

Aussie Backyard Bird Count 2019 Results:

Shire of Toodyay

Robin Package

BirdLife Australia

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1. Introduction

1.1 Aussie Backyard Bird Count

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

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

Each year this natural passion is confirmed, with the Aussie Backyard Bird Count attracting significant interest from the public eager to be involved and help contribute to our growing knowledge of Australian birds. Public involvement 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 four years show that Australian backyards — in all their shapes and sizes — continue to attract a range of birds, giving us hope that even as the iconic Aussie backyard shrinks, many native birds can and do remain. Results from the Aussie Backyard Bird Count support the decline in Kookaburra numbers over the years while aggressive species such as the Noisy Miner appear to be increasing. With growing national and international concern for the welfare of these iconic Australian birds, citizen science projects such as the Aussie Backyard Bird Count can help provide an insight into how Aussie birds are faring and results can help formulate subsequent management decisions. The next Aussie Backyard Bird Count will take place from 19 - 25 October 2020.

1.2 Birds in Backyards

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 builds knowledge, skills and practical support to develop action-oriented responses to the decline of bird diversity. The Birds in Backyards Program began in 1998 and celebrated its 20th year as a national citizen science program in 2018. Underpinned by bird monitoring and habitat assessments, The Birds in Backyards Program 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 The Birds in Backyards Program 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 The Birds in Backyards Program 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, The Birds in Backyards Program 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 The Birds in Backyards Program to achieve education and conservation outcomes for our urban birds – let's get our communities taking action together!

2. 2019 Aussie Backyard Bird Count Statistics

The following statistics relate to the Shire of Toodyay region during the Aussie Backyard Bird Count that ran from the 21st to 27th October 2019:

- 22 observers participated in the bird count
- A total of 2,018 individual birds were observed and recorded during the week (Table 1)
- 78 bird species were recorded (Table 1)

Table 1: The complete species list and number of individuals observed within the Shire of Toodyay boundaries during the 2019 Aussie Backyard Bird Count.

Bird Species	Count	Bird Species	Count
Brown Honeyeater	253	Long-billed Corella	8
Carnaby's Black-Cockatoo (En)	241	Varied Sittella	8
Australian Ringneck	116	White-browed Scrubwren	8
Yellow-rumped Thornbill	109	Spiny-cheeked Honeyeater	7
Galah	101	Australian Shelduck	6
Australian Raven	93	Striated Pardalote	6
White-cheeked Honeyeater	85	Little Corella	5
Tree Martin	67	Magpie-lark	5
Silvereye	63	Pacific Black Duck	5
New Holland Honeyeater	57	Yellow-billed Spoonbill	5
Australian Magpie	54	Rufous Treecreeper	4
Singing Honeyeater	50	Black-faced Cuckoo-shrike	3
Western Corella	48	Brown Goshawk	3
Splendid Fairy-wren	45	Pied Butcherbird	3
Western Gerygone	35	Red-capped Robin	3
Red-capped Parrot	34	Tawny-crowned Honeyeater	3
Western Spinebill	34	White-faced Heron	3
Golden Whistler	33	Australasian Pipit	2
White-browed Babbler	30	Australian White Ibis	2
Little Crow	28	Eurasian Coot	2
Western Thornbill	26	House Sparrow *	2
Common Bronzewing	25	Jacky Winter	2
Red-tailed Black-Cockatoo (VU)	24	Little Black Cormorant	2
Rufous Whistler	24	Little Button-quail	2
Rainbow Bee-eater	23	Rufous Songlark	2
White-eared Honeyeater	23	Spotted Pardalote	2
Grey Teal	21	Australasian Grebe	1
Red Wattlebird	20	Australian Pelican	1
Scarlet Robin	20	Brush Bronzewing (PR4)	1
Laughing Kookaburra	16	Crested Pigeon	1
Grey Fantail	15	Diamond Dove	1
Laughing Dove *	14	Elegant Parrot	1

Australian Reed-Warbler	13	Grey-fronted Honeyeater	1
Willie Wagtail	13	Nankeen Kestrel	1
Weebill	12	Rock Dove *	1
Grey Shrike-thrush	11	Sacred Kingfisher	1
Welcome Swallow	10	Shy Heathwren	1
Brown-headed Honeyeater	8	Swamp Harrier	1
Chestnut-rumped Thornbill	8	White-breasted Robin	1

* Introduced species; † Naturalised species to Western Australia; RA = Rare; NT = Near Threatened; VU = Vulnerable; En = Endangered, CE = Critically Endangered; PR1 – PR3 = Poorly-known or data deficient but possibly threatened species; PR4 = Rare, near-threatened and other species in need of monitoring (based on IUCN listings; BirdLife Australia, 2019).

3. 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 most cases, but occasionally this can also result in a wildly inaccurate point in the case of a moving Wi-Fi hotspot. Most of the time this is not a problem or will be picked up by the user when they are looking at the map. If the app can't get a GPS fix and can't use Wi-Fi then it will fall back to using mobile towers, which can reduce accuracy to 1 km or even worse. The accuracy when submitting surveys on the website is much less predictable than the app. Most computers do not have a GPS so it has to rely on either Wi-Fi or the IP address. Wi-Fi can be quite accurate, but IP address-based locations are very rough – it basically just identifies which city you live in. If you are in a rural area sometimes it will just put you in the nearest major city/centre.

The skill and experience of observers conducting backyard surveys in correctly identifying birds will vary and also influence the validity of the survey results. The Aussie Backyard Bird Count

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 misidentifications 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).

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

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

- Hard copy materials such as A4 Backyard Birds of 2019 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 Urban Birds Program Manager Dr. Holly Parsons – holly.parsons@birdLife.org.au.

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