

Aussie Backyard Bird Count 2015 Results:

Wingecarribee 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 Aussie Backyard Bird Count Statistics

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

- 70 participants registered and submitted checklists, with 93 observers taking part in the surveys
- 189 checklists were submitted ranging between 1 and 18 checklists submitted per observer (average of 2.7 per registered participant)
- The combined duration that observers surveyed over was 59 hours and 57 minutes
- Bird recordings ranged from 1 to 316 per registered participant, with an average of 60 birds recorded per participant
- A total of 4,182 individual birds were observed and recorded during the week (Figure 1)
- 117 bird species were recorded (Table 1)
- The reporting rate for species (percentage of surveys a species was detected in) ranged from 79.37% to 0.53% (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).

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

Bird species	Count	Reporting rate (%)	Bird species	Count	Reporting rate (%)
Crimson Rosella	580	79.37	Laughing Kookaburra	59	21.16
Sulphur-crested Cockatoo	518	46.03	Common Starling*	58	11.11
Australian Magpie	263	53.97	Welcome Swallow	58	12.17
Australian Wood Duck	249	17.46	Red-browed Finch	44	4.23
Noisy Miner	205	26.98	Eastern Spinebill	43	10.58
Australian King-Parrot	150	34.39	Satin Bowerbird	42	11.11
Common Myna*	132	28.57	Superb Fairy-wren	42	7.41
Little Corella	115	15.34	Rainbow Lorikeet	38	7.94
Pied Currawong	114	28.04	Pacific Black Duck	32	5.29
Galah	109	23.28	Eastern Koel	24	7.94
Red Wattlebird	105	24.87	Eastern Whipbird	23	7.94
Yellow-tailed Black-Cockatoo	96	10.58	Little Wattlebird	23	4.23
Crested Pigeon	95	21.16	Grey Fantail	21	7.41
Eastern Rosella	93	17.46	Tree Martin	21	3.70
Australian Raven	87	24.34	White-faced Heron	19	6.35
House Sparrow*	86	11.11	Grey Teal	18	1.59
Magpie-lark	86	24.87	Brown Thornbill	17	5.29
Common Blackbird*	63	19.05	White-winged Chough	17	2.12

Bird species	Count	Reporting rate (%)	Bird species	Count	Reporting rate (%)
Regent Honeyeater (Cr End)	16	2.12	Australasian Grebe	3	1.06
Yellow-faced Honeyeater	16	3.70	Australian White Ibis	3	1.06
Beautiful Firetail	15	0.53	Dollarbird	3	1.06
Chestnut Teal	15	0.53	Eastern Yellow Robin	3	1.06
Eurasian Coot	15	2.65	Grey Currawong	3	1.06
Grey Butcherbird	15	7.41	Long-billed Corella	3	1.06
Rufous Whistler	14	3.70	Wedge-tailed Eagle	3	1.06
Hardhead	13	1.59	White-eared Honeyeater	3	1.06
Purple Swamphen	13	3.70	Bell Miner	2	0.53
Striated Pardalote	13	4.76	Black-faced Monarch	2	0.53
Topknot Pigeon	13	3.70	Blue-faced Honeyeater	2	0.53
Grey Shrike-thrush	12	4.23	Eastern Great Egret	2	0.53
Little Raven	12	3.17	Golden Whistler	2	1.06
Masked Lapwing	11	3.17	Rufous Fantail	2	0.53
Silvereye	11	3.17	Spotted Dove*	2	1.06
Spotted Pardalote	11	3.17	White-cheeked Honeyeater	2	0.53
Wonga Pigeon	11	2.65	White-headed Pigeon	2	0.53
Black-faced Cuckoo-shrike	10	4.76	White-throated Gerygone	2	0.53
Dusky Moorhen	10	2.65	Yellow-rumped Thornbill	2	0.53
Gang-gang Cockatoo (Vul)	10	2.12	Australasian Bittern (End)	1	0.53
Willie Wagtail	10	4.23	Bassian Thrush	1	0.53
Fan-tailed Cuckoo	9	3.70	Black-chinned Honeyeater (Vul)	1	0.53
Noisy Friarbird	7	1.06	Black-winged Stilt	1	0.53
Pied Butcherbird	7	2.65	Brown Falcon	1	0.53
Superb Lyrebird	7	2.65	Brown Treecreeper (Vul)	1	0.53
White-throated Treecreeper	7	3.70	Cockatiel	1	0.53
New Holland Honeyeater	6	2.65	Crescent Honeyeater	1	0.53
Blue-billed Duck	5	0.53	Diamond Dove	1	0.53
Dusky Woodswallow	5	0.53	Grey Goshawk	1	0.53
Lewin's Honeyeater	5	2.12	Hoary-headed Grebe	1	0.53
Olive-backed Oriole	5	2.65	Little Black Cormorant	1	0.53
White-necked Heron	5	2.12	Nankeen Kestrel	1	0.53
Bar-shouldered Dove	4	1.06	Pacific Golden Plover	1	0.53
Brown Cuckoo-Dove	4	1.59	Peregrine Falcon	1	0.53
Brown Gerygone	4	0.53	Restless Flycatcher	1	0.53
Brush Bronzewing	4	0.53	Satin Flycatcher	1	0.53
Channel-billed Cuckoo	4	1.59	Shining Bronze-Cuckoo	1	0.53
Common Bronzewing	4	1.59	Southern Boobook	1	0.53
Sacred Kingfisher	4	1.59	Variegated Fairy-wren	1	0.53
Varied Sittella	4	0.53	Wood Sandpiper	1	0.53
White-browed Scrubwren	4	2.12			

* Introduced species; Cr End = Critically Endangered; End = Endangered; Vul = Vulnerable (NSW Government, 2015)

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Distribution Map

The bird observations recorded within the boundaries of the Wingecarribee Shire Council during the 2015 Aussie Backyard Bird Count are largely scattered throughout the region (Figure 1). However, there were no observations made in the Yerrinbool or North West districts or in the suburbs of Belanglo or Canyonleigh (Figure 1).

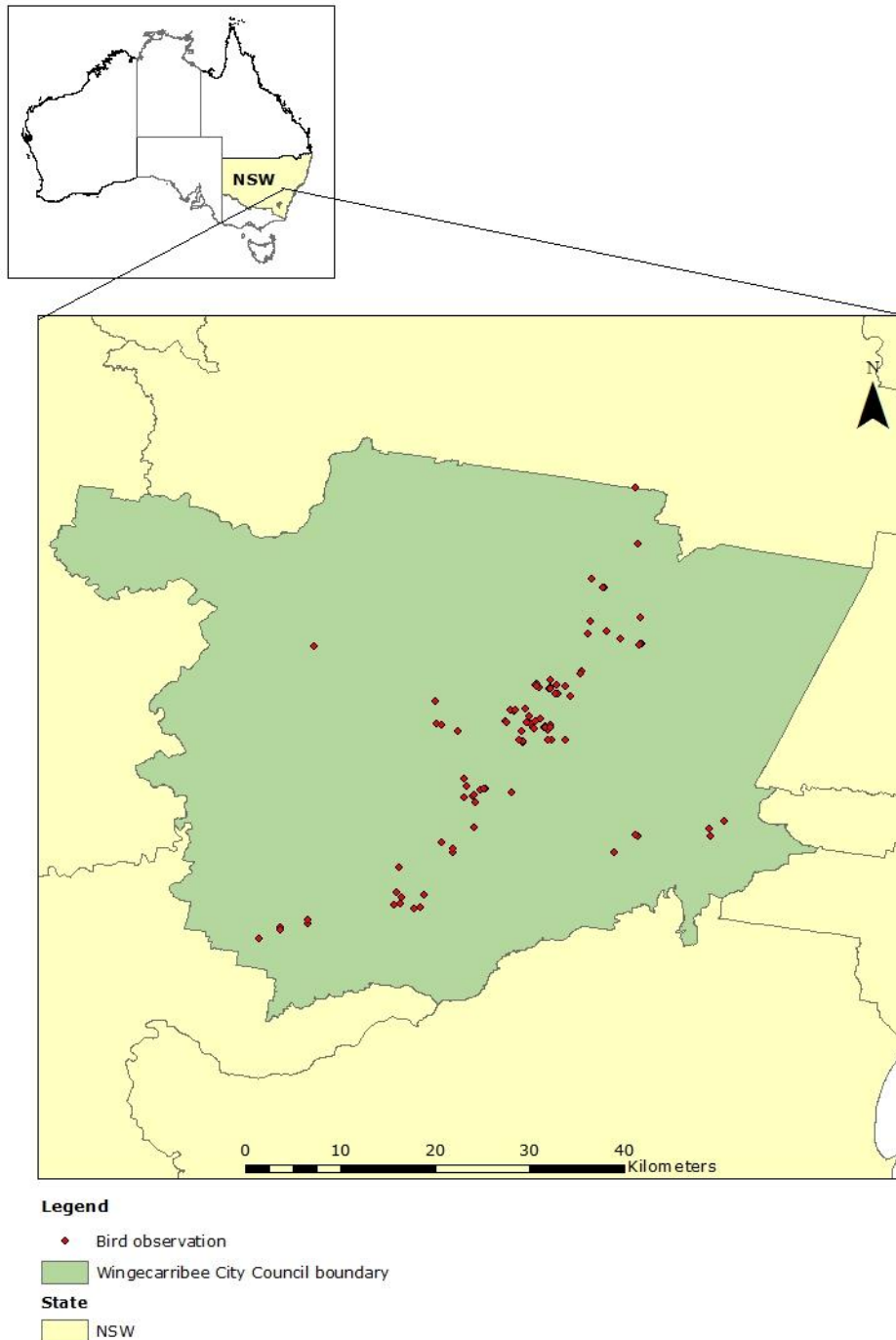


Figure 1: Bird observations recorded within the Wingecarribee Shire Council boundaries during the 2015 Aussie Backyard Bird Count. Bird observations recorded in a single survey appear as one dot as are assigned the same GPS co-ordinates.

Species List: Least Common

The 21 least commonly observed bird species recorded within the Wingecarribee Shire Council boundaries all corresponded to a single observation and included:

- Australasian Bittern (End)
- Bassian Thrush
- Black-chinned Honeyeater (Vul)
- Black-winged Stilt
- Brown Falcon
- Brown Treecreeper (Vul)
- Cockatiel
- Crescent Honeyeater
- Diamond Dove
- Grey Goshawk
- Hoary-headed Grebe
- Little Black Cormorant
- Nankeen Kestrel
- Pacific Golden Plover
- Peregrine Falcon
- Restless Flycatcher
- Satin Flycatcher
- Shining Bronze-cuckoo
- Southern Boobook
- Variegated Fairy-wren
- Wood Sandpiper

Three of the least detected species are introduced species (denoted by *), while one species, the Australasian Bittern, is listed as Endangered and two species, the Black-chinned Honeyeater and Brown Treecreeper, are listed as Vulnerable in New South Wales (NSW Government, 2015). One of the least commonly detected species is nocturnal (the Southern Boobook), six species are water birds and five species are raptors.

Species List: Most Common

The 21 most commonly observed bird species recorded within the Wingecarribee Shire Council boundaries ranged from 58 to 580 observations and included both native and introduced species (Figure 2). The Crimson Rosella was the most commonly detected species within the Wingecarribee Shire Council boundaries closely followed by the Sulphur-crested Cockatoo. Counts of the top two most commonly detected species was double that of the individuals counted for the third most commonly detected species – the Australian Magpie (Figure 2). All 21 species are considered to have secure populations within New South Wales.

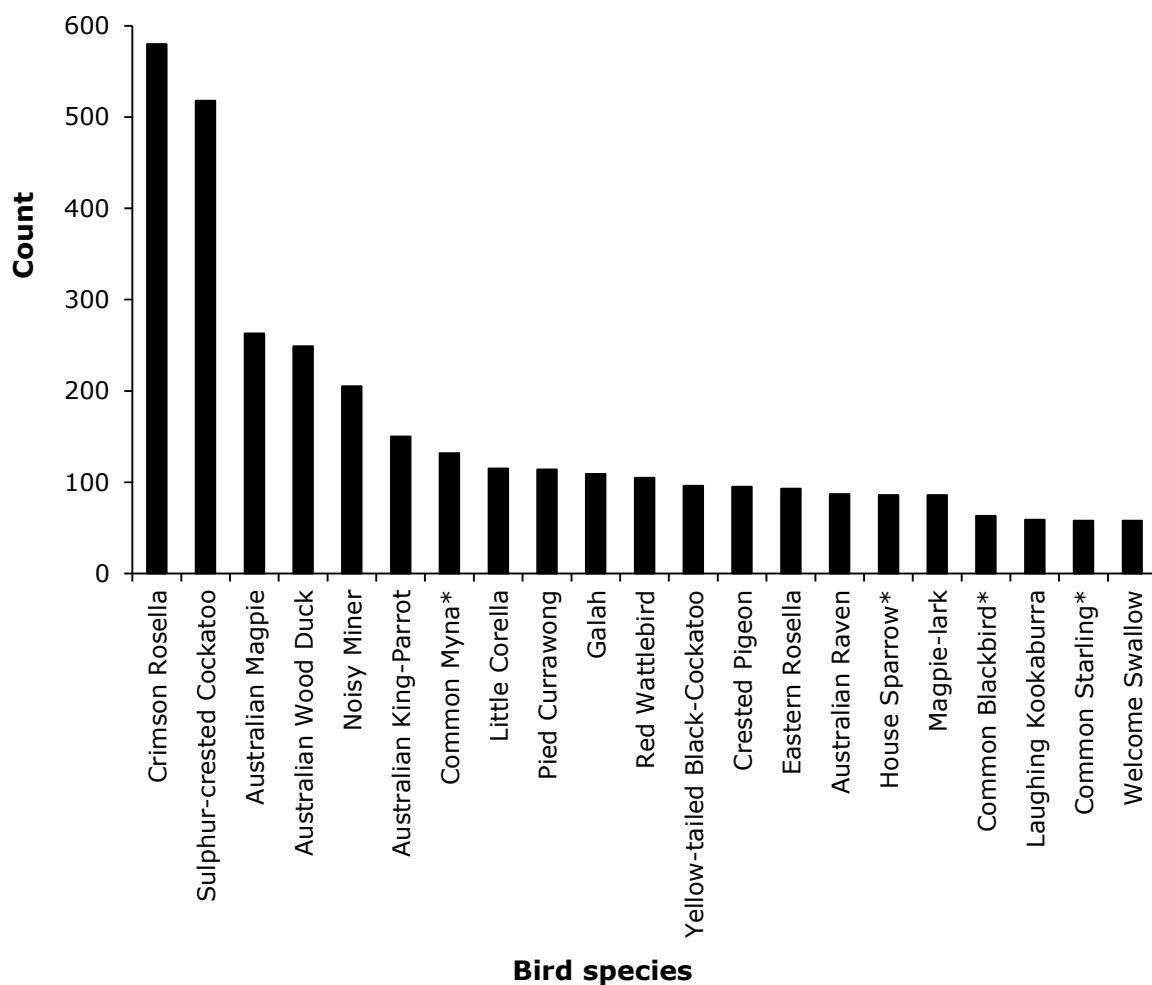
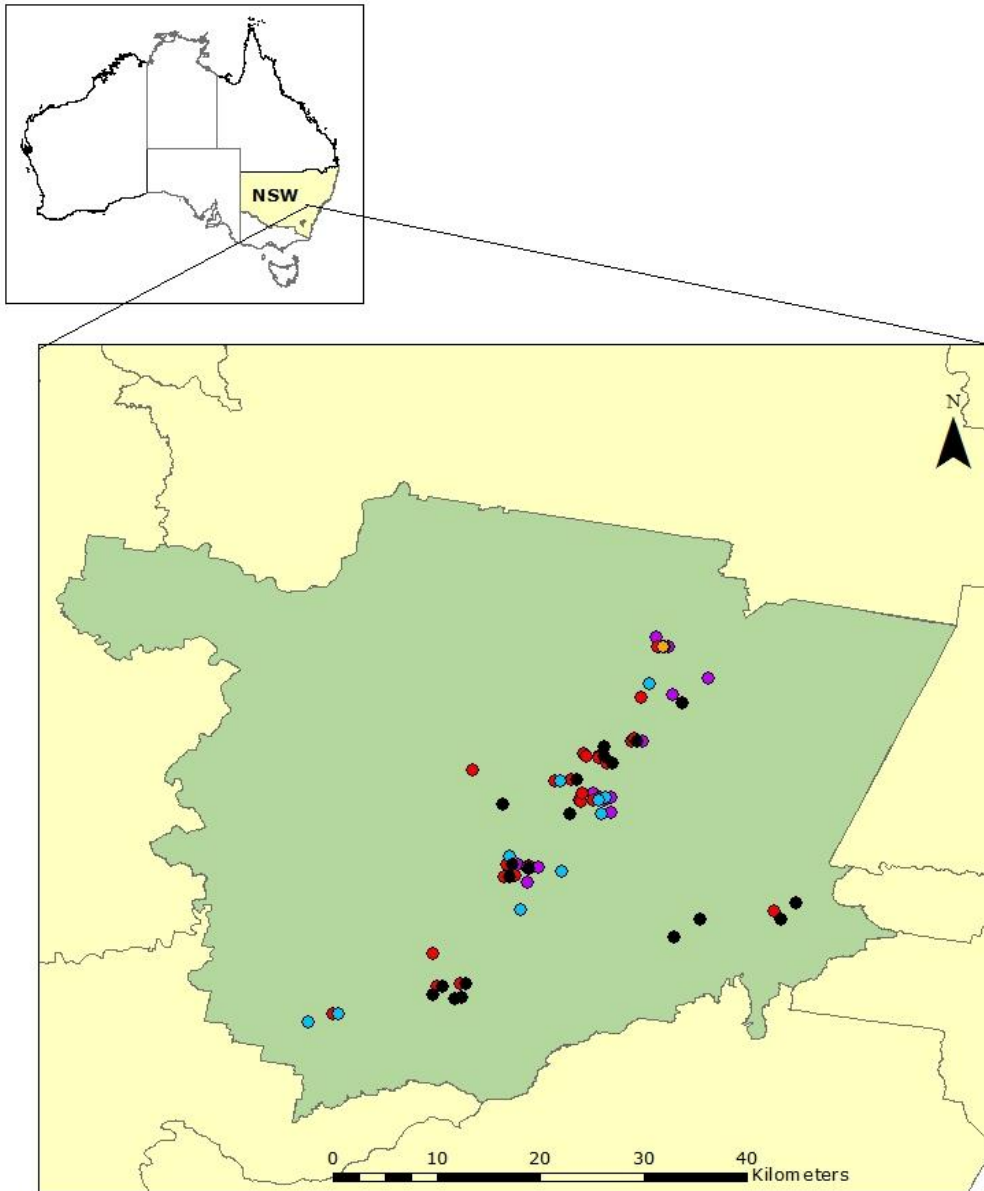


Figure 2: The 21 most commonly observed bird species within the Wingecarribee Shire Council boundaries during the 2015 Aussie Backyard Bird Count. * indicates introduced species.

Introduced Species

Five introduced bird species were observed and recorded within the Wingecarribee Shire Council boundaries during the 2015 Aussie Backyard Bird Count (Figure 3; Table 2). All five introduced species overlap in their distribution and were observed largely throughout the centre of the region (Figure 3). There were no introduced species observed within the North West district or in the suburbs of Belanglo, Canyonleigh, Wattle Ridge, Hill Top, Balmoral and Colo Vale (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).



- Legend**
- | | |
|---|---|
| Introduced species | Wingecarribee City Council boundary |
| Common Blackbird | State |
| Common Myna | NSW |
| Common Starling | |
| House Sparrow | |
| Spotted Dove | |

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

Table 2: Survey statistics for the five introduced bird species recorded within the Wingecarribee Shire Council boundaries during the 2015 Aussie Backyard Bird Count.

Species	Bird Count	Proportion of total count (%)	Number of surveys detected in	Reporting rate (%)
Common Blackbird	63	1.5	36	19.05
Common Myna	132	3.2	54	28.57
Common Starling	58	1.4	21	11.11
House Sparrow	86	2.1	21	11.11
Spotted Dove	2	0.05	2	1.06

Native Species of Management Concern

Australia has numerous threatened waterbirds, with the Australasian Bittern having a Federal listing of Endangered. The substantial decline in Australasian Bitterns over the last 20 years is attributed to the loss of suitable habitat due to degradation and drainage of natural wetlands as well as prolonged droughts (BirdLife Australia, 2016). In 2007, BirdLife Australia established the *Bittern Project* to determine factors causing the decline of the Australasian and Australian Little Bitterns and to facilitate the long-term survival of Bitterns as well as other bird species inhabiting freshwater wetlands (BirdLife Australia, 2016). Additionally, BirdLife Australia has implemented the *Bittern in Rice Project* which involves monitoring individuals and data collection as well as promoting community awareness, education and engagement (BirdLife Australia, 2016). The one Australasian Bittern detected within the Wingecarribee Shire was located in the Bundadon-Exeter region (Figure 4).

Numerous species of Australian parrots are also threatened across Australia. This includes the Gang-gang Cockatoo which is listed as Vulnerable in New South Wales. Across Australia, each species of parrot faces its own set of conservation challenges. However, all parrot populations are experiencing a decline due to the lack of suitable nesting sites, particularly tree hollows which parrots are dependent on, and reliable food access. Habitat loss and destruction is decreasing the number of tree hollows available for threatened parrot species to nest in with increasing competition for the remaining tree hollows coming from more aggressive bird species and marsupials (BirdLife Australia, 2013). Ten Gang-gang Cockatoos were detected across four surveys located in Bowral, Yerrinbool and Hill Top during the 2015 Aussie Backyard Bird Count within Wingecarribee Shire (Figure 4).

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 such as the Black-chinned Honeyeater and the Brown

Treecreeper, both of which are listed as Vulnerable in New South Wales (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. Sixteen Regent Honeyeaters were observed across four surveys conducted by one person within the Wingecarribee Shire and were located in Bowral (Figure 4). The two Vulnerable woodland bird species, the Black-chinned Honeyeater and the Brown Treecreeper, were recorded in the Bowral/Mittagong region with one individual being detected for both species (Figure 4).

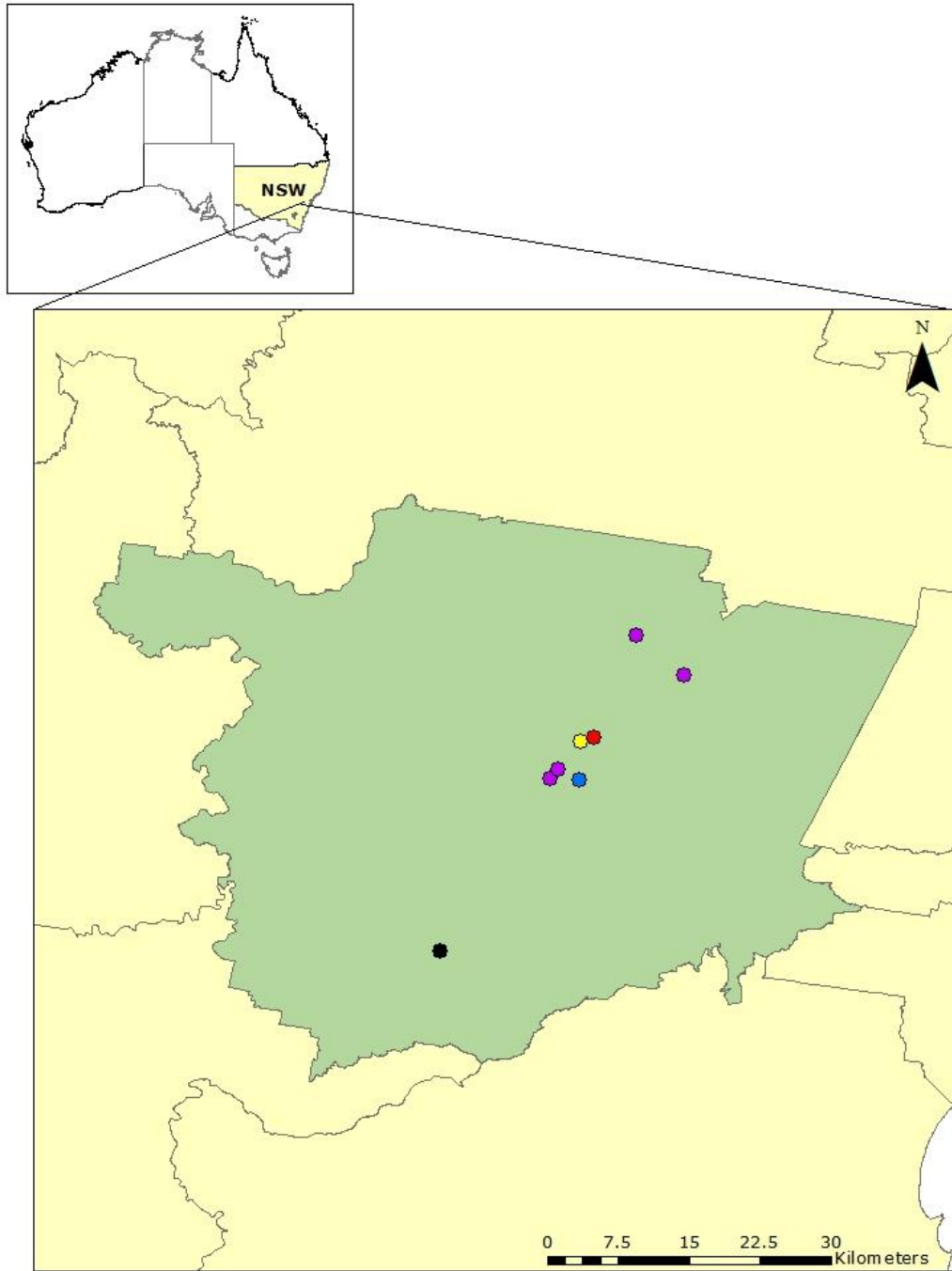


Figure 4: Distribution of the Critically Endangered (End), Endangered (End) and Vulnerable (Vul) bird species within the Wingecarribee Shire Council boundaries during the 2015 Aussie Backyard Bird Count. Individuals counted in the same survey will have the same GPS co-ordinates.

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

References

- BirdLife Australia (2013). *Parrots in Peril*. Retrieved from <http://birdlife.org.au/australian-birdlife/detail/parrots-in-peril> (accessed 28/01/2016).
- BirdLife Australia (2015). *Woodlands Birds for Biodiversity*. Retrieved from <http://birdlife.org.au/projects/woodland-birds-for-biodiversity> (accessed 02/02/2016).
- BirdLife Australia (2016). *Bittern Project*. Retrieved from <http://birdlife.org.au/projects/bittern-project> (accessed 02/02/2016).
- Cannon, A. (1999). The significance of private gardens for bird conservation. *Bird Conservation International*, **9**: 287-297.
- 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.
- NSW Government (2015). *Threatened Species*. Retrieved from <http://www.environment.nsw.gov.au/threatenedspecies/index.htm> (accessed 28/01/2016).
- Spurr, E.B. (2012). New Zealand garden bird survey – analysis of the first four years. *The New Zealand Journal of Ecology*, **36**: 1-13.