

Aussie Backyard Bird Count 2015 Results:

Murrindindi Shire Council

Parrot Package

birds are in our nature



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Introduction

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. This citizen science endeavour enabled everyone from school children, senior citizens, families and community groups to participate in capturing a snapshot of Australia's birds. In doing so, these citizen scientists played a vital role in providing important information to Birdlife Australia to help increase our understanding of the bird species that utilise backyards and gardens. The Backyard Bird Count also raises the profile of bird species throughout Australia highlighting the importance of these species and promoting a national passion for Australian birds.

Results from the first-ever Aussie Backyard Bird Count in 2014 confirmed 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 birds remain. 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, such as Australian Magpies and Laughing Kookaburras, have also declined. 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.

Birds in Backyards (BIBY)

In 2000, 20 per cent of Australia's bird species were assessed as being either Threatened or Near Threatened in *The Action Plan for Australian Birds*. The 2006 World Wildlife Fund's report to the Nairobi conference on climate change predicted that 72 per cent of rainforest bird species in north-east Australia could become extinct if global warming continues unchecked. These are just two science-based messages that many of Australia's bird species are in danger. For those of us who love and value birds, these figures are appalling. However, for many in the general community they have little meaning. The Birds in Backyards (BIBY) program is a research, education and conservation initiative which was conceived and designed primarily in an effort to make these potential bird losses meaningful to the 85 per cent of Australians living in urban and regional areas, as well as gathering data to help clarify the issues. By involving local communities and citizen scientists, the general public are helping to undertake scientific research to determine trends in bird diversity and distribution in backyards, gardens, parks and other public urban areas where the research outputs will help contribute to developing and implementing conservation strategies.

2015 Initial Aussie Backyard Bird Count Findings

The following statistics relate to the Murrindindi Shire Council region during the Aussie Backyard Bird Count that ran from the 19th to 25th October 2015:

- 57 participants registered and submitted checklists, with 158 observers taking part
- 147 checklists were submitted ranging between 1 and 19 checklists submitted per observer (average of 2.3 per registered participant)
- The combined duration that observers surveyed over was 43 hours and 9 minutes
- Bird recordings ranged from 6 to 638 individuals per registered participant, with an average of 82 birds recorded per participant
- A total of 5,257 individual birds were observed and recorded during the week (Table 1)
- 124 bird species were recorded (Table 1)
- The reporting rate for species (percentage of surveys a species was detected in) ranged from 73.46% to 0.68% (Table 1). Species which had lots of individuals detected but were associated with a low reporting rate (e.g. Long-billed Corella) indicates that multiple birds were detected within single surveys (i.e. seen in large flocks).
- In 2014, 27 participants took part and counted 1,590 birds

Table 1: The complete species list, number of individuals observed and reporting rate within the Murrindindi Shire Council boundaries during the 2015 Aussie Backyard Bird Count.

Bird Species	Count	Reporting rate (%)	Bird Species	Count	Reporting rate (%)
Sulphur-crested Cockatoo	541	57.82	Common Blackbird*	76	23.81
Australian Magpie	457	73.47	New Holland Honeyeater	74	17.69
Crimson Rosella	361	62.59	Yellow-faced Honeyeater	72	14.29
Superb Fairy-wren	314	50.34	Eastern Spinebill	63	23.13
Welcome Swallow	262	31.29	Silvereye	60	12.24
Red-browed Finch	246	19.05	Striated Thornbill	58	10.20
Red Wattlebird	235	48.98	Eastern Rosella	54	12.24
Long-billed Corella	186	10.20	Willie Wagtail	53	16.33
Australian King-Parrot	168	36.05	Grey Fantail	52	17.69
House Sparrow*	153	16.33	Magpie-lark	49	20.41
Galah	127	23.13	Spotted Pardalote	47	15.65
Little Corella	126	9.52	Brown Thornbill	39	6.80
Common Myna*	122	20.41	Yellow-tailed Black-Cockatoo	37	8.16
Laughing Kookaburra	113	34.01	Grey Shrike-thrush	34	16.33
Australian Wood Duck	103	14.29	Pacific Black Duck	29	6.12
White-browed Scrubwren	97	18.37	Gang-gang Cockatoo	28	5.44
Little Raven	95	28.57	Australian White Ibis	27	2.72
Pied Currawong	85	27.89	Crested Pigeon	26	7.48

Bird Species	Count	Reporting rate (%)	Bird Species	Count	Reporting rate (%)
Striated Pardalote	26	8.16	Common Greenfinch*	4	1.36
Noisy Miner	25	3.40	Fan-tailed Cuckoo	4	2.72
White-winged Chough	24	2.72	Horsfield's Bronze-Cuckoo	4	0.68
Eastern Whipbird	23	9.52	Olive-backed Oriole	4	2.72
Satin Bowerbird	23	5.44	Southern Boobook	4	2.04
White-throated Treecreeper	22	10.88	White-plumed Honeyeater	4	0.68
Bell Miner	21	2.72	Yellow-billed Spoonbill	4	0.68
Rufous Whistler	19	8.16	Australasian Grebe	3	1.36
European Goldfinch*	17	4.76	Dusky Woodswallow	3	1.36
Crescent Honeyeater	16	2.04	Little Black Cormorant	3	1.36
Weebill	15	2.72	Superb Lyrebird	3	1.36
Purple Swamphen	14	3.40	Tawny Frogmouth	3	2.04
Blue-billed Duck (End)	13	0.68	White-naped Honeyeater	3	1.36
Buff-rumped Thornbill	13	2.72	Australian Pelican	2	1.36
Eurasian Skylark*	13	1.36	Banded Lapwing	2	0.68
Grey Currawong	13	4.76	Common Bronzewing	2	1.36
Masked Lapwing	13	4.08	Crested Shrike-tit	2	0.68
Dusky Moorhen	12	2.72	Hardhead (Vul)	2	0.68
Grey Butcherbird	12	6.12	Jacky Winter	2	1.36
Straw-necked Ibis	12	2.72	Little Friarbird	2	0.68
Black-faced Cuckoo-shrike	11	6.12	Little Pied Cormorant	2	0.68
Yellow Thornbill	11	2.04	Pied Cormorant (NT)	2	0.68
Diamond Firetail (NT)	10	0.68	Song Thrush*	2	1.36
White-faced Heron	10	6.12	Wonga Pigeon	2	1.36
Common Starling*	9	1.36	Australasian Pipit	1	0.68
Golden Whistler	9	4.08	Australian Raven	1	0.68
Mistletoebird	9	3.40	Australian Spotted Crake	1	0.68
Rainbow Lorikeet	9	1.36	Barking Owl (End)	1	0.68
Yellow-rumped Thornbill	9	2.04	Bassian Thrush	1	0.68
Beautiful Firetail	6	0.68	Brown Falcon	1	0.68
Eastern Yellow Robin	6	2.72	Brush Cuckoo	1	0.68
Nankeen Kestrel	6	2.72	Flame Robin	1	0.68
Wedge-tailed Eagle	6	3.40	Freckled Duck (End)	1	0.68
White-necked Heron	6	4.08	Grey Goshawk (Vul)	1	0.68
Azure Kingfisher (NT)	5	2.72	Large-billed Scrubwren	1	0.68
Indian Peafowl*	5	0.68	Little Eagle	1	0.68
Little Wattlebird	5	3.40	Pallid Cuckoo	1	0.68
Restless Flycatcher	5	2.04	Peregrine Falcon	1	0.68
Sacred Kingfisher	5	2.04	Regent Honeyeater (Cr End)	1	0.68
Shining Bronze-Cuckoo	5	3.40	Rose Robin	1	0.68
Brown-headed Honeyeater	4	0.68	Rufous Fantail	1	0.68

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Bird Species	Count	Reporting rate (%)	Bird Species	Count	Reporting rate (%)
Singing Honeyeater	1	0.68	Varied Sittella	1	0.68
Square-tailed Kite (Vul)	1	0.68	White-breasted Woodswallow	1	0.68
Tree Martin	1	0.68	White-cheeked Honeyeater	1	0.68

* Introduced species; Cr End = Critically Endangered; End = Endangered; Vul = Vulnerable; NT = Near Threatened (Department of Sustainability and Environment, 2013; BirdLife Australia, 2015).

Distribution Map

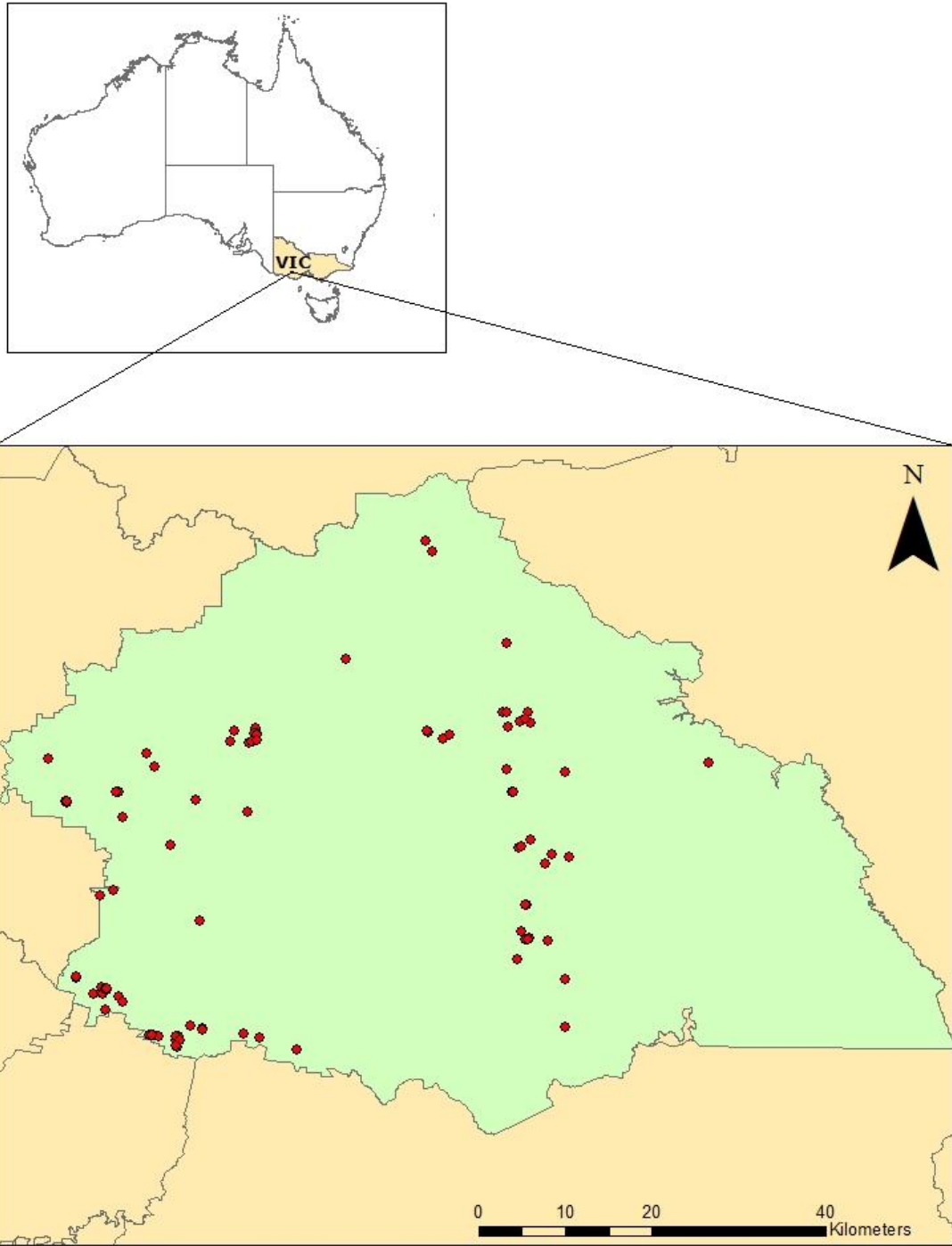
The bird observations recorded within the boundaries of the Murrindindi Shire Council during the 2015 Aussie Backyard Bird Count are largely scattered throughout the region with the exception of to the east of Buxton and Marysville and through the central area surrounding Limestone (Figure 1).

Species List: Least Common

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

- Australasian Pipit
- Australian Raven
- Australian Spotted Crake
- Barking Owl (End)
- Bassian Thrush
- Brown Falcon
- Brush Cuckoo
- Flame Robin
- Freckled Duck (End)
- Grey Goshawk (Vul)
- Large-billed Scrubwren
- Little Eagle
- Pallid Cuckoo
- Peregrine Falcon
- Regent Honeyeater (Cr End)
- Rose Robin
- Rufous Fantail
- Singing Honeyeater
- Square-tailed Kite (Vul)
- Tree Martin
- Varied Sittella
- White-breasted Woodswallow
- White-cheeked Honeyeater

All of the least commonly detected species were native species. One species, the Regent Honeyeater, is listed as Critically Endangered (Cr End) in Victoria, while two are listed as Endangered (End) and two are listed as Vulnerable (Vul). Two species are water birds (the Australian Spotted Crake and Freckled Duck), while six species are raptors.



Legend

- Bird observation
- Murrindindi Council boundary
- VIC

Figure 1: Bird observations recorded within the Murrindindi Shire Council boundaries during the 2015 Aussie Backyard Bird Count. Bird observations recorded in a single survey appear as one dot as are assigned the same GPS co-ordinates.

Species List: Most Common

The 10 most commonly observed bird species recorded within the Murrindindi Shire Council boundaries ranged from 153 to 541 individuals and included both native and introduced species (Figure 2). The Sulphur-crested Cockatoo was the most commonly detected species within the Murrindindi Shire Council boundaries followed closely by the Australian Magpie and Crimson Rosella. All 10 species are considered to have secure populations within Victoria.

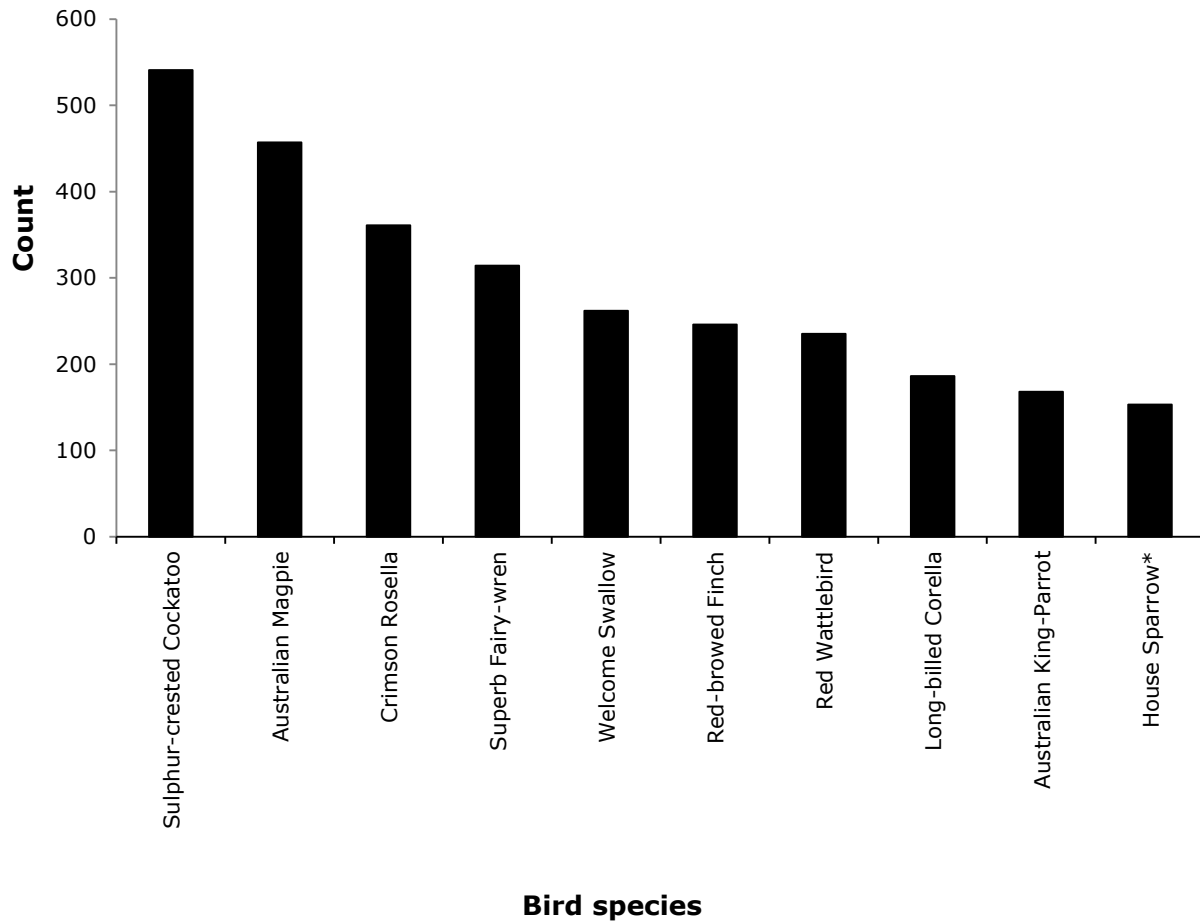


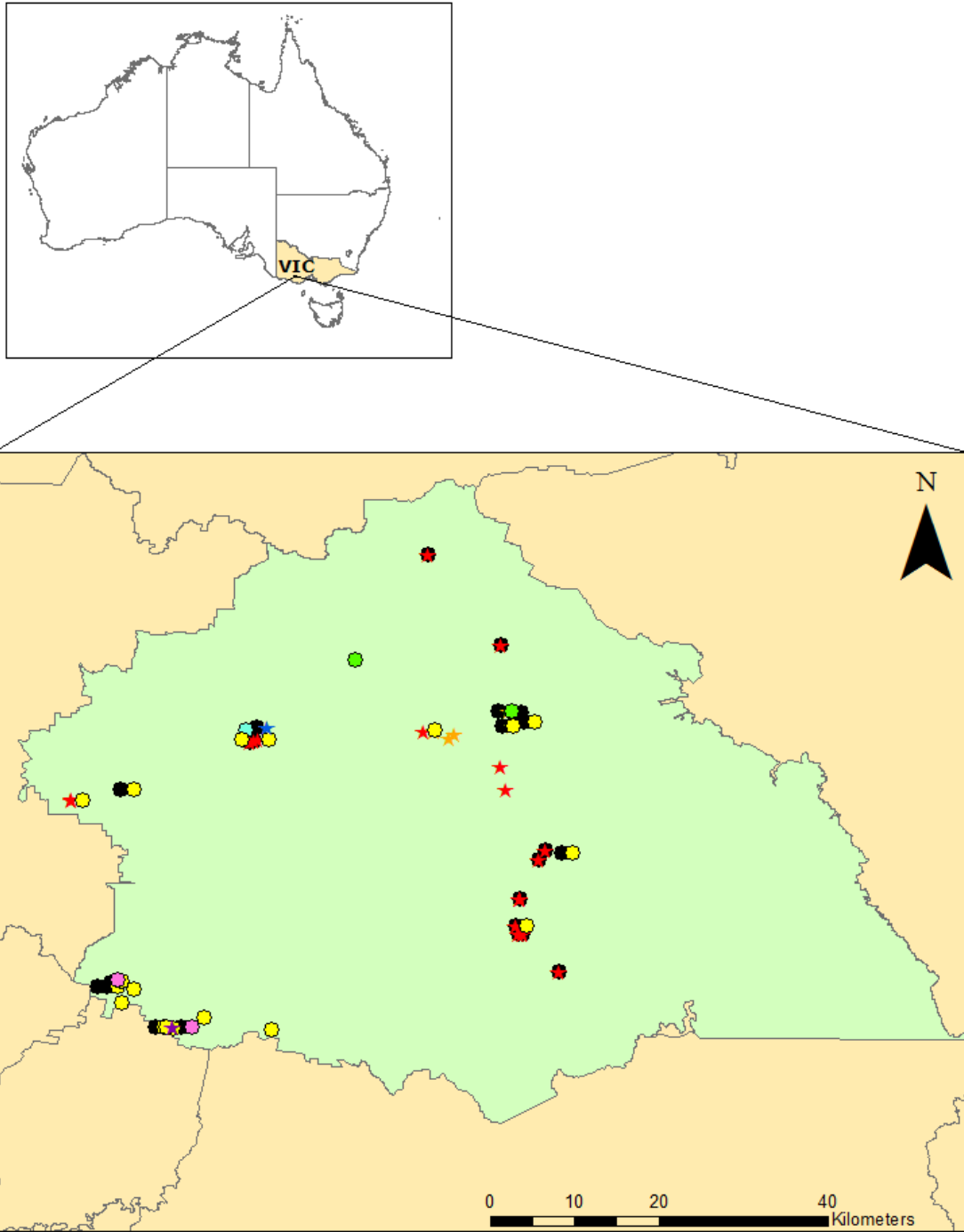
Figure 2: The 10 most commonly observed bird species within the Murrindindi Shire Council boundaries during the 2015 Aussie Backyard Bird Count. * indicates introduced species.

Introduced Species

Nine introduced bird species were observed and recorded within the Murrindindi Shire Council boundaries during the 2015 Aussie Backyard Bird Count (Table 2; Figure 3). The Common Blackbird, House Sparrow and the Common Myna were observed throughout the region, with the exception of to the east of Buxton and Marysville, Narbethong and within the central region surrounding Limestone and Glenburn (Figure 3). The five Indian Peafowl were observed in one location - Killingworth (Figure 3). The Common Starlings were observed in King Lake and Kinglake West, while the Common Greenfinches were detected in Alexandra and Highlands (Figure 3). The observations of the European Goldfinches were clustered around Whanregarwen and Alexandra (Figure 3). A high bird count relative to surveys conducted indicates that observers encountered 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 nine introduced bird species recorded within the Murrindindi Shire Council boundaries during the 2015 Aussie Backyard Bird Count.

Species	Bird Count	Proportion of total count (%)	Number of surveys detected in	Reporting rate (%)
House Sparrow	153	2.9	24	16.33
Common Myna	122	2.3	30	20.41
Common Blackbird	76	1.4	35	23.81
European Goldfinch	17	0.3	7	4.76
Eurasian Skylark	13	0.2	2	1.36
Common Starling	9	0.2	2	1.36
Indian Peafowl	5	0.1	1	0.68
Common Greenfinch	4	0.1	2	1.36
Song Thrush	2	0.04	2	1.36



Legend

- Common Blackbird
- Common Greenfinch
- Common Myna
- Common Starling
- Eurasian Skylark
- ★ European Goldfinch
- ★ House Sparrow
- ★ Indian Peafowl
- ★ Song Thrush
- Murrindindi Council boundary
- VIC

Figure 3: Distribution of the introduced bird species within the Murrindindi Shire Council boundaries during the 2015 Aussie Backyard Bird Count. Individuals counted in the same survey will have the same GPS co-ordinates.

Native Species of Management Concern

A large proportion of Australia's 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 (BirdLife Australia, 2015). This 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

Since the implementation of such projects, captive-bred Regent Honeyeaters have successfully been released into the wild boosting population numbers. One Critically Endangered Regent Honeyeater was observed within the Murrindindi Shire Council boundaries, located in the vicinity of Taggerty (Figure 4).

A number of Australian raptor species are threatened due to habitat destruction and fragmentation, loss of nesting hollows and declining prey availability. Two diurnal raptors listed as Vulnerable in Victoria were recorded within the Murrindindi Shire Council boundaries. The single Grey Goshawk was observed in Gobur, while the single Square-tailed Kite was observed in Alexandra (Figure 4). One nocturnal raptor listed as Endangered in Victoria was recorded during the 2015 Aussie Backyard Bird Count. The single Barking Owl was observed in Buxton (Figure 4).

Numerous Australian water birds 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, 2016). Three threatened duck species were detected during the 2015 Aussie Backyard Bird Count within the Murrindindi Shire Council boundaries. Thirteen Blue-billed Ducks, listed as Endangered in Victoria, were observed in the one survey located in Yarck (Figure 4). One Freckled Duck, listed as Endangered, was detected in Kinglake West (Figure 4). Two Hardheads, listed as Vulnerable, were detected in one survey and were located in Buxton (Figure 4).

A number of Near Threatened species were also recorded within the Murrindindi Shire Council boundaries. Two Pied Cormorants, another species of water bird, were detected in one survey located in Buxton (Figure 5). Five Azure Kingfishers were detected in four surveys in Kinglake West, Alexandra, Buxton and Killingworth (Figure 5). Ten Diamond Firetails were detected at Taggerty in one survey (Figure 5).

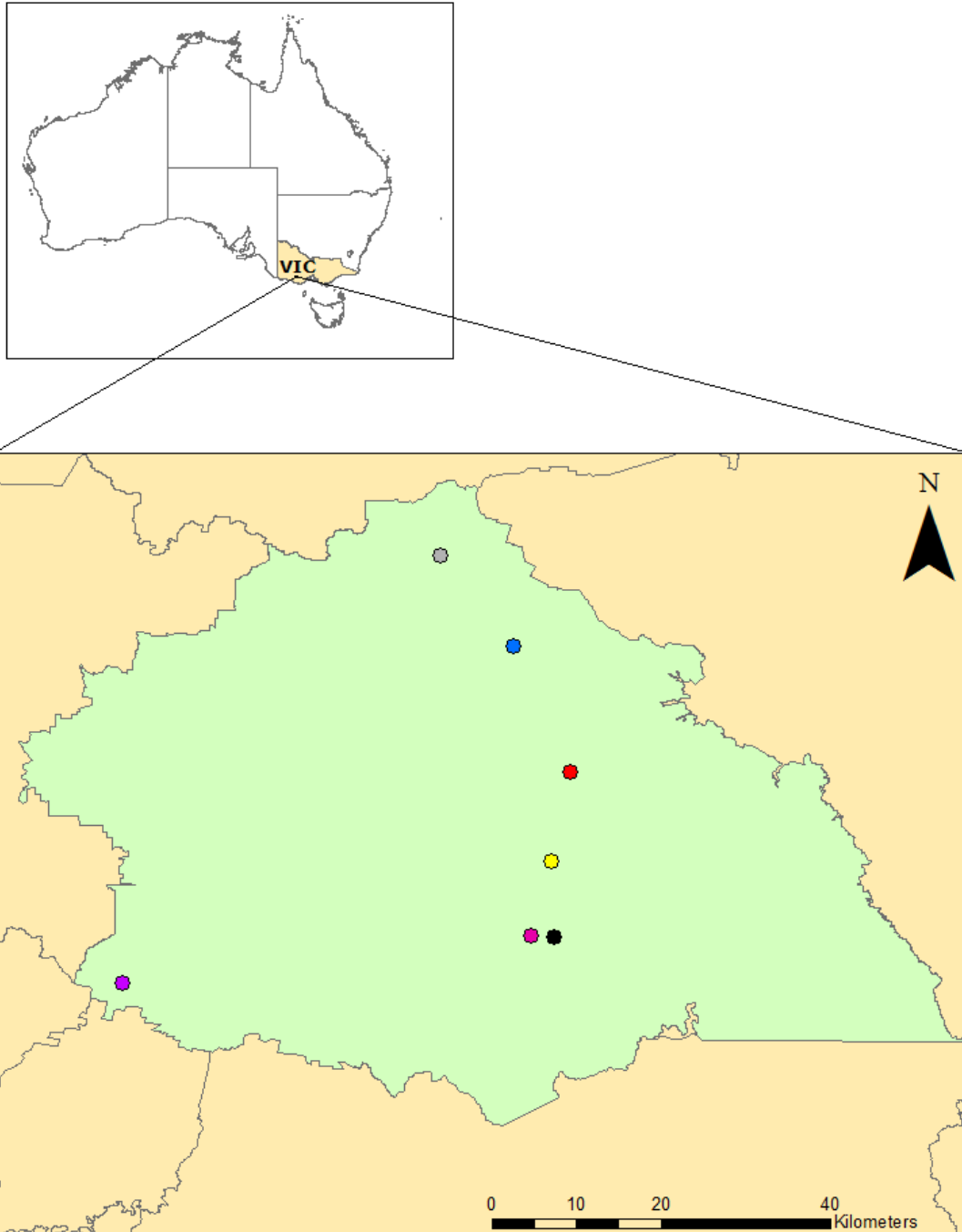
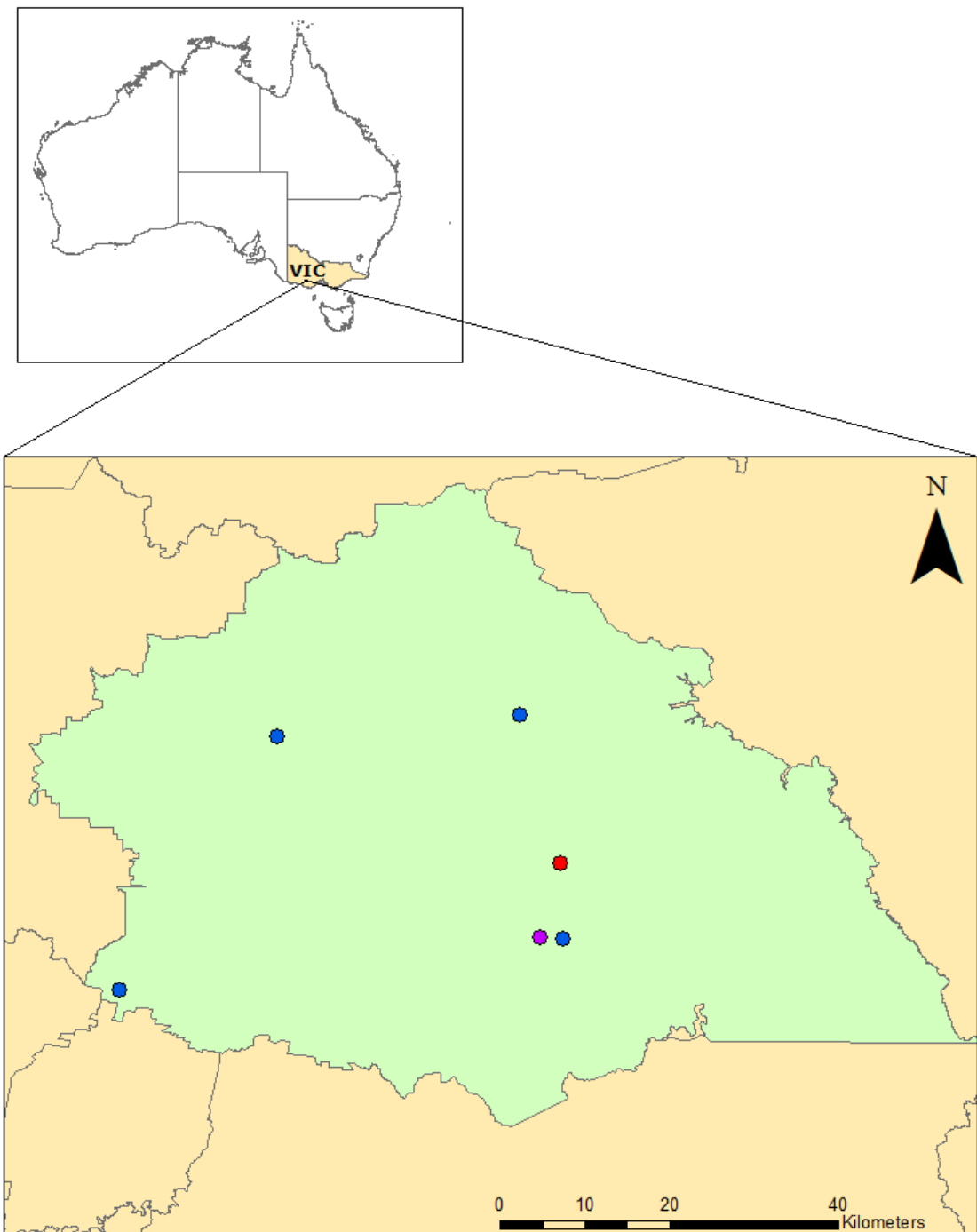


Figure 4: Distribution of the Critically Endangered (Cr End), Endangered (End) and Vulnerable (Vul) bird species within the Murrindindi Shire Council boundaries during the 2015 Aussie Backyard Bird Count. Individuals counted in the same survey will have the same GPS co-ordinates.



Legend

- Bird species**
- Azure Kingfisher (NT)
 - Diamond Firetail (NT)
 - Pied Cormorant (NT)
- Murrindindi Council boundary
 VIC

Figure 5: Distribution of the Near Threatened (NT) bird species within the Murrindindi Shire Council boundaries during the 2015 Aussie Backyard Bird Count. Individuals counted in the same survey will have the same GPS co-ordinates.

Data Limitations

An annual backyard bird survey occurring 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. 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. 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. Survey results are also subject to temporal biases as 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 the entire region specifically being analysed.

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).

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 bird 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 Eastern Spinebills and Superb 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 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 Birds in Backyards Program can provide you with some educational materials such as 'Backyard Birds of...' A4 posters (region dependant) and other handouts and activities.

The Program is also looking to work more intensively with some local councils on on-ground citizen science and community engagement projects. Note: funding may be required.

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

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