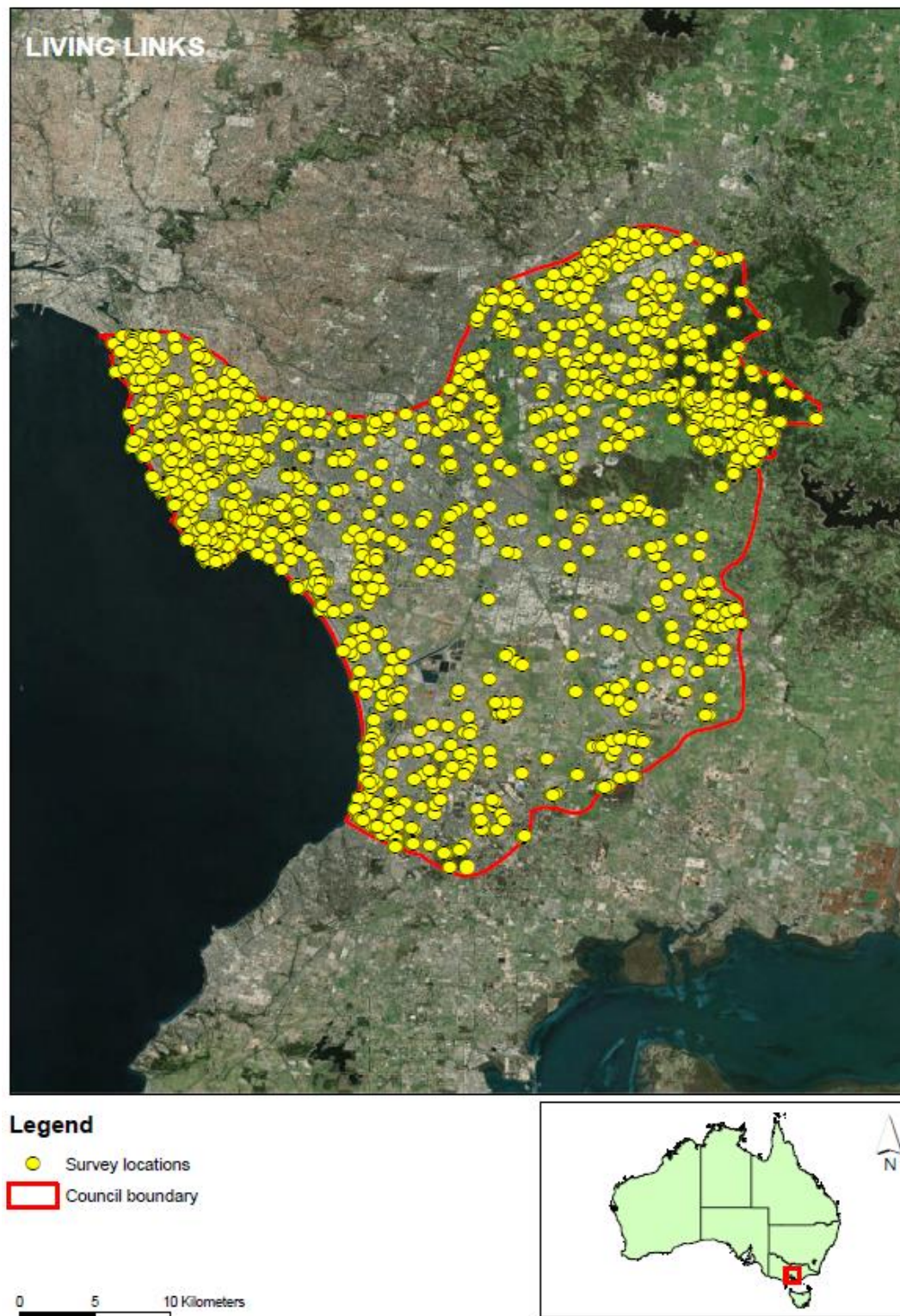
Bird Species	Count	Reporting rate (%)	Bird Species	Count	Reporting rate (%)
Eastern Yellow Robin	39	1.21	Whiskered Tern (NT)	12	0.29
Golden Whistler	39	0.92	Black-tailed Native-hen	11	0.08
Great Cormorant	39	0.58	Blue-winged Parrot	11	0.08
Musk Duck (VU)	39	0.38	Eastern Whipbird	11	0.33
Red-rumped Parrot	39	0.83	Jacky Winter	11	0.21
Australian Raven	37	1.00	Powerful Owl (VU)	11	0.29
Fairy Martin	36	0.21	White-browed Woodswallow	10	0.21
Domestic Duck*	35	0.58	Brown Goshawk	9	0.29
European Goldfinch*	32	0.67	Southern Boobook	9	0.29
White-plumed Honeyeater	31	0.67	Black-fronted Dotterel	8	0.13
White-necked Heron	30	0.33	Blue-billed Duck (EN)	8	0.21
Large-billed Scrubwren	29	0.42	Buff-rumped Thornbill	8	0.17
Striated Pardalote	27	0.83	Olive-backed Oriole	8	0.13
Black-faced Cuckoo-shrike	26	0.79	Australasian Pipit	7	0.17
Little Grassbird	25	0.29	Golden-headed Cisticola	7	0.21
Great Egret	22	0.63	White-throated Needletail (VU)	7	0.13
Red-browed Finch	21	0.46	Banded Stilt	6	0.08
Brown Treecreeper (NT)	20	0.38	Black Honeyeater	6	0.08
Wedge-tailed Eagle	20	0.54	Kelp Gull	6	0.08
White-eared Honeyeater	19	0.67	Northern Mallard*	6	0.21
Pink-eared Duck	18	0.21	Grey Currawong	5	0.13
Song Thrush*	17	0.38	Horsfield's Bronze-Cuckoo	5	0.17
Yellow Thornbill	17	0.29	Muscovy Duck*	5	0.13
Brush Bronzewing	16	0.21	Noisy Friarbird	5	0.04
Eurasian Skylark*	16	0.21	Red-kneed Dotterel	5	0.13
Fuscous Honeyeater	16	0.17	Spiny-cheeked Honeyeater	5	0.08
White-throated Treecreeper	16	0.46	White-naped Honeyeater	5	0.17
Australasian Shoveler (VU)	15	0.17	Common Greenshank (VU)	4	0.04
Bassian Thrush	15	0.33	Crested Shrike-tit	4	0.04
Little Lorikeet	15	0.33	Horsfield's Bushlark	4	0.04
Rufous Whistler	15	0.42	Satin Flycatcher	4	0.08
Royal Spoonbill	14	0.33	Shining Bronze-Cuckoo	4	0.17
Superb Lyrebird	14	0.46	Varied Sittella	4	0.04
Cattle Egret	13	0.21	Australian Owlet-nightjar	3	0.08
Little Egret (EN)	13	0.29	Common Tern	3	0.13
Sacred Kingfisher	13	0.42	Gang-gang Cockatoo	3	0.08
Fan-tailed Cuckoo	12	0.46	Mistletoebird	3	0.13
Hoary-headed Grebe	12	0.29	Nankeen Kestrel	3	0.04
Purple-crowned Lorikeet	12	0.13	Satin Bowerbird	3	0.04



Bird Species	Count	Reporting rate (%)	Bird Species	Count	Reporting rate (%)
Tree Martin	3	0.08	Brown Falcon	1	0.04
Yellow-rumped Thornbill	3	0.08	Brown Quail	1	0.04
Australasian Gannet	2	0.04	Brown Songlark	1	0.04
Black Falcon (VU)	2	0.08	Brush Cuckoo	1	0.04
Collared Sparrowhawk	2	0.04	Buff-banded Rail	1	0.04
Nankeen Night-Heron (NT)	2	0.08	Eastern Koel	1	0.04
Rose Robin	2	0.04	Eastern Reef Egret	1	0.04
Rufous Songlark	2	0.04	Flame Robin	1	0.04
Scaly-breasted Lorikeet‡	2	0.04	Grey Goshawk (VU)	1	0.04
Scarlet Robin	2	0.04	Little Eagle	1	0.04
Short-tailed Shearwater	2	0.04	Marsh Sandpiper (VU)	1	0.04
Swamp Harrier	2	0.08	Masked Woodswallow	1	0.04
Weebill	2	0.08	Olive Whistler	1	0.04
White-bellied Sea-Eagle (VU)	2	0.04	Peregrine Falcon	1	0.04
Yellow-billed Spoonbill	2	0.08	Red-necked Stint	1	0.04
Australian Hobby	1	0.04	Restless Flycatcher	1	0.04
Barn Owl	1	0.04	Rufous Fantail	1	0.04
Black-faced Monarch	1	0.04	Sooty Oystercatcher (NT)	1	0.04
Black-shouldered Kite	1	0.04	Whistling Kite	1	0.04
Black-tailed Godwit (VU)	1	0.04	White-winged Black Tern (NT)	1	0.04

\* Introduced species; ‡Naturalised species in Victoria; NT = Near Threatened; VU = Vulnerable; EN = Endangered (Department of Sustainability and Environment, 2013; BirdLife Australia, 2018).

### 3. Distribution Map



**Figure 1:** Bird observations recorded within the Living Links Region 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 Living Links Region boundaries all corresponded to one single observation and included:

- Australian Hobby
- Barn Owl
- Black-faced Monarch
- Black-shouldered Kite
- Black-tailed Godwit (VU)
- Brown Falcon
- Brown Quail
- Brown Songlark
- Brush Cuckoo
- Buff-banded Rail
- Eastern Koel
- Eastern Reef Egret
- Flame Robin
- Grey Goshawk (VU)
- Little Eagle
- Marsh Sandpiper (VU)
- Masked Woodswallow
- Olive Whistler
- Peregrine Falcon
- Red-necked Stint
- Restless Flycatcher
- Rufous Fantail
- Sooty Oystercatcher (NT)
- Whistling Kite
- White-winged Black Tern (NT)

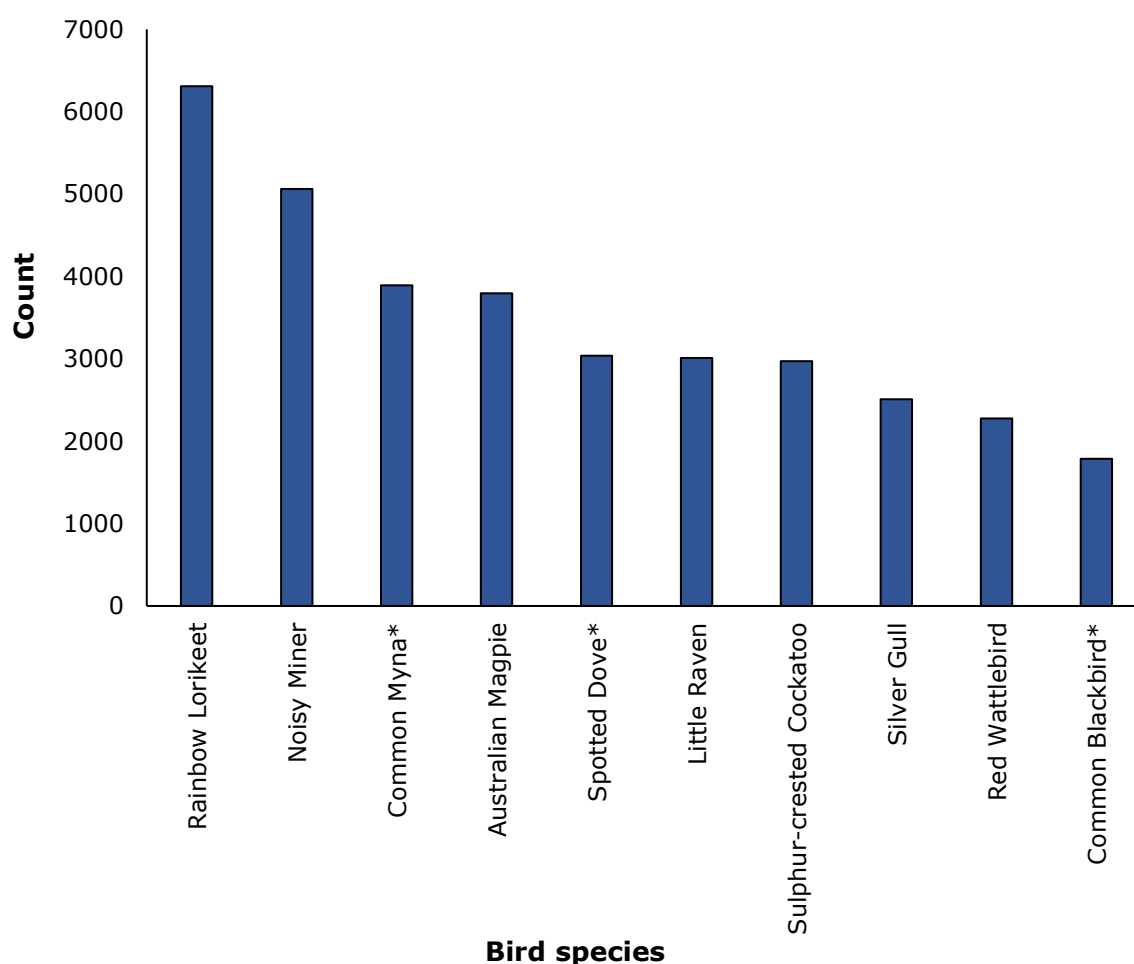
All of the least commonly detected birds are native to Australia. Five of the listed species are considered to be threatened within Victoria (NT = Near Threatened; VU = Vulnerable), while the remaining species are considered to have secure populations within Victoria. The declining populations of the threatened bird species in Victoria may partly account for the single observations recorded for these species during bird week.

Nine of the least commonly detected species are raptors, with the Barn Owl being nocturnal, while seven species are 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 during daylight hours.

## 5. Species List: Most Common

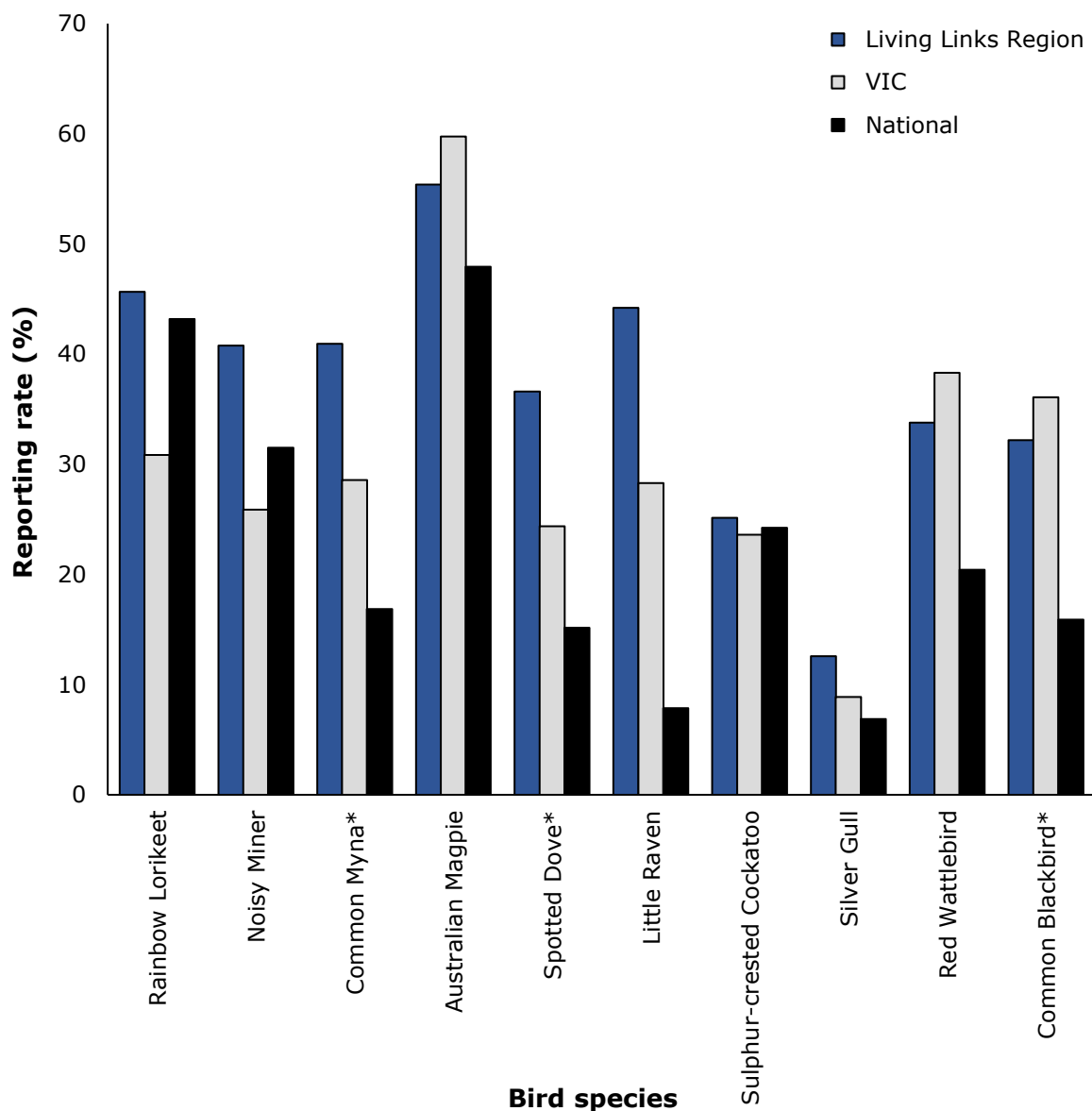
The ten most commonly observed bird species recorded within the Living Links Region boundaries ranged from 6,310 to 1,787 observations and included both native and introduced species (Figure 2). All ten species are considered to have secure populations within Victoria.

Of the top ten species, two species, Rainbow Lorikeet and Australian Magpie, were in the top three species counted within Victoria during the Aussie Backyard Bird Count (Figure 1; Appendix 1). The number of individuals observed within the Living Links Region represented 17.8% and 10.3% respectively of the total number of birds recorded for each species within the entire state. The Noisy Miner, which was the second most commonly counted species within the Living Links Region was also the second most commonly recorded species nationally (Figure 1; Appendix 1). The Rainbow Lorikeet, which was the most commonly observed species within the Living Links Region during bird week, was also the most frequently counted bird nationally (Figure 1; Appendix 1). Overall, seven of the most commonly detected bird species in the Living Links Region were in the top ten most commonly recorded species nationwide (Appendix 1).



**Figure 2:** The ten most commonly observed bird species within the Living Links Region boundaries during the 2018 Aussie Backyard Bird Count. \* indicates introduced species.

All ten of the most commonly detected species within the Living Links Region had higher reporting rates than nationally (Figure 3). All but three of the ten most commonly detected species also had higher reporting rates compared to the Victorian reporting rates for the species (Figure 3). The Australian Magpie, Red Wattlebird and Common Blackbird were all recorded in a higher proportion of surveys within Victoria compared to within the Living Links Region (Figure 3). Of interest, the reporting rates for the Rainbow Lorikeet and Sulphur-crested Cockatoo within the Living Links Region were very similar to the national reporting rate for these species (Figure 3). The Australian Magpie was detected in over half of the surveys conducted within the Living Links Region boundaries during the 2018 Aussie Backyard Bird Count.



**Figure 3:** Comparison between the reporting rates of the top ten counted species during the 2018 Aussie Backyard Bird Count within the Living Links Region boundaries, Victoria and nationally. \* indicates introduced species.

## 6. Introduced Species

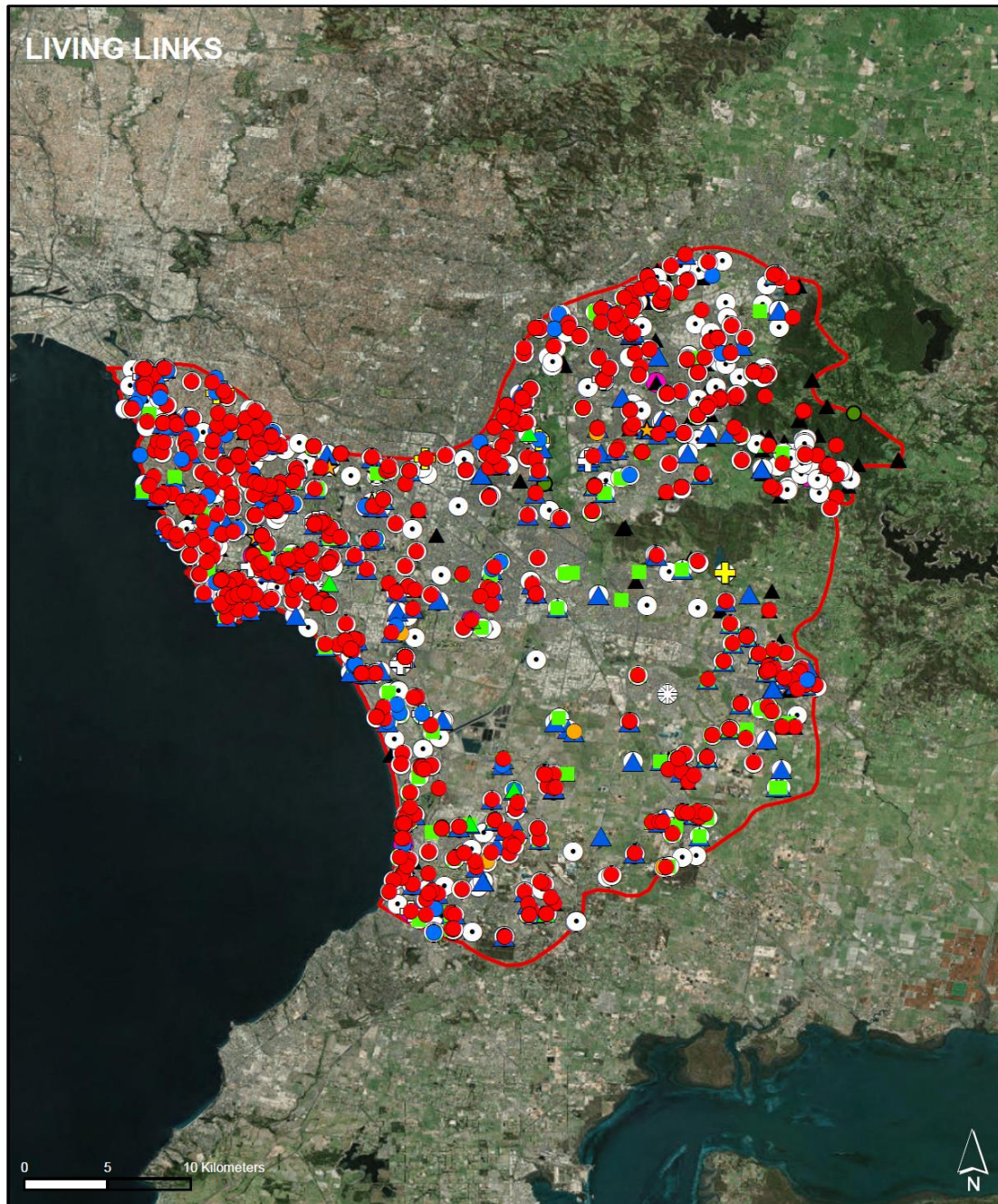
Fifteen introduced bird species were observed and recorded within the Living Links Region during the 2018 Aussie Backyard Bird Count (Table 2, Figure 4). Introduced species were observed all throughout the council's boundaries (Figures 4, 5). The majority of the recorded introduced species overlapped in their distribution, with the Domestic Duck and Domestic Goose observations likely to correspond to pets (Figure 4). The highest concentrations of introduced species occurred in Berwick (574), Beaumaris (490), Cheltenham (456), Frankston (428), Rowville (373) and Ferntree Gully (371; Figure 5).

The Common Myna was the most commonly recorded introduced species within the Living Links Region, followed by the Spotted Dove (Table 2). The number of individuals counted for these two species were significantly higher than the counts for the other introduced species recorded within the boundaries of the Living Links Region (Table 2). Of the introduced species detected, the Common Myna was recorded in the most surveys, being recorded in approximately 40% of all the surveys conducted in the Living Links Region (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 Living Links Region boundaries during the 2018 Aussie Backyard Bird Count.

Species	Count	Proportion of total count (%)	Number of surveys detected in	Reporting rate (%)
Common Myna	3892	6.63	982	40.95
Spotted Dove	3039	5.18	878	36.61
Common Blackbird	1787	3.04	772	32.19
Common Starling	1083	1.84	278	11.59
Rock Dove	865	1.47	151	6.30
House Sparrow	750	1.28	184	7.67
Common Greenfinch	107	0.18	23	0.96
Black Duck-Mallard hybrid	52	0.09	21	0.88
Domestic Goose	45	0.08	6	0.25
Domestic Duck	35	0.06	14	0.58
European Goldfinch	32	0.05	16	0.67
Song Thrush	17	0.03	9	0.38
Eurasian Skylark	16	0.03	5	0.21
Northern Mallard	6	0.01	5	0.21
Muscovy Duck	5	0.01	3	0.13



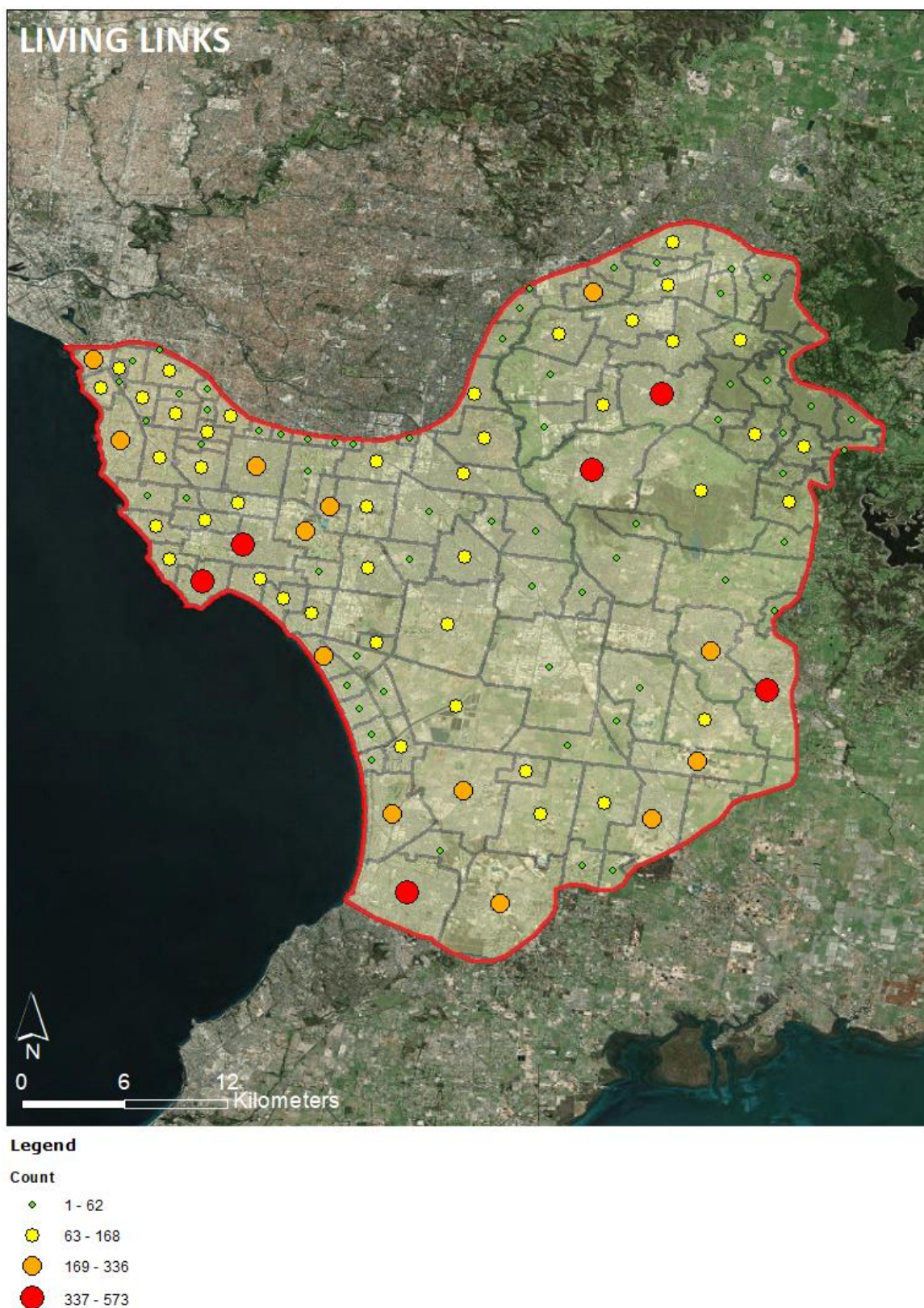


### Legend

● Black Duck-Mallard hybrid	▲ Common Starling	● European Goldfinch	● Rock Dove
▲ Common Blackbird	⊕ Domestic Duck	■ House Sparrow	▲ Song Thrush
● Common Greenfinch	⊕ Domestic Goose	☼ Muscovy Duck	● Spotted Dove
○ Common Myna	★ Eurasian Skylark	● Northern Mallard	

**Figure 4:** Distribution of the introduced bird species recorded within the Living Links Region 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 5:** Number of introduced birds recorded per suburb within the Living Links Region 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

One threatened woodland-associated bird species was detected within the Living Links Region boundaries during the 2018 Aussie Backyard Bird Count (Table 3; Figure 6):

- Brown Treecreeper (Near Threatened)

A number of Australian raptor species are also threatened due to habitat destruction and fragmentation, loss of nesting hollows and declining prey availability. The Powerful Owl is a high-profile raptor species. To help conserve Powerful Owls, a research scientist and a member of the community developed the Powerful Owl Project in New South Wales. This project was then taken on by BirdLife Australia which seeks to study the breeding and behaviour ecology of Powerful Owls and improve the management of the species such as through the protection of crucial habitat (BirdLife Australia, 2019). The project also aims to educate the community and land managers in urban conservation, while recruiting volunteers to participate in the project and record information for future scientific analysis (BirdLife Australia, 2019). BirdLife Australia has since expanded on the success of the Powerful Owl project in Sydney implementing a Melbourne Powerful Owl project.

Four raptor species were detected within the Living Links Region boundaries (Table 3; Figure 6):

- Black Falcon (Vulnerable)
- Grey Goshawk (Vulnerable)
- Powerful Owl (Vulnerable)
- White-bellied Sea-Eagle (Vulnerable)

Shorebirds across Australia are declining due to increasing beach-use conflict with recreationalists as well as habitat loss and/or modification and increased presence of predators (BirdLife Australia, 2019). In 2007, the Shorebird 2020 Program was initiated by BirdLife Australia to:

- Raise awareness of shorebirds within the community
- Coordinate national population monitoring through the engagement of community members
- Conduct research to detect national population trends and the drivers causing population changes
- Identify and protect critical shorebird habitat
- Educate stakeholders and lobby for habitat restoration/prevention of further habitat destruction

Additionally, shorebird species that nest solely on beaches (beach-nesting birds) in Australia are under immense pressure resulting in population declines. The greatest threat these species face is habitat disturbance from people visiting beaches. Peak beach use by humans coincides with the nesting season of the birds (spring and summer) resulting in incubation failure (eggs fail to hatch) or chick death due to abandonment or starvation while hiding from passers-by (BirdLife Australia, 2019). In 2006, BirdLife Australia implemented a Beach-nesting Birds Project which works with volunteers from the community to:

- Train volunteers to identify threats to beach-nesting birds as well as monitor them
- Erect signage, temporary fencing and artificial shelters to protect eggs and chicks
- Raise awareness of beach-nesting birds with beach users
- Conduct research to improve breeding success and protection strategies

Six threatened shorebird and beach-nesting bird species were recorded within the Living Links Region boundaries during the 2018 bird week (Table 3; Figure 6):

- Black-tailed Godwit (Vulnerable)
- Common Greenshank (Vulnerable)

- Marsh Sandpiper (Vulnerable)
- Sooty Oystercatcher (Near Threatened)
- Whiskered Tern (Near Threatened)
- White-winged Black Tern (Near Threatened)

Numerous Australian water birds and species associated with wetlands 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 Living Links Region boundaries during the 2018 Aussie Backyard Bird Count (Table 3; Figure 6) included:

- Australasian Shoveler (Vulnerable)
- Blue-billed Duck (Endangered)
- Freckled Duck (Endangered)
- Hardhead (Vulnerable)
- Little Egret (Endangered)
- Musk Duck (Vulnerable)
- Nankeen Night-Heron (Near Threatened)
- Pacific Gull (Near Threatened)
- Pied Cormorant (Near Threatened)

**Table 3:** Survey statistics for the threatened bird species recorded within the Living Links Region boundaries during the 2018 Aussie Backyard Bird Count.

Species	Count	Number of surveys detected in	Reporting rate (%)
Australasian Shoveler (VU)	15	4	0.17
Black Falcon (VU)	2	2	0.08
Black-tailed Godwit (VU)	1	1	0.04
Blue-billed Duck (EN)	8	5	0.21
Brown Treecreeper (NT)	20	9	0.38
Common Greenshank (VU)	4	1	0.04
Freckled Duck (EN)	74	12	0.50
Grey Goshawk (VU)	1	1	0.04
Hardhead (VU)	76	21	0.88
Little Egret (EN)	13	7	0.29
Marsh Sandpiper (VU)	1	1	0.04
Musk Duck (VU)	39	9	0.38
Nankeen Night-Heron (NT)	2	2	0.08
Pacific Gull (NT)	79	19	0.79
Pied Cormorant (NT)	83	20	0.83
Powerful Owl (VU)	11	7	0.29
Sooty Oystercatcher (NT)	1	1	0.04
Whiskered Tern (NT)	12	7	0.29
White-bellied Sea-Eagle (VU)	2	1	0.04
White-throated Needletail (VU)	7	3	0.13
White-winged Black Tern (NT)	1	1	0.04



### Legend

<span style="color: magenta;">■</span> Australasian Shoveler	<span style="color: green;">▲</span> Grey Goshawk	<span style="color: blue;">■</span> Pied Cormorant
<span style="color: yellow;">▲</span> Black Falcon	<span style="color: green;">■</span> Hardhead	<span style="color: green;">▲</span> Powerful Owl
<span style="color: yellow;">◆</span> Black-tailed Godwit	<span style="color: red;">★</span> Little Egret	<span style="color: blue;">◆</span> Sooty Oystercatcher
<span style="color: red;">■</span> Blue-billed Duck	<span style="color: magenta;">◆</span> Marsh Sandpiper	<span style="color: yellow;">▲</span> Whiskered Tern
<span style="color: brown;">◆</span> Brown Treecreeper	<span style="color: cyan;">■</span> Musk Duck	<span style="color: green;">▲</span> White-bellied Sea-Eagle
<span style="color: green;">◆</span> Common Greenshank	<span style="color: blue;">★</span> Nankeen Night-Heron	<span style="color: blue;">×</span> White-throated Needletail
<span style="color: yellow;">■</span> Freckled Duck	<span style="color: green;">●</span> Pacific Gull	<span style="color: blue;">▲</span> White-winged Black Tern

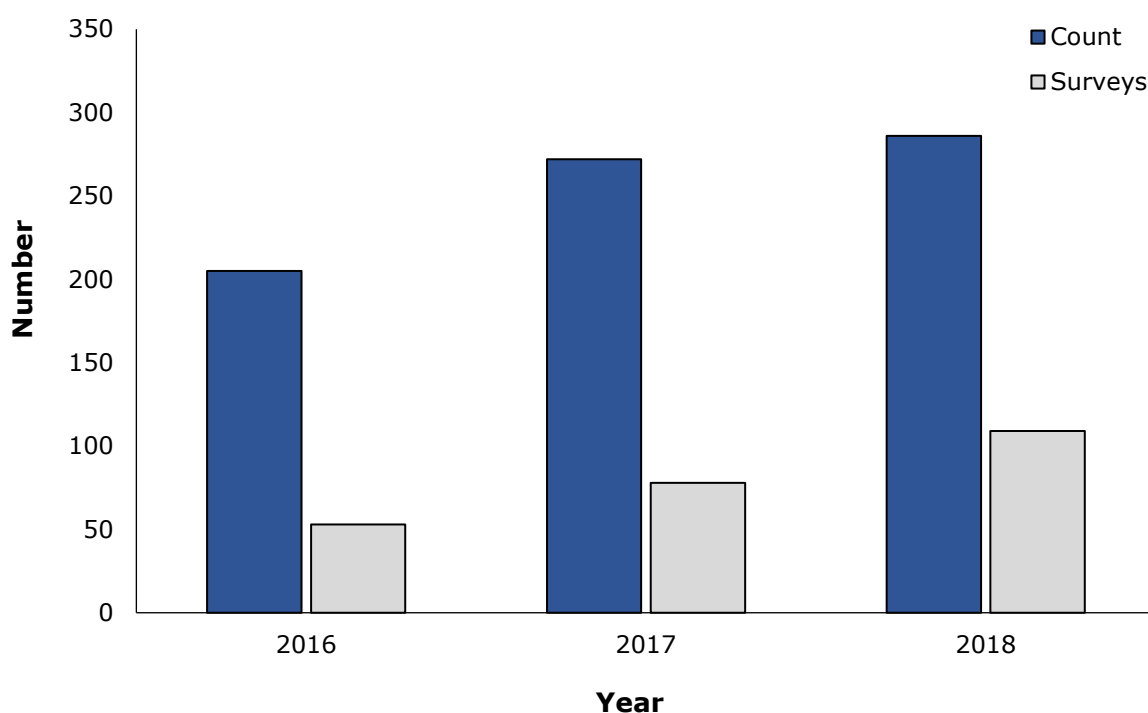
**Figure 6:** Distribution of the threatened bird species within the Living Links Region boundaries (red line) during the 2018 Aussie Backyard Bird Count. Bird observations recorded in a single survey overlap as they have the same GPS co-ordinates.

## 8. Species-specific results

### 8.1 Superb Fairy-wren

A total of 286 Superb Fairy-wrens were counted within the Living Links Region during the 2018 Aussie Backyard Bird Count making them the 34<sup>th</sup> most frequently encountered bird species in the region. The total number observed has increased during the ABBC over the last three years as well as individuals being reported in more surveys (Figures 8, 9). Standardised count results indicate the number of individuals recorded within surveys was similar in 2016 and 2017 but has dropped in 2018 (Appendix 2). Superb Fairy-wrens were detected in 109 surveys which has increased since 2016 (Figure 8).

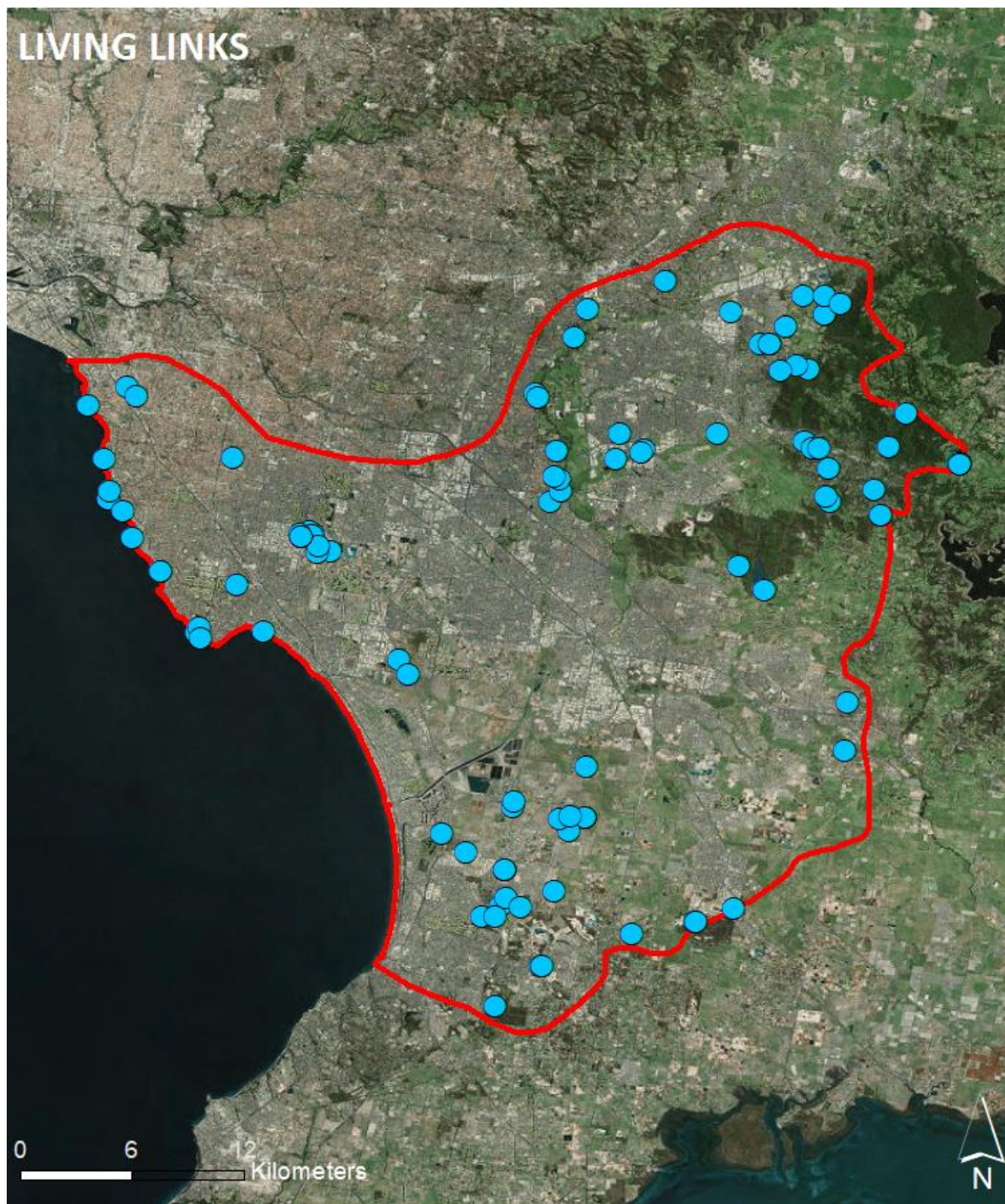
The reporting rate of Superb Fairy-wrens within the Living Links Region boundaries was 4.55% (Table 1). This was lower than the reporting rate for the species over the last two years (4.77% in 2017 and 4.81% in 2016). The 2018 reporting rate is lower than the Victorian reporting rate for the species (18.26%) indicating that Superb Fairy-wrens were observed in a higher proportion of surveys throughout the entire state.



**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 region but were not observed throughout the central regions (Figure 9). The highest number of Superb Fairy-wrens were recorded in Carrum Downs (21 birds) followed by Heatherton and Sandhurst (19 birds respectively).



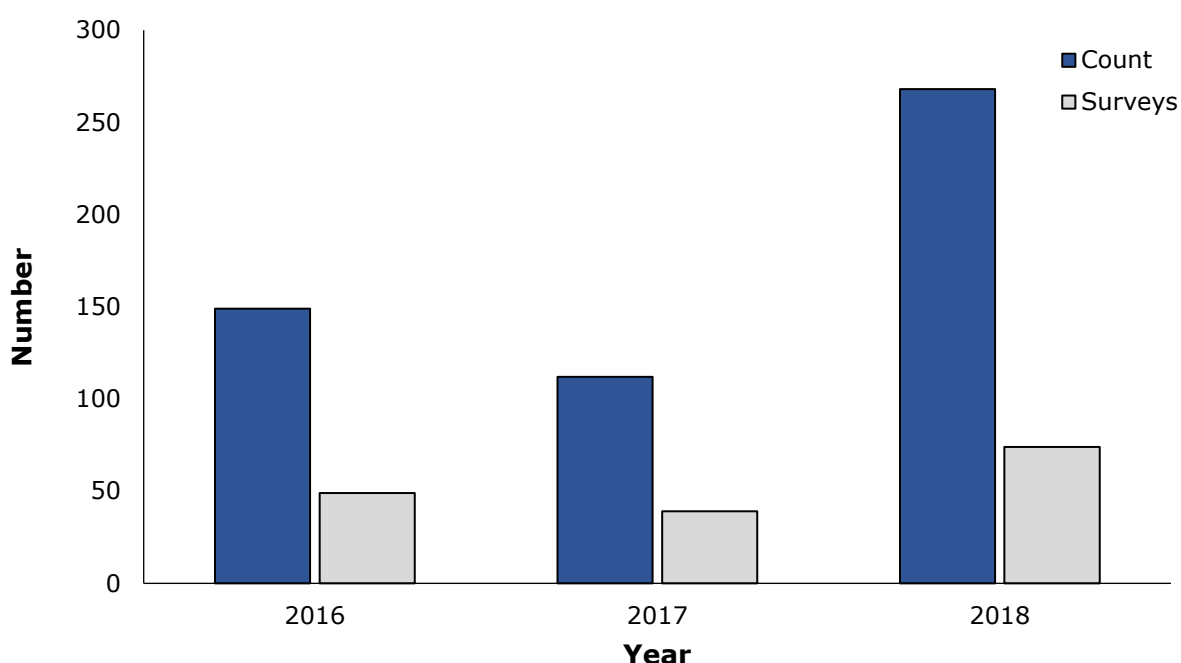


**Figure 9:** Distribution of Superb Fairy-wrens within the Living Links Region boundaries (red line) during the 2018 Aussie Backyard Bird Count. Bird observations recorded in a single survey overlap as they have the same GPS co-ordinates.

## 8.2 New Holland Honeyeater

A total of 268 New Holland Honeyeaters were counted within the Living Links Region during the 2018 Aussie Backyard Bird Count making them the 35<sup>th</sup> most frequently encountered bird species in the region. The total number of individuals has been variable over the last three Aussie Backyard Bird Counts, with 2018 having the highest number recorded (Figure 10). (Figures 10, 11). Standardised count results indicate that the number of individuals recorded within surveys has increased over the last three years, with a slight decrease occurring in 2017 compared to 2016 (Appendix 2). New Holland Honeyeaters were detected in 74 surveys which displays the same trend as the number of birds counted since 2016 (Figure 10).

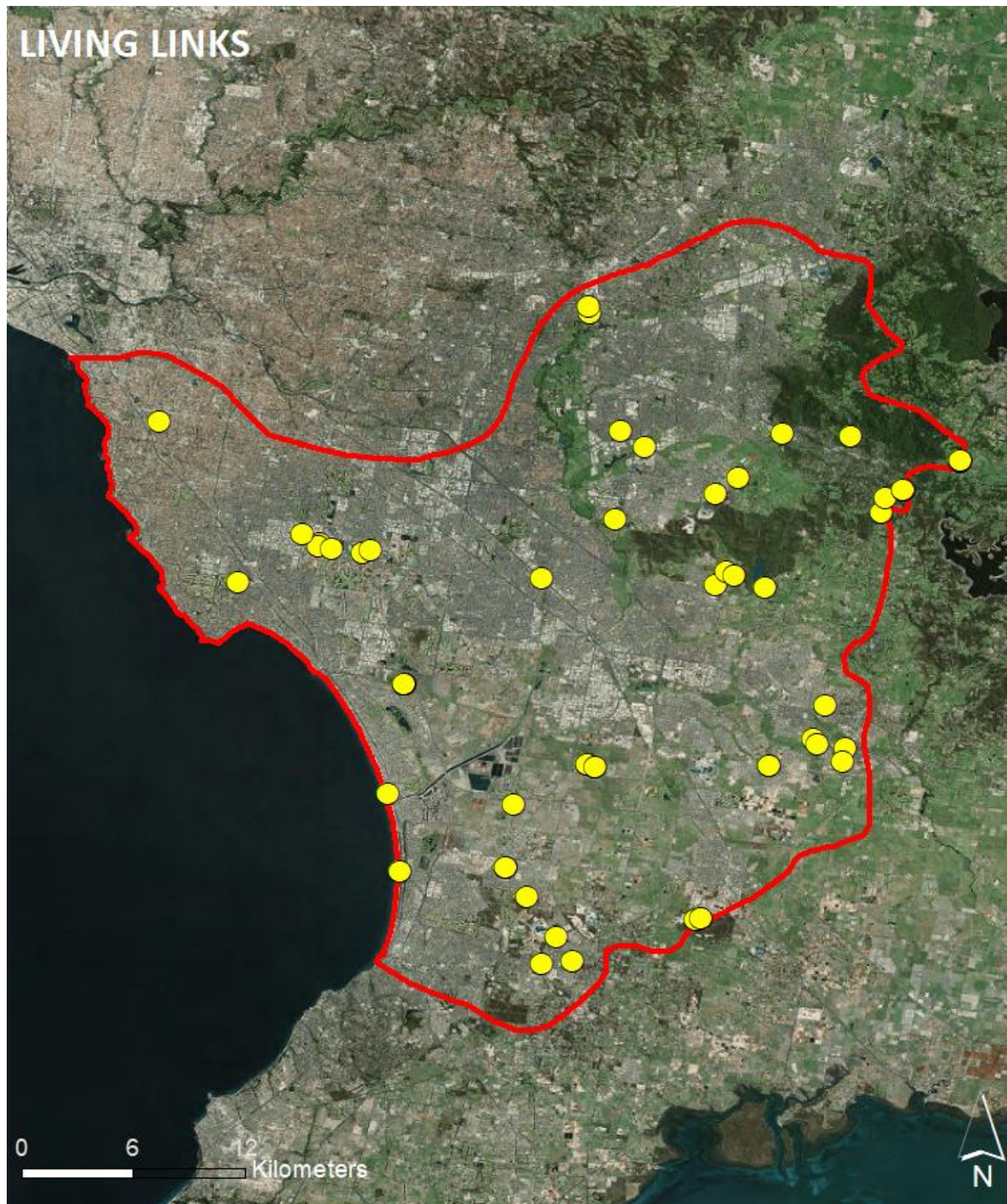
The reporting rate of New Holland Honeyeaters within the Living Links Region boundaries was 5.17% (Table 1). This was lower than the reporting rate for the species over the last two years (5.79% in 2017 and 5.34% in 2016). The 2018 reporting rate is also lower than the Victorian reporting rate for the species (16.24%) indicating that New Holland Honeyeaters were observed in a higher proportion of surveys throughout the entire state.



**Figure 10:** Comparison of the number of New Holland Honeyeaters counted and the number of surveys New Holland Honeyeaters were detected in over the last three Aussie Backyard Bird Counts.

New Holland Honeyeaters observations were scattered throughout the region (Figure 11). The highest number of New Holland Honeyeaters was recorded in Waterways (49 birds) followed by Heatherton (32 birds).



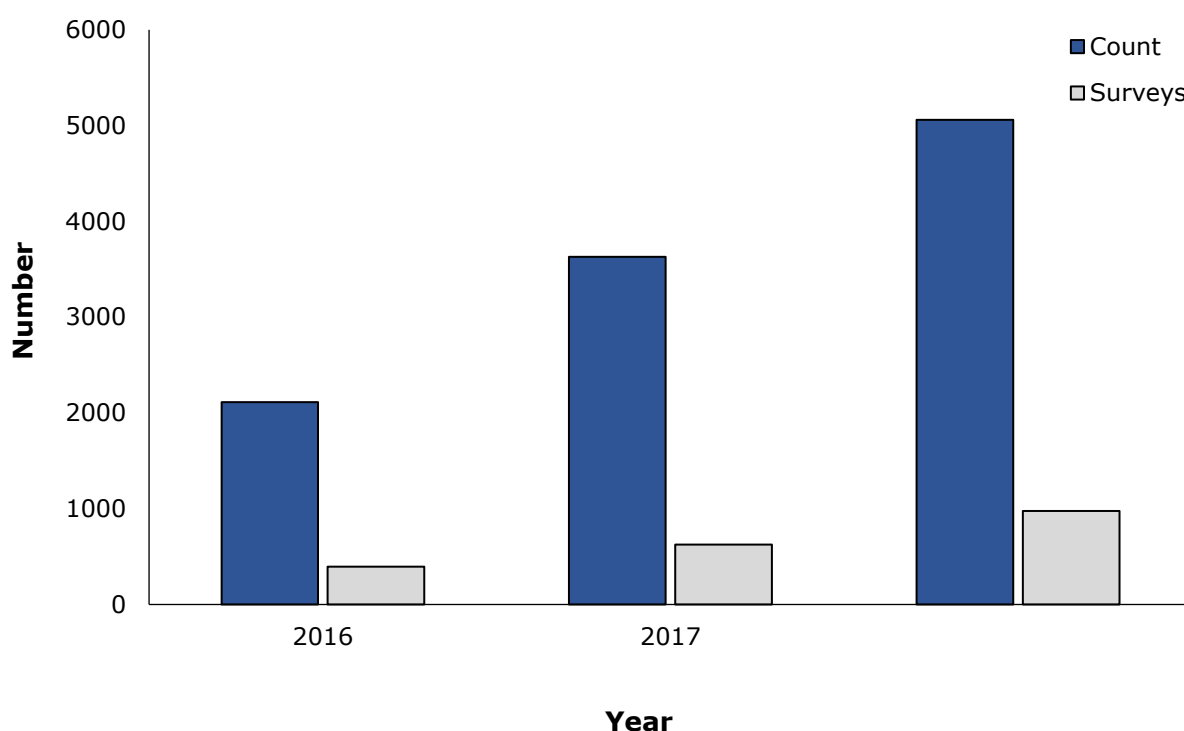


**Figure 11:** Distribution of New Holland Honeyeater within the Living Links Region boundaries (red line) during the 2018 Aussie Backyard Bird Count. Bird observations recorded in a single survey overlap as they have the same GPS co-ordinates.

### 8.3 Noisy Miner

During the 2018 ABBC, 5,061 Noisy miners were counted within the Living Links Region making them 2<sup>nd</sup> most frequently encountered bird species in the region. Nationally, Noisy Miners were in the top ten species most frequently counted during bird week (Appendix 1). The total number observed has increased during the ABBC over the last three years as well as individuals being reported in more surveys (Figures 12, 13). Standardised count results indicate the number of individuals recorded within surveys has decreased in 2018 compared with 2017 and 2016 (Appendix 2).

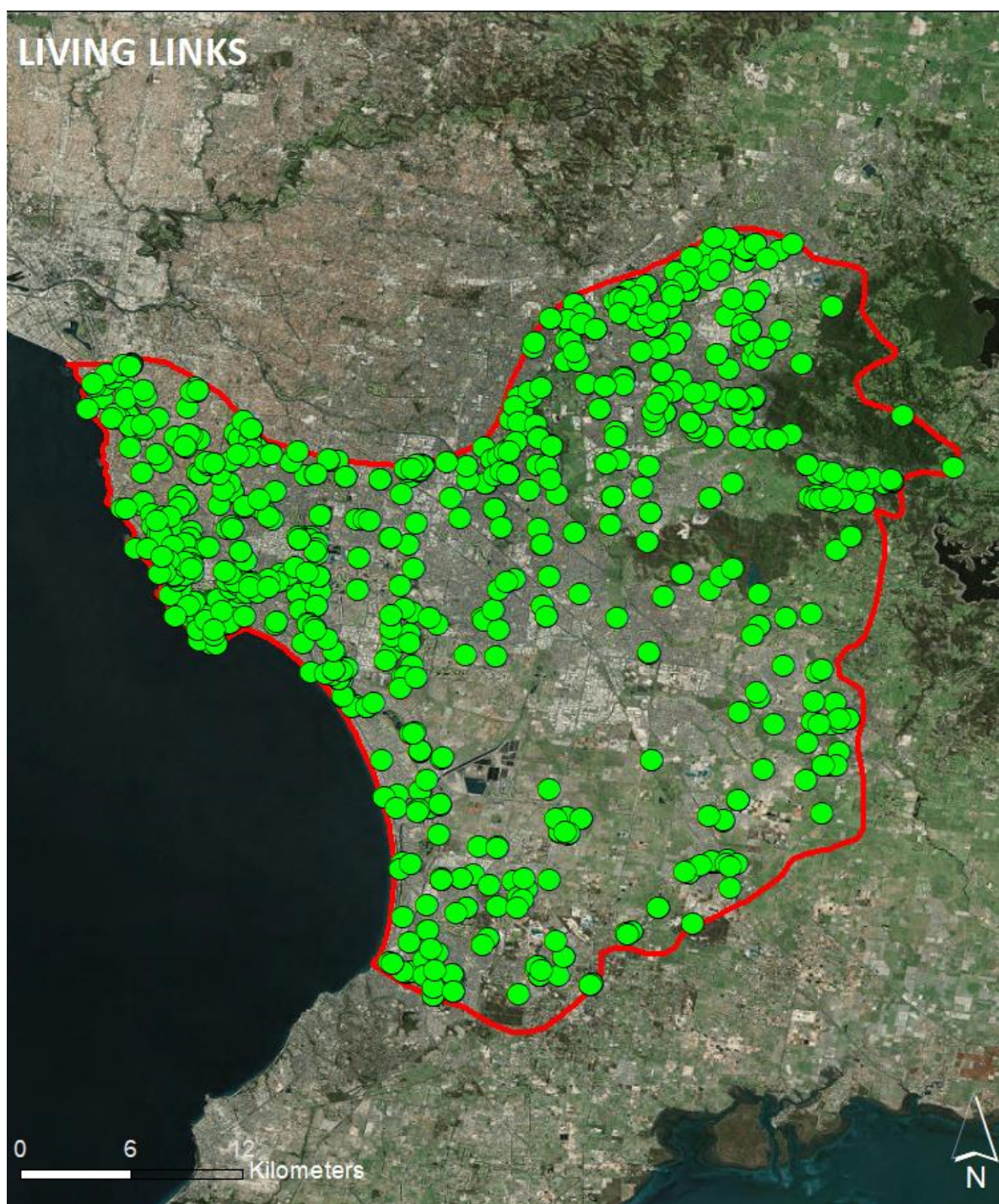
The reporting rate of Noisy Miners within the Living Links Region boundaries was 40.78% (Table 1). This was higher than the reporting rate for the species over the last two years (38.35% in 2017 and 35.84% in 2016). The 2018 reporting rate is higher than the Victorian reporting rate for the species (25.88%) indicating that Noisy Miners were observed in a higher proportion of surveys within the Living Links Region compared to the entire state.



**Figure 12:** 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 Miner observations were scattered throughout the region, however no individuals were observed in Dandenong South (Figure 11). The highest number of Noisy Miners was recorded in Beaumaris (583 birds) followed by Cheltenham (270 birds).





**Figure 13:** Distribution of Noisy Miners within the Living Links Region 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

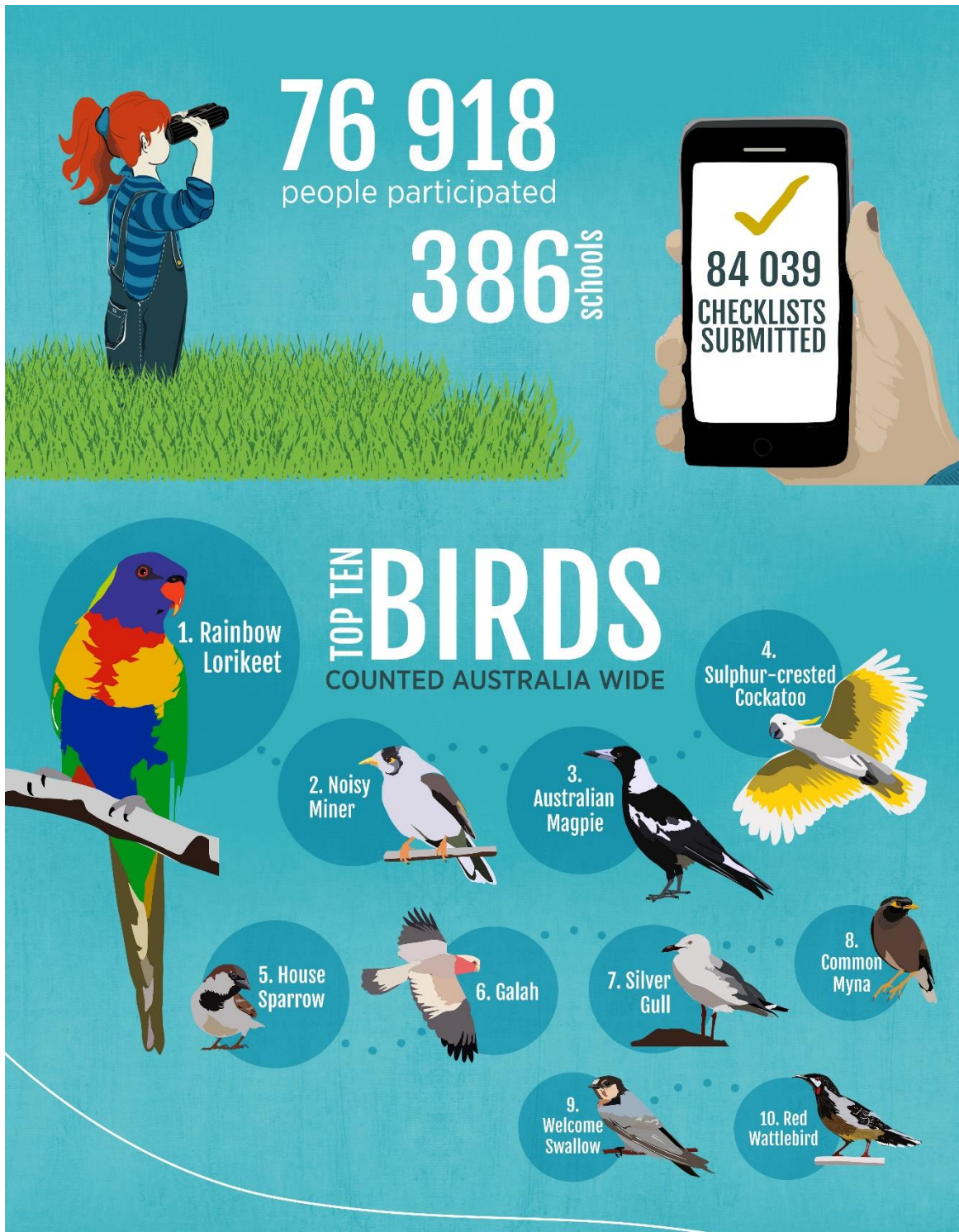
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## 12. Appendix 1 – 2018 ABBC Results



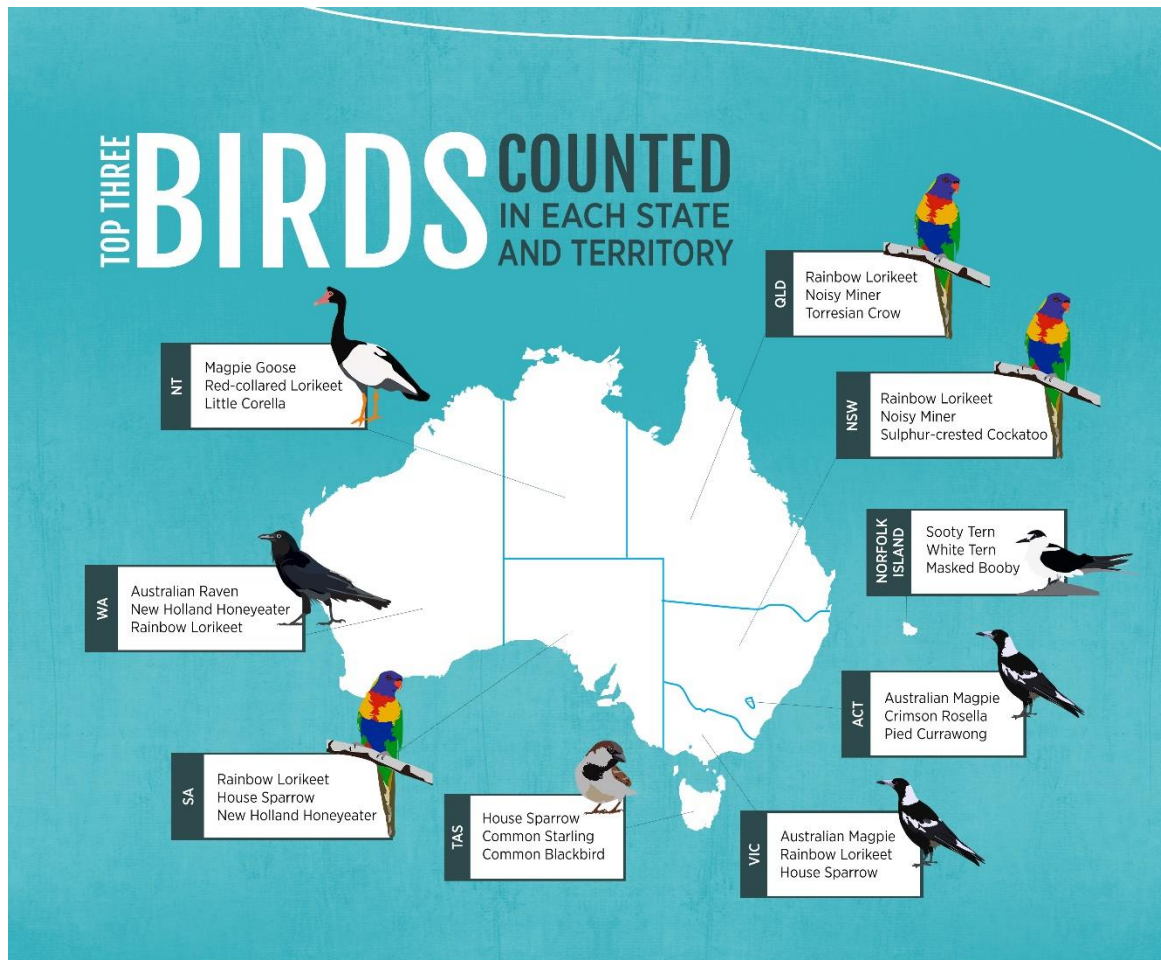
birds are in our nature





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# TOP THREE BIRDS COUNTED IN EACH STATE AND TERRITORY



Join us for next year's Aussie Backyard Bird Count  
**21-27 OCTOBER 2019**



## 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 Living Links Region boundaries over the last three Aussie Backyard Bird Counts.

Year	Superb Fairy-wren	New Holland Honeyeater	Noisy Miner
2016	3.87	3.04	5.34
2017	3.49	2.87	5.79
2018	2.62	3.62	5.17