

# AUSSIE BACKYARD BIRD COUNT

2021 Results for  
Wingecarribee Shire Council

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18-24 October 2021



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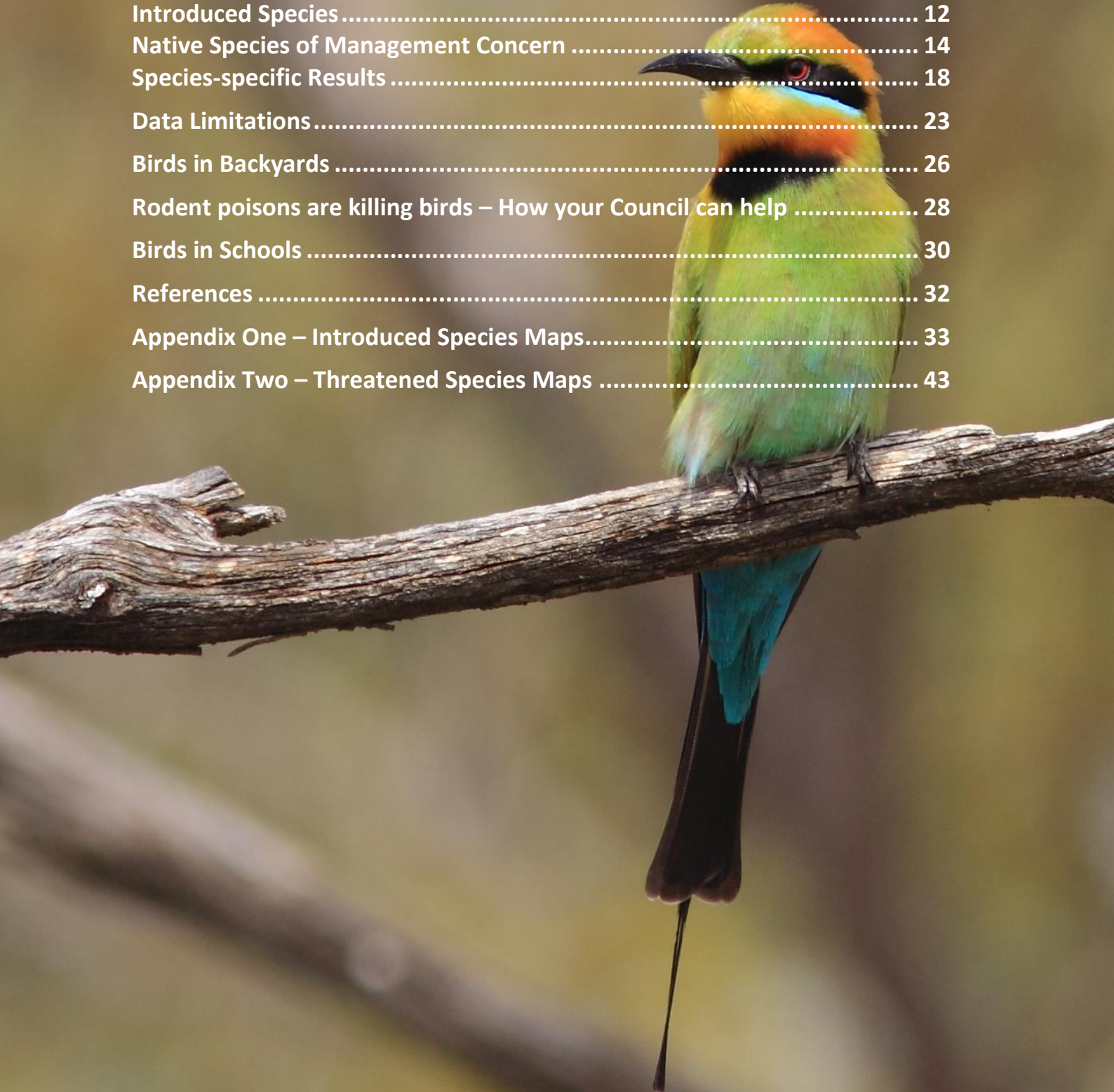
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# Contents

- Introduction ..... 4
- 2021 Aussie Backyard Bird Count Results ..... 5
- Count Summary ..... 5
- Survey Distribution ..... 9
- Least Common Species ..... 10
- Most Common Species ..... 10
- Introduced Species ..... 12
- Native Species of Management Concern ..... 14
- Species-specific Results ..... 18
- Data Limitations ..... 23
- Birds in Backyards ..... 26
- Rodent poisons are killing birds – How your Council can help ..... 28
- Birds in Schools ..... 30
- References ..... 32
- Appendix One – Introduced Species Maps ..... 33
- Appendix Two – Threatened Species Maps ..... 43



# Introduction



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 17 - 23 October 2022**

# 2021 Aussie Backyard Bird Count Results

## Count Summary

The following statistics summarise the results of the 2021 Aussie Backyard Bird Count for the **Wingecarribee Shire Council**. The count ran from the **18<sup>th</sup> to 24<sup>th</sup> October 2021**.

- **582** observers participated in the bird count, submitting **1,163** checklists.
- Submitted checklists ranged from between **1** and **23** per registered user (average of **2.91** per registered user).
- Observers counted birds for a combined duration of **366** hours and **24** minutes.
- Observers recorded a total of **26,384** individual birds during Bird Week.
- **146** bird species were recorded (Table 2).
- The reporting rate for individual species (percentage of total surveys a species was detected in) ranged from **0.09 %** (representing a single observation) to **68.27 %** (Table 2). Low reporting rates for species with high counts indicate that many birds of these species were reported within single surveys (i.e., seen in family groups or large flocks).

**Table 1:** Comparison of summary statistics from the 2018, 2019, 2020, and 2021 Aussie Backyard Bird Counts for the Wingecarribee Shire Council. Additional council-level data vetting was carried out in 2020 and 2021, so species numbers may differ markedly for some councils in these years compared to others, despite similar or increased participation.

	Year			
	2018	2019	2020	2021
Number of observers	261	376	391	582
Total bird count	9,284	14,280	19,156	26,384
Total surveys	423	595	798	1,163
Total species	143	175	163	146
Minimum checklists per user	1	1	1	1
Maximum checklists per user	11	11	10	23
Average checklists per user	2.32	2.74	2.61	2.91
Survey length (hours)	136.02	191.58	250.5	366.4

**Table 2:** Total count and reporting rate (%) of all 146 bird species observed within the Wingecarribee Shire Council boundaries during the 2021 Aussie Backyard Bird Count.

\* Introduced species; RA = Rare; NT = Near Threatened; VU = Vulnerable; En = Endangered, CE = Critically Endangered (based on IUCN listings; BirdLife Australia, 2019).

Bird Species	Count	Reporting Rate (%)	Bird Species	Count	Reporting Rate (%)
Crimson Rosella	2825	68.27	Eastern Yellow Robin	24	1.20
Sulphur-crested Cockatoo	2666	53.22	Glossy Black-Cockatoo (VU)	24	0.95
Australian Magpie	2397	63.71	Spotted Dove *	21	1.12
Noisy Miner	1758	34.48	Grey Teal	21	0.17
Australian Wood Duck	1560	16.17	White-eared Honeyeater	20	0.69
Little Corella	1343	19.95	Australian White Ibis	19	0.52
Galah	1306	30.27	Buff-rumped Thornbill	19	0.26
Pied Currawong	1233	39.12	White-browed Treecreeper	18	0.43
Australian King-Parrot	974	31.38	Brown Cuckoo-Dove	17	0.69
Australian Raven	796	30.87	Australasian Pipit	17	0.34
Eastern Rosella	675	21.15	Channel-billed Cuckoo	14	0.77
Magpie-lark	645	28.12	Hardhead	14	0.43
Red Wattlebird	638	22.27	Rock Dove *	14	0.43
Common Myna *	583	16.51	Australian Pelican	12	0.86
Pacific Black Duck	534	9.37	Tawny Frogmouth	11	0.34
Laughing Kookaburra	502	23.82	White-headed Pigeon	10	0.52
Crested Pigeon	497	20.03	Little Black Cormorant	10	0.43
Satin Bowerbird	432	17.20	Black Swan	10	0.26
Superb Fairy-wren	365	12.21	White-necked Heron	10	0.26
House Sparrow *	339	4.56	Little Grassbird	10	0.09
Welcome Swallow	306	7.05	Little Raven	10	0.09
Little Wattlebird	224	9.11	Australasian Figbird	9	0.52
Red-browed Finch	187	2.49	Blue-billed Duck (VU)	8	0.09
Willie Wagtail	168	8.08	Little Pied Cormorant	7	0.52
Common Blackbird *	158	6.53	Great Pied Cormorant	7	0.34
Grey Butcherbird	157	9.63	Little Eagle (VU)	6	0.52
Silvereye	146	1.55	Brown Falcon	6	0.43
Common Starling *	142	4.30	Nankeen Kestrel	6	0.43
Eastern Spinebill	124	6.96	White-throated Gerygone	6	0.34
Rainbow Lorikeet	118	4.13	Large-billed Scrubwren	6	0.17

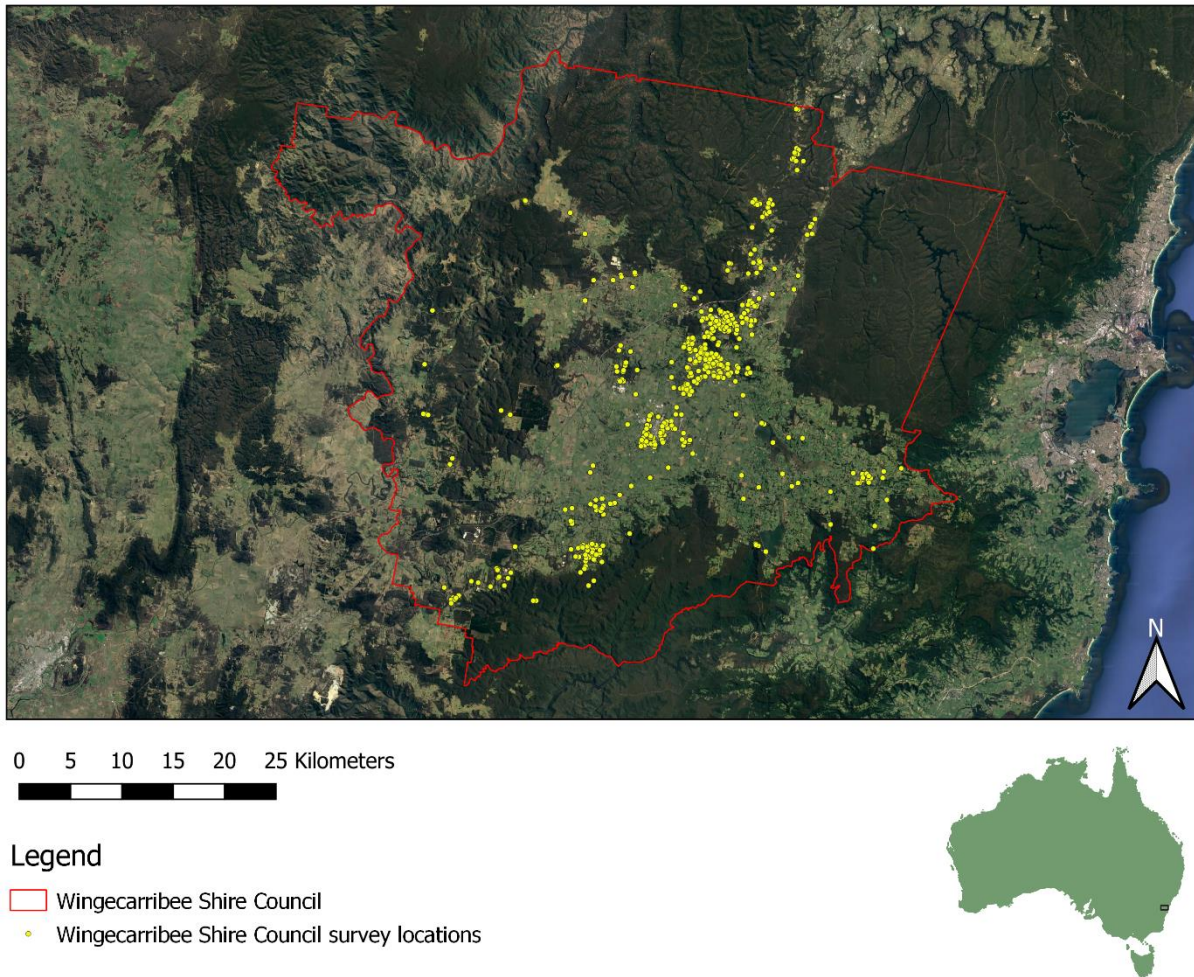
Yellow-faced Honeyeater	114	4.90	Olive-backed Oriole	5	0.43
Grey Fantail	84	3.35	Jacky Winter	5	0.34
White-browed Scrubwren	77	3.18	Wedge-tailed Eagle	5	0.34
Masked Lapwing	77	3.10	Brown-headed Honeyeater	5	0.26
Eurasian Coot	75	1.55	Great Cormorant	5	0.26
Brown Thornbill	74	3.44	White-naped Honeyeater	5	0.26
Eastern Koel	72	5.25	Brown Goshawk	4	0.34
Dusky Moorhen	70	1.55	Rufous Fantail	4	0.26
Spotted Pardalote	69	3.70	Yellow Thornbill	4	0.26
Grey Shrike-thrush	69	3.01	Red-browed Treecreeper	4	0.17
Long-billed Corella	61	1.55	Australasian Grebe	3	0.26
Eastern Whipbird	58	3.96	Common Cicadabird	3	0.26
Purple Swamphen	58	2.15	Shining Bronze-Cuckoo	3	0.26
Yellow-rumped Thornbill	56	1.63	Southern Boobook	3	0.26
Common Bronzewing	55	2.15	Bar-shouldered Dove	3	0.17
Yellow-tailed Black-Cockatoo	55	2.15	Rockwarbler	3	0.17
Brown Gerygone	53	1.72	Scarlet Honeyeater	3	0.17
White-winged Chough	52	1.03	Muscovy Duck *	3	0.09
Double-barred Finch	50	0.60	Spotted Quail-thrush	3	0.09
Domestic Duck *	49	0.86	Stubble Quail	3	0.09
White-throated Treecreeper	47	2.92	Azure Kingfisher	2	0.17
Black-faced Cuckoo-shrike	42	2.49	Eurasian Skylark *	2	0.17
New Holland Honeyeater	42	2.15	Peregrine Falcon	2	0.17
Dusky Woodswallow (VU)	40	1.38	Straw-necked Ibis	2	0.17
Gang-gang Cockatoo	39	1.98	White-bellied Sea-Eagle (VU)	2	0.17
Striated Thornbill	39	1.20	Australian Shelduck	2	0.09
Bell Miner	37	0.86	Black-fronted Dotterel	2	0.09
Oriental Dollarbird	35	2.06	Brush Cuckoo	2	0.09
Noisy Friarbird	34	1.81	Diamond Firetail (VU)	2	0.09
Superb Lyrebird	33	2.24	Domestic Goose *	2	0.09
Sacred Kingfisher	33	1.89	Leaden Flycatcher	2	0.09
Wonga Pigeon	32	1.63	Variiegated Fairy-wren	2	0.09
Striated Pardalote	31	1.38	Yellow-throated Scrubwren	2	0.09
White-faced Heron	30	2.15	Australian Hobby	1	0.09
Topknot Pigeon	30	1.38	Barn Owl	1	0.09
Golden Whistler	29	1.81	Beautiful Firetail	1	0.09
Weebill	29	0.43	Brown Quail	1	0.09
Rufous Whistler	28	1.46	Powerful Owl (VU)	1	0.09
Australian Reed-Warbler	28	0.26	Rose Robin	1	0.09

Red-rumped Parrot	26	0.86	Satin Flycatcher	1	0.09
Musk Duck	26	0.52	Scarlet Robin (VU)	1	0.09
Fan-tailed Cuckoo	25	1.98	Swamp Harrier	1	0.09
Lewin's Honeyeater	25	1.12	Tree Martin	1	0.09

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## Survey Distribution



**Figure 1:** Bird observations recorded within Wingecarribee Shire Council boundaries during the 2021 Aussie Backyard Bird Count. Bird observations that were recorded in a single survey overlap due to having the same GPS coordinates, so each yellow circle represents a single complete survey.

## Least Common Species

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

- Australian Hobby
- Australian Shelduck
- Barn Owl
- Beautiful Firetail
- Black-fronted Dotterel
- Blue-billed Duck (VU)
- Brown Quail
- Brush Cuckoo
- Diamond Firetail (VU)
- Domestic Goose \*
- Leaden Flycatcher
- Little Grassbird
- Little Raven
- Muscovy Duck \*
- Powerful Owl (VU)
- Rose Robin
- Satin Flycatcher
- Scarlet Robin (VU)
- Spotted Quail-thrush
- Stubble Quail
- Swamp Harrier
- Tree Martin
- Variegated Fairy-wren
- Yellow-throated Scrubwren

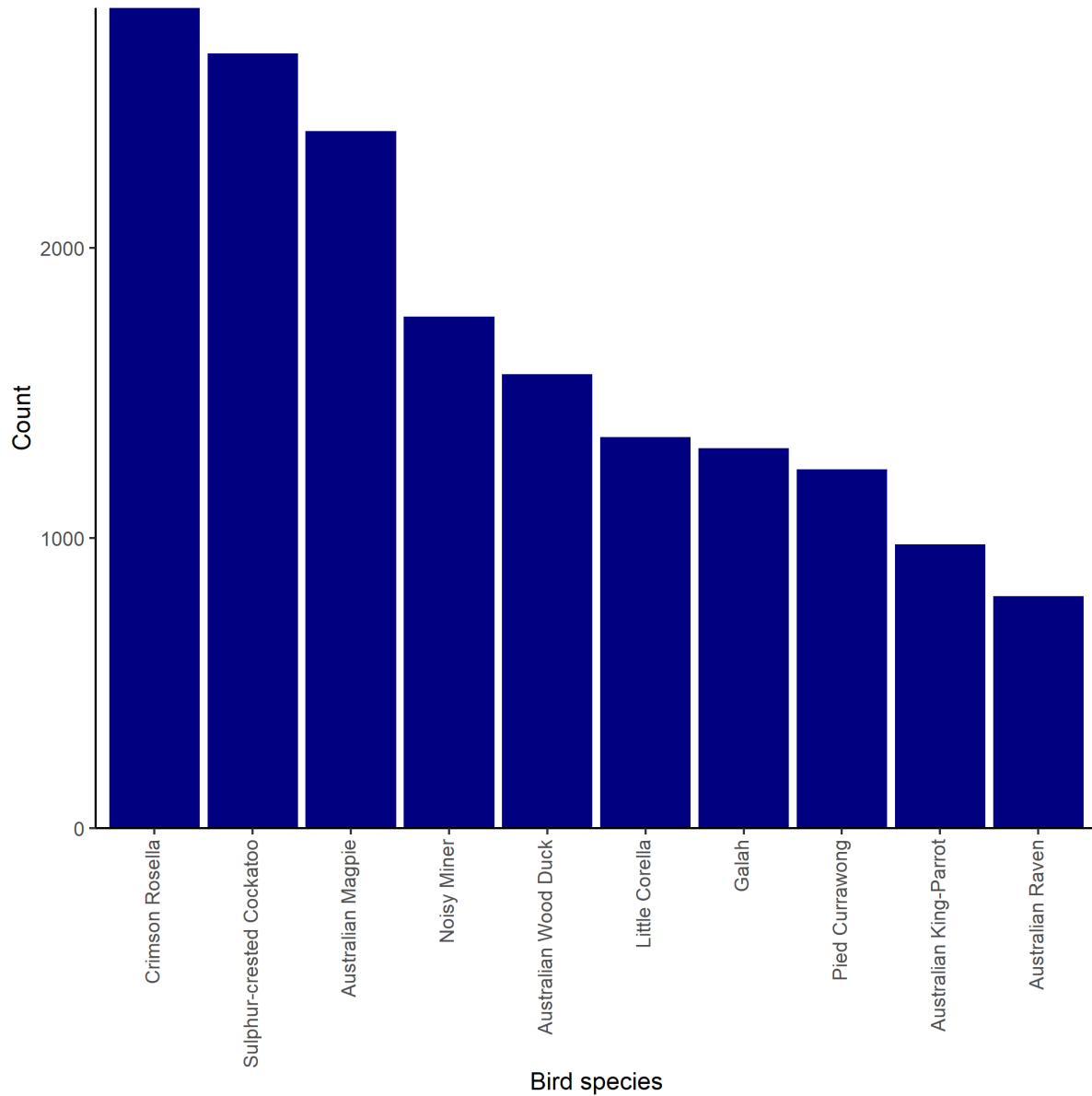
**22** of the **24** bird species reported only once are native to Australia. The Domestic Goose and Muscovy Duck are both introduced species that can escape captivity and persist in the wild. Four of the 22 native species are classified as threatened in New South Wales. Two of the 22 native species are raptors, two are nocturnal, and four are associated with aquatic habitats such as lakes and wetlands. The remaining species are typically found in woodlands, heathlands, and wet-forests and are generally urban-avoidant. The behaviours and habitat requirements of these species may account for the lack of reports during Bird Week, especially if most surveys occurred in people's backyards.

## Most Common Species

All of the ten most abundant bird species recorded within the Wingecarribee Shire Council boundaries are native to New South Wales. The top ten bird abundances ranged from **796** to **2,825** individual birds (Figure 2). All ten species are considered to have secure populations in New South Wales.

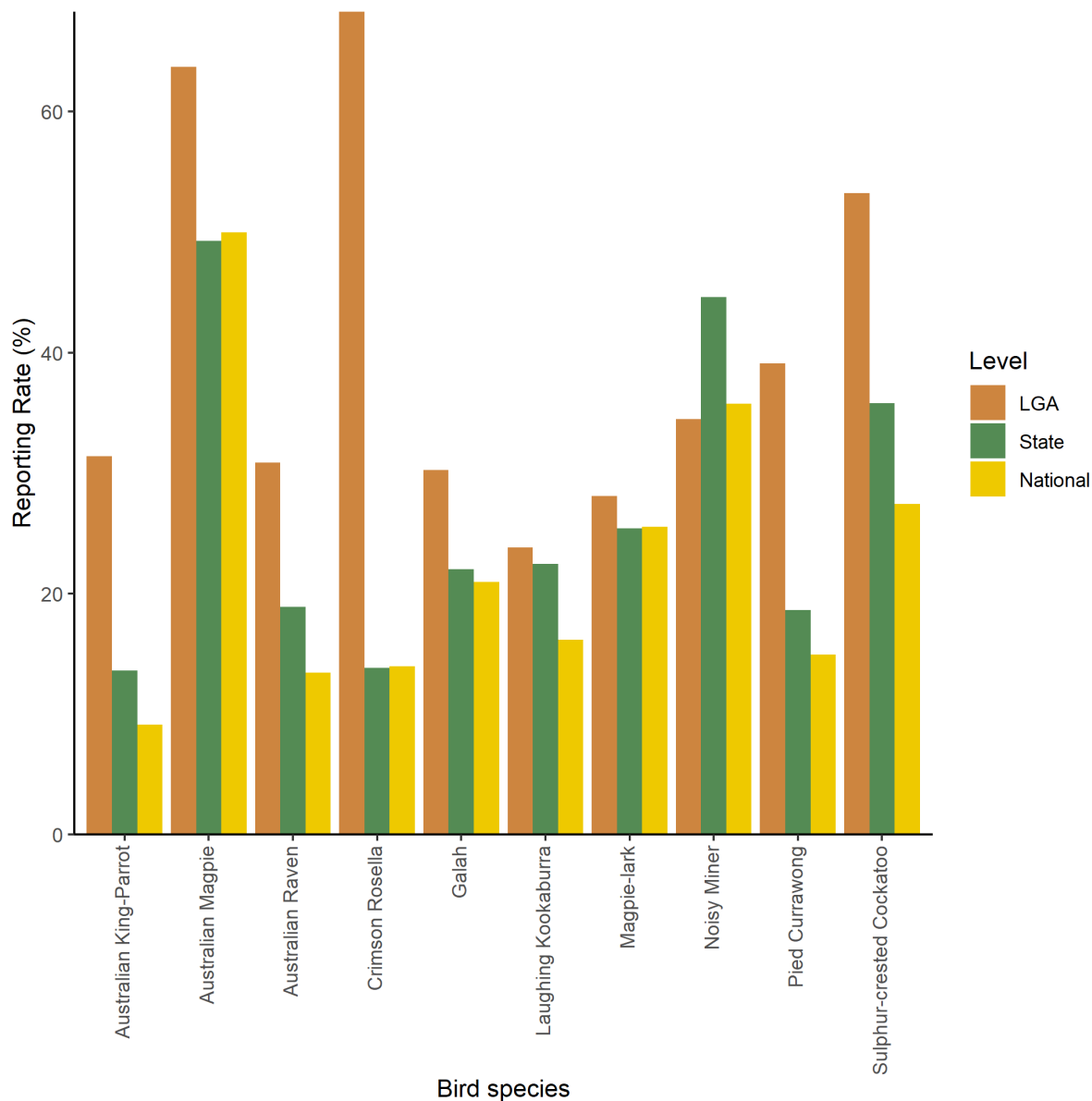
The most *counted* species, the Crimson Rosella was the 21<sup>st</sup>-most counted species across the state and 20<sup>th</sup>-most counted in the country. The second-most counted species, the Sulphur-crested Cockatoo, was the fourth-most abundant species nationally and third-most counted in the state. The third-most abundant species, the Australian Magpie, was the fourth-most counted species in the state and the third-most counted nationally. The Rainbow Lorikeet, while the most counted species in the state, ranked just 30<sup>th</sup> in Wingecarribee Shire Council. However, most of the species in the Wingecarribee Shire Council Top 10 ranked highly in the state abundances. The Australian King-Parrot, Crimson Rosella, and Pied Currawong were over-represented when compared with state

standings, but this comes as no surprise as these species are all common in moist habitats and the hills of the Great Dividing Range, as seen in Wingecarribee Shire Council.



**Figure 2:** The ten most abundant bird species within the Wingecarribee Shire Council boundaries during the 2021 Aussie Backyard Bird Count. \* Indicates introduced species.

Nine of the ten most frequently *reported* species within Wingecarribee Shire Council boundaries were reported at higher rates than the state and national averages (Figure 3), the exception being the Noisy Miner that ranked slightly lower than both state and national averages. The Australian King-Parrot, Crimson Rosella, Pied Currawong, and Sulphur-crested Cockatoo all had at particularly high reporting rates compared to the state and national averages.



**Figure 3:** Comparison of the reporting rates (%) of the ten most frequently recorded species during the 2021 Aussie Backyard Bird Count within the Wingecarribee Shire Council boundaries, with New South Wales and national reporting rates.

### Introduced Species

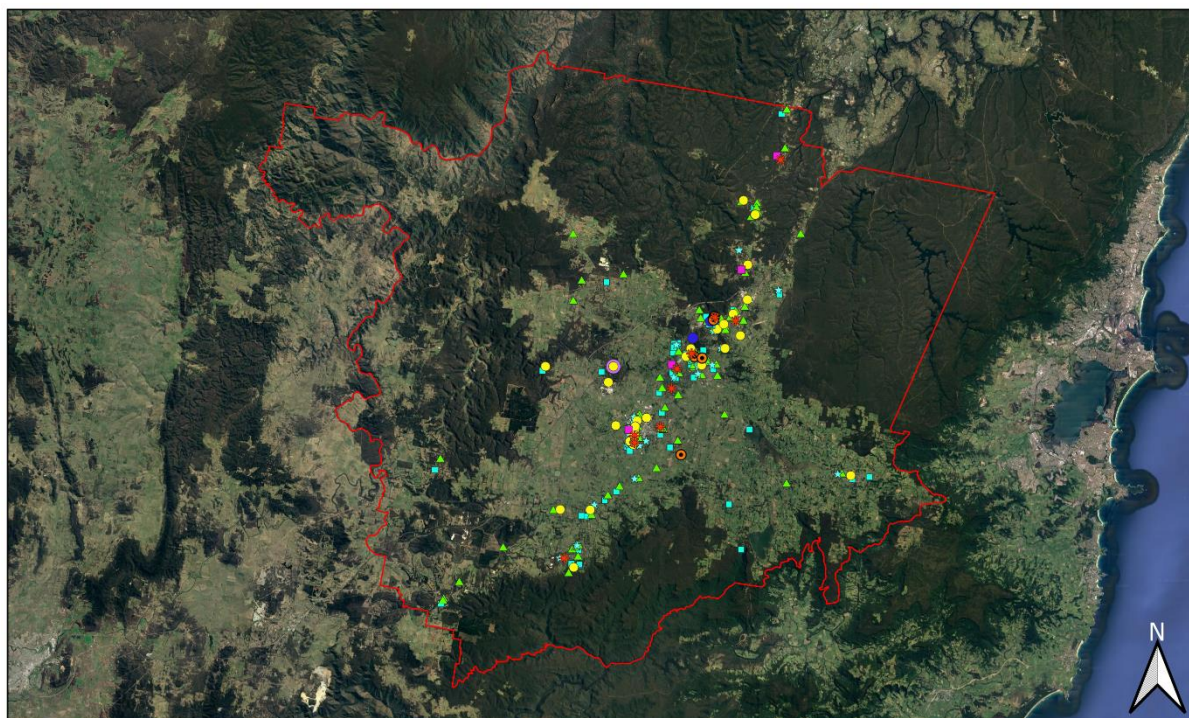
Ten introduced bird species were recorded within the council boundaries during the 2021 Aussie Backyard Bird Count (Table 3, Figure 4). However, the Domestic Duck is a descendant from the Northern Mallard and is not truly a distinct species. Introduced species records were spread mainly in a north-east to south-west line across the Wingecarribee Shire Council, with very few records from more heavily forested areas elsewhere (Figure 4). While several species were not recorded

from the peripheries of the council, it should be noted that very few surveys were submitted from these areas, and the distribution map is likely to reflect this survey bias.

The Common Myna (16.51 %), Common Blackbird (6.53 %), and House Sparrow (4.56 %) were the introduced species reported in the highest proportion of surveys within the council boundaries, though the Common Starling was also reported in 4.3 % of surveys. Figure 4 gives an overall indication of introduced species distribution across Wingecarribee Shire Council, but individual species distributions are difficult to discern due to the overlap of records. Accordingly, the individual distribution maps for each introduced species have been provided in **Appendix 1**.

**Table 3:** Survey statistics for the introduced bird species recorded within Wingecarribee Shire Council boundaries during the 2021 Aussie Backyard Bird Count.

Bird Species	Count	Proportion of total individuals (%)	Number of surveys detected in	Reporting rate (%)
Common Myna	583	2.21	192	16.51
House Sparrow	339	1.28	53	4.56
Common Blackbird	158	0.6	76	6.53
Common Starling	142	0.54	50	4.3
Domestic Duck	49	0.19	10	0.86
Spotted Dove	21	0.08	13	1.12
Rock Dove	14	0.05	5	0.43
Muscovy Duck	3	0.01	1	0.09
Eurasian Skylark	2	0.01	2	0.17
Domestic Goose	2	0.01	1	0.09



0 5 10 15 20 25 Kilometers

#### Legend

Wingecarribee Shire Council	Domestic Duck	Muscovy Duck
Common Blackbird	Domestic Goose	Rock Dove
Common Myna	Eurasian Skylark	Spotted Dove
Common Starling	House Sparrow	



**Figure 4:** Distribution of the introduced bird species within the Wingecarribee Shire Council boundaries during the 2021 Aussie Backyard Bird Count. Bird observations that were recorded in a single survey overlap due to having the same GPS co-ordinates.

### Native Species of Management Concern

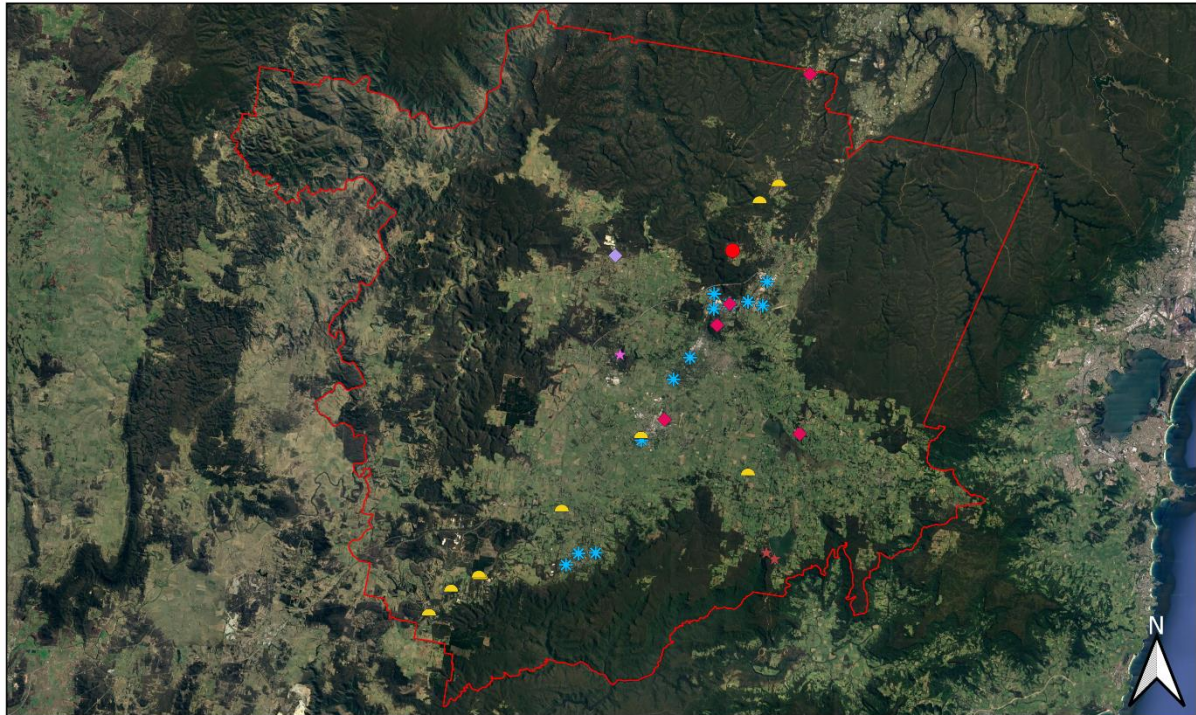
European colonisation has had a large impact on the conservation status of Australian birds. Approximately 234 species of Australian bird are now classified by the International Union for Conservation of Nature (IUCN) as Extinct, threatened with extinction, or Near Threatened (Garnett *et al*, 2011). It is critical that we gain an understanding of where these threatened species persist so that we can implement appropriate management actions in these areas. The Aussie Backyard Bird Count provides an opportunity for community members to participate in this important work.

**Eight** species of bird listed as threatened were recorded within the council boundaries (Table 4, Figure 5). Dusky Woodswallow were recorded in 1.38 % of surveys. Figure 5 gives an overall indication of threatened species distribution across Wingecarribee Shire Council, but individual

species distributions are difficult to discern due to the overlap of records. Accordingly, the individual distribution maps for each threatened species have been provided in **Appendix 2**.

**Table 4:** Threatened species recorded within Wingecarribee Shire Council boundaries.

Bird Species	Status	Count	Number of surveys detected in	Reporting rate (%)
Blue-billed Duck	VU	8	1	0.09
Diamond Firetail	VU	2	1	0.09
Dusky Woodswallow	VU	40	16	1.38
Glossy Black-Cockatoo	VU	24	11	0.95
Little Eagle	VU	6	6	0.52
Powerful Owl	VU	1	1	0.09
Scarlet Robin	VU	1	1	0.09
White-bellied Sea-Eagle	VU	2	2	0.17



0 5 10 15 20 25 Kilometers



**Legend**

- |                             |                         |
|-----------------------------|-------------------------|
| Wingecarribee Shire Council | Little Eagle            |
| Blue-billed Duck            | Powerful Owl            |
| Diamond Firetail            | Scarlet Robin           |
| Dusky Woodswallow           | White-bellied Sea-Eagle |
| Glossy Black-Cockatoo       |                         |



**Figure 5:** Distribution of the threatened bird species within the Wingecarribee Shire Council boundaries during the 2021 Aussie Backyard Bird Count. Bird observations that were recorded in a single survey overlap due to having the same GPS co-ordinates.



**Two** threatened raptor species were recorded within the Wingecarribee Shire Council boundaries in 2021:

- White-bellied Sea-Eagle (Vulnerable)
- Little Eagle (Vulnerable)

A number of Australian raptor species are threatened due to habitat destruction and fragmentation, loss of nesting hollows, declining prey availability, and the use of rodenticides.

**One** threatened waterbird species was recorded within the Wingecarribee Shire Council boundaries in 2021:

- Blue-billed Duck (Vulnerable)

Numerous Australian waterfowl and wetland-associated birds are threatened due to the continual loss and degradation of wetlands and natural waterways, through practices such as water diversion, river regulation, land clearing and changes in salinity (BirdLife Australia, 2015).

**Three** threatened woodland-associated bird species were recorded within the Wingecarribee Shire Council boundaries in 2021:

- Diamond Firetail (Vulnerable)
- Dusky Woodswallow (Vulnerable)
- Scarlet Robin (Vulnerable)

Since European settlement, over 80% of Australia's temperate woodlands have been cleared, resulting in many woodland-dependent bird species experiencing population declines and being reclassified as 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 its high profile, acts as a flagship species for the conservation of other threatened woodland birds. 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 owl species was recorded within the Wingecarribee Shire Council boundaries in 2021:

- Powerful Owl (Vulnerable)

Many owl species are threatened due to the use of rodenticides, habitat destruction and fragmentation, and loss of nesting hollows in old growth trees.

**One** threatened parrot species was recorded within the Wingecarribee Shire Council boundaries in 2021:

- Glossy Black-Cockatoo (Vulnerable)

Numerous native parrot species are threatened in Australia, with each species facing its own set of conservation challenges. However, many parrot species are experiencing population declines due to the lack of reliable food access and suitable nesting sites, particularly mature tree hollows, which are essential for successful breeding. Habitat loss and modification is decreasing the number of suitably sized tree hollows available for threatened parrot species to nest in, and the hollows that do remain are subject to fierce competition. These hollows are often won and subsequently used by more aggressive bird species (e.g., Crimson Rosellas, Galahs, Rainbow Lorikeets and Common Starlings), European honeybees, and marsupials (BirdLife Australia, 2015).

## Species-specific Results

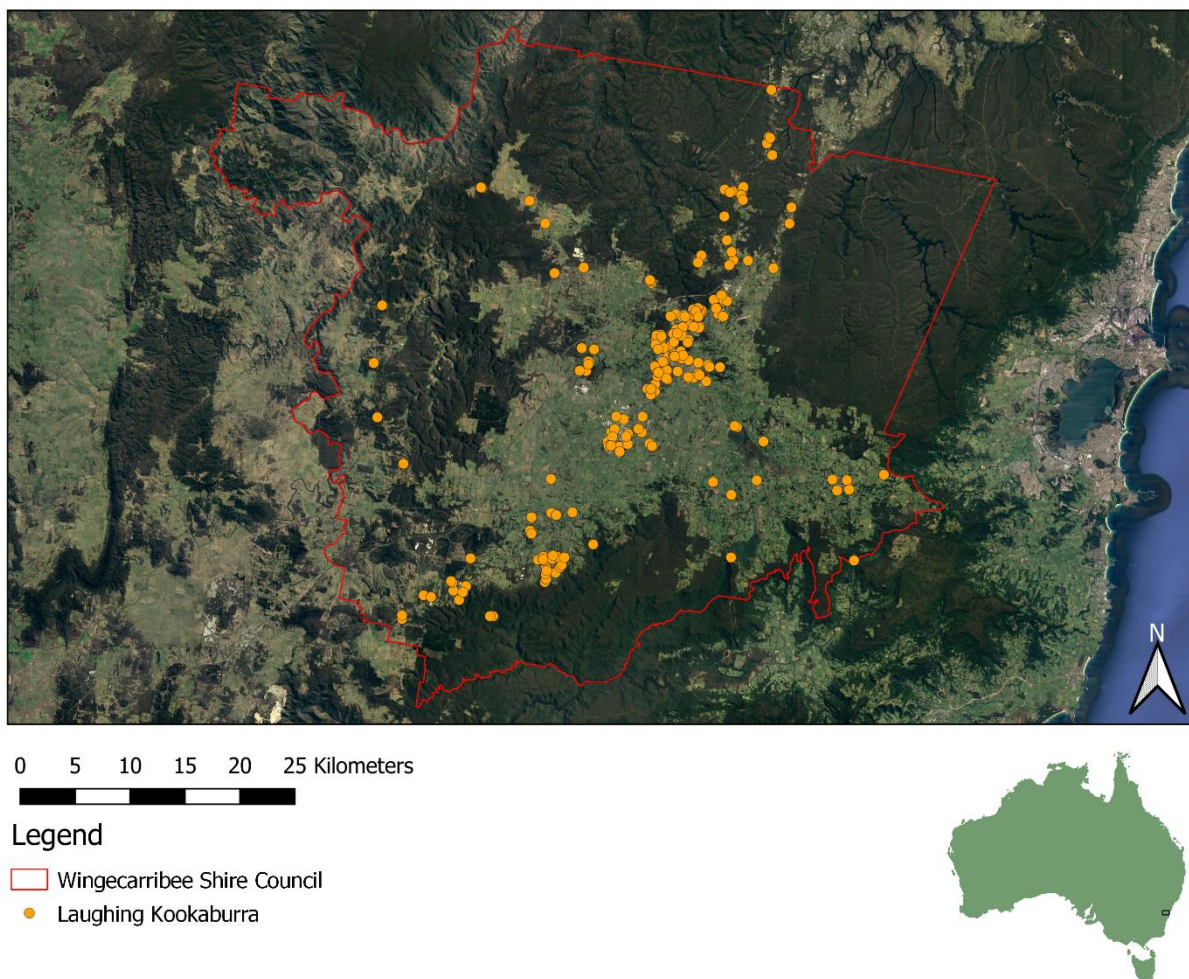
### Laughing Kookaburra

**502** Laughing Kookaburra were counted within the council boundaries during the 2021 Aussie Backyard Bird Count, making them the 16<sup>th</sup>-most abundant species in the region. Records were well spread across the council, including in urban centres, and along forest edges.

The total count of Laughing Kookaburra was higher than all previous years of the count (Table 5). However, accounting for an increase in participation over the years, the reporting rate in 2021 of 23.82 % sits in roughly the middle of the reporting rates from previous years (~ 22 – 27 %). The reporting rate for the species was on par with the state (22.47 %) average, and slightly higher than the national (16.8 %) average.

**Table 5:** Species-specific statistics for the Laughing Kookaburra showing the total number of surveys conducted in the council, the total number of birds observed and the reporting rate of the species for the years 2018 – 2021 inclusive.

Laughing Kookaburra	2018	2019	2020	2021
Total surveys (all)	423	595	798	1,163
Bird Count	199	259	285	502
Reporting Rate (%)	27.66	24.37	22.68	23.82



**Figure 6:** Distribution of Laughing Kookaburra within the council boundaries (red line) during the 2021 Aussie Backyard Bird Count. Bird observations from the same general area will overlap as they have the same, or similar, GPS coordinates.

### Eastern Spinebill

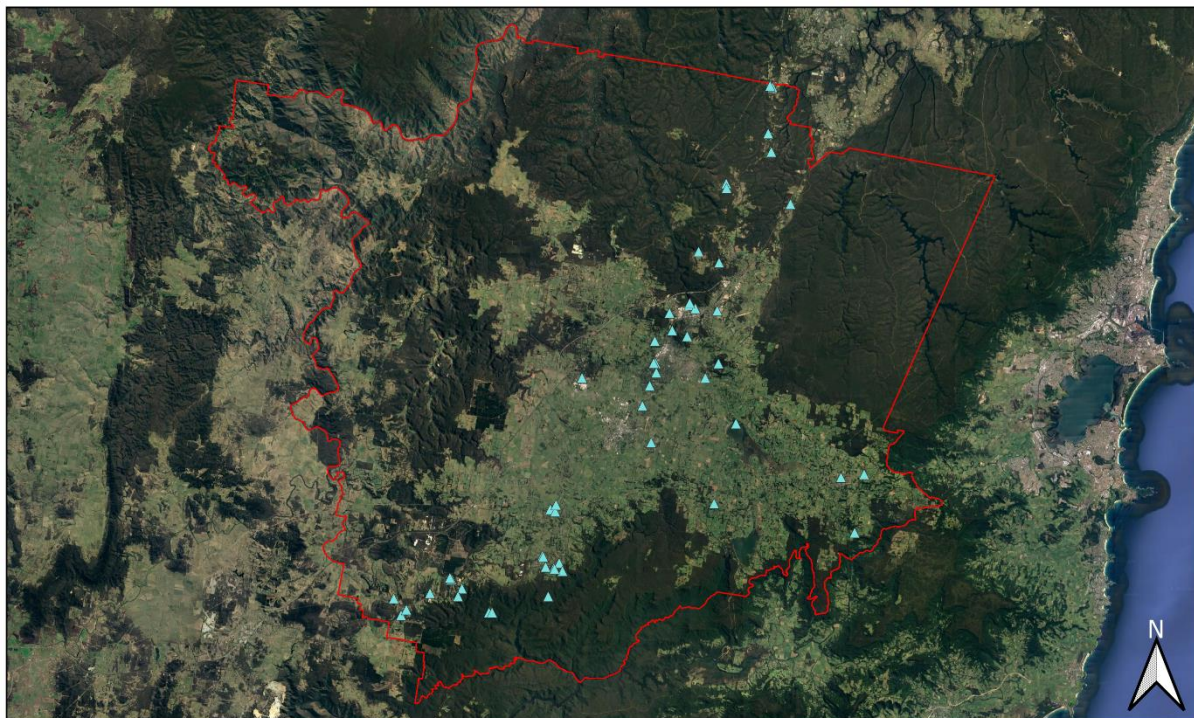
**124** Eastern Spinebill were counted within the council boundaries during the 2021 Aussie Backyard Bird Count, making them the 29<sup>th</sup>-most abundant species in the region. Records were well spread across the council except for in the west, though most were from areas adjacent to native forest or remnant vegetation (Figure 7).

The total number of Eastern Spinebill was higher than all previous years (Table 6). However, when accounting for participation levels, the 2021 reporting rate of 6.96 % was actually lower than all previous years. This shows that although more surveys were submitted, and a higher bird count was recorded, more surveys had multiple individuals of this species recorded, hence the lower reporting rate. The 2021 council reporting rate was still higher than the state-wide reporting rate (4.05 %), as well as the South Australia (3.22 %), Tasmania (6.14 %), and Victoria (4.37 %) reporting rates. The Eastern Spinebill is rare at sea level in Queensland, and not found in Western Australia or the

Northern Territory, so a full nation-wide comparison may be less appropriate, but the national reporting rate was 3.21 %.

**Table 6:** Species-specific statistics for the Eastern Spinebill showing the total number of surveys conducted in the council, the total number of birds observed and the reporting rate of the species for the years 2018 – 2021 inclusive.

Eastern Spinebill	2018	2019	2020	2021
Total surveys (all)	423	595	798	1,163
Bird Count	91	94	84	124
Reporting Rate (%)	11.11	8.57	7.64	6.96



0 5 10 15 20 25 Kilometers



**Legend**

- Wingecarribee Shire Council
- ▲ Eastern Spinebill



**Figure 7:** Distribution of Eastern Spinebill within the council boundaries (red line) during the 2021 Aussie Backyard Bird Count. Bird observations from the same general area will overlap as they have the same, or similar, GPS coordinates.

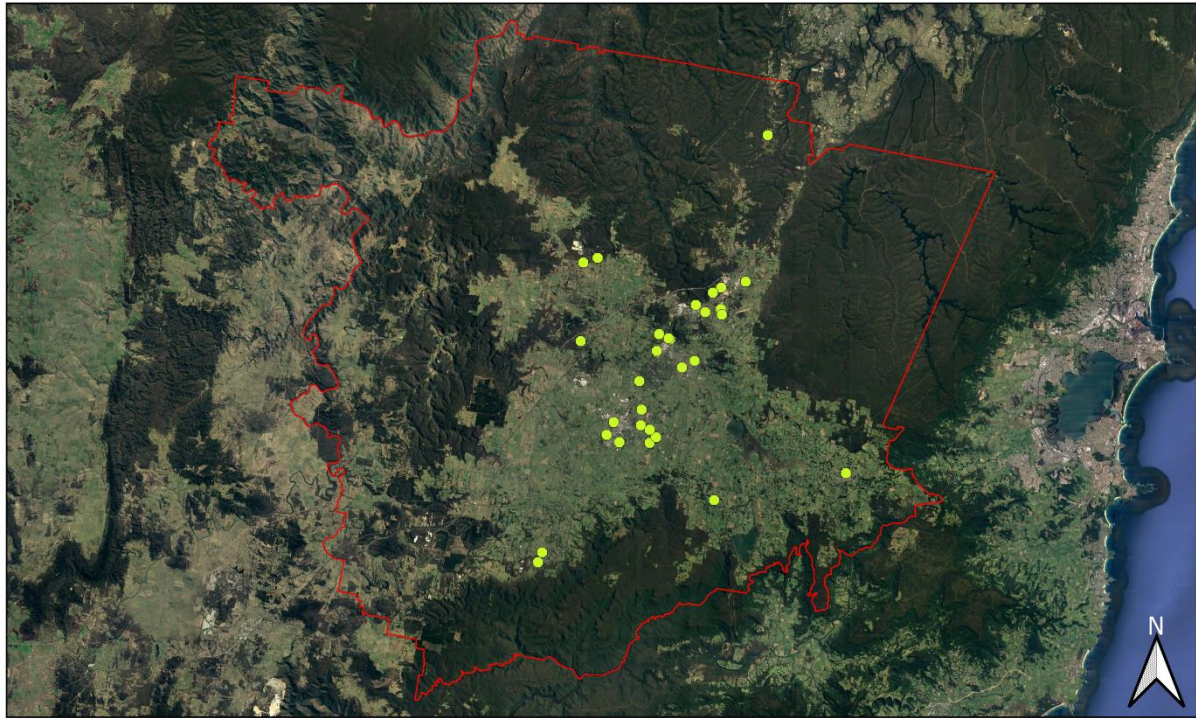
## Masked Lapwing

77 Masked Lapwing were counted within the council boundaries during the 2021 Aussie Backyard Bird Count, making them the 34<sup>th</sup>-most abundant species in the region. Records were scattered fairly evenly through the central parts of the council, yet even despite the lack of checklists, this species was not recorded in the western parts of the council (Figure 8).

The total count of Masked Lapwing was higher than all previous years of the count (Table 7). However, as with the Eastern Spinebill, after accounting for participation levels, the 2021 reporting rate of 3.1 % was lower than all previous years. That being said, the reporting rate for this species has remained relatively constant over time, each year falling between 3 and 4 %. The reporting rates from the Wingecarribee Shire Council in 2021 were considerably lower than both state (7.95 %) and national (7.60 %) reporting rates.

**Table 7:** Species-specific statistics for the Masked Lapwing showing the total number of surveys conducted in the council, the total number of birds observed and the reporting rate of the species for the years 2018 – 2021 inclusive.

Masked Lapwing	2018	2019	2020	2021
Total surveys (all)	423	595	798	1,163
Bird Count	26	50	54	77
Reporting Rate (%)	3.31	3.7	4.01	3.1



0 5 10 15 20 25 Kilometers



**Legend**

- Wingecarribee Shire Council
- Masked Lapwing



**Figure 8:** Distribution of Masked Lapwing within the council boundaries (red line) during the 2021 Aussie Backyard Bird Count. Bird observations from the same general area will overlap as they have the same, or similar, GPS coordinates.

# 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).



There's always more we can be doing to protect and encourage birds – which is why you're invited to get involved with some of our other programs.



# Birds in Backyards

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 loss of urban bird diversity has both ecological and human/cultural consequences. The Birds in Backyards Program builds knowledge, skills and practical support to develop action-oriented responses to the decline of bird diversity.

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. 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. 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!



## 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 and 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

**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](mailto:holly.parsons@birdlife.org.au)

# Rodent poisons are killing birds – How your Council can help



While rodenticides are poisons designed to kill pest mice and rats, impact is much more far-reaching than just these pests. **Second generation anticoagulant rodenticides (SGAR) poisons in particular are the worst.**

SGARs work by causing internal bleeding, but when rats and mice eat baits poisoned with SGARs, they become poisonous themselves, harming, and even killing other animals and birds that eat them. Studies in Australia have found harmful, and often fatal levels of SGARs in dead birds of prey, including Southern Boobooks, Wedge-tailed Eagles, and Powerful Owls.

Evidence is also growing that suggests that rat poison is not only being eaten by the targeted rodents, but by reptiles (which have a very high tolerance), invertebrates and possums. This all means that **these poisons are moving far beyond the rodents they are targeting and impacting our native wildlife.**

These SGAR poisons have been restricted from public sale in parts of the US, Canada and European Union.

But Australian regulations lag behind and SGARs – including Talon, Fast Action RatSak, and The Big Cheese Fast Action brands – are available to purchase from supermarkets and hardware shops throughout Australia.

## What can Local Government do?

With responsibility for the maintenance numerous properties, local government can reduce the amount of these deadly poisons entering the environment by changing your pest control practices and informing your residents. A number of local government administrations across the country have already taken action to become 'Owl-friendly' regions.

You can take action in your local government area by:

- Specifying preferred rodenticide treatments in commercial pest operator contracts (See next page for alternatives)
- Investigating conditions that could be included to assist with rat control in demolition licences;
- Distributing information about the impacts of second-generation rodenticides on birds and other wildlife to your residents.

## Change your pest control practices

Taking the lead and employing wildlife-friendly rodent control on all council-managed properties is the best way to demonstrate to your community that the council is committed to protecting wildlife from rat poisons. If poison baits are required, place requirements on pest control contractors to only use first generation rodenticide products or suggest other alternatives. Look for active ingredients that are less harmful such as Warfarin (RatSak Double-strength) and Coumatetralyl (Racumin) and use products in locked bait stations.

### What are the alternatives to poison?

There are lots of ways to manage rat and mice that reduce the need for pest control interventions and don't involve poison. Local councils can provide information to businesses and residents on more responsible choices that will also meet local government health standards. In domestic settings, non-poison pest control – such as snap traps should be the first choice.

Property managers and residents can also be encouraged to:

- seal potential roof/wall cavity access points that rodents might be using
- pick up any fallen fruit,
- ensure excess pet food isn't accessible,
- rodent-proof chook pens and aviaries,
- replace rat-friendly palms with owl-friendly natives, and
- tidy up garden waste and limit access to compost heaps

Encouraging native predators also assists to reduce rodent populations. Tactics to do this include planting native trees, and installing nest boxes-for some birds of prey like Southern Boobooks to use as well as native prey like possums.

[You can see a list of rodenticide products available in Australia here.](#)

### Would your Council like to become a Hero in our campaign?

We are encouraging local Councils to become 'Heroes' our campaign by taking the actions detailed above. For more information get in touch with us: [conservation@birdlife.org.au](mailto:conservation@birdlife.org.au)



# Birds in Schools



Birds in Schools is a free environmental education program designed by BirdLife Australia and its Urban Birds Program. Available online through BirdLife’s e-learning platform, Birds in Schools enables teachers right across Australia to deliver education and action for local birds with support from BirdLife Australia.

Birds in Schools engages students in the scientific process through investigation and monitoring the birds and habitat of their school grounds. Students use their own observational skills and ideas to develop and implement an action plan to help their local bird life. Action plans may include planting native plants, installing nest boxes or bird baths, or delivering education campaigns in their school or local neighbourhood.

## Birds in Schools offers students and teachers:

- The chance to become citizen scientists and actively participate in the scientific process.
- A valuable experience of connection with, and improved understanding of, the natural world.
- An opportunity to investigate real-life issues, reflect and problem solve and develop action-oriented responses to sustainability challenges.
- A supported, curriculum-linked teaching resource for Years 3 to 6, Stage 2-3, including lesson plans and resources, that builds students’ knowledge and skills.
- A way to prioritise biodiversity within the school, with greener spaces improving the wellbeing of students too.
- The opportunity to collaborate and partner with the local school community and local council.



## Lessons and support

### **Birds in Schools consists of 10 lessons for students from Years 3 to 6, through which students:**

- Conduct bird and habitat surveys and contribute survey data to BirdLife's database, Birdata.
- Learn about local birds, biodiversity, and habitats.
- Analyse surveys and make recommendations based on their own research.
- Develop and implement an action plan to improve habitat for birds.

### **Support for teachers:**

- Lesson plans and accompanying resources supporting teachers to deliver content.
- Assessment for students to easily measure learning.
- Online teacher professional development and online lessons for students.
- Support from a BirdLife staff member including assistance and advice.

### **How much time does it take?**

The project is designed to allow schools flexibility of delivery. Schools can choose to deliver Birds in Schools over one term, two terms or more. There are 10 lessons with each lesson designed to fit into a 50 minute to hour-long session (although some activities will extend outside these times, particularly the action). The program is flexible and we encourage you to adapt it to meet your needs, for example, you do not have to deliver every lesson and we can assist with program adaptation if required.

### **Who teaches the students?**

Teachers deliver the lessons and are provided with an online professional training session with Birdlife to develop the technical skills and knowledge required to deliver the program, including in bird identification, conducting surveys, using Birdata and what actions help birds. A BirdLife Australia staff member delivers online Q&A sessions for students and are available for assistance and advice to support teachers.

### **How much does it cost?**

The program is free for schools to take part in. Schools may wish to secure grants or fundraise to enable the completion of action plans, such as planting native plants or installing nest boxes or bird baths.



### **Find out more**

#### **Website:**

[birdlife.org.au/projects/urban-birds/birds-in-schools-project](https://birdlife.org.au/projects/urban-birds/birds-in-schools-project)

#### **Email:**

Alexandra Johnson,  
Birds in Schools Project Officer  
[alexandra.johnson@birdlife.org.au](mailto:alexandra.johnson@birdlife.org.au)

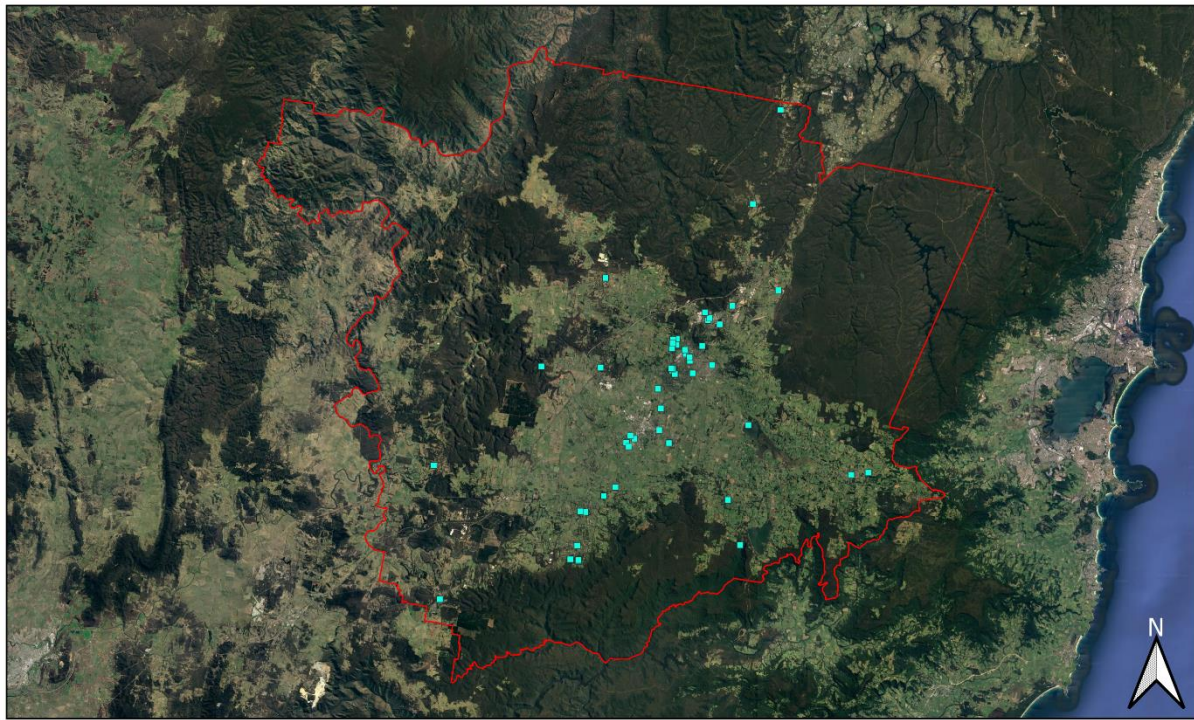
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# Appendix One – Introduced Species Maps

The individual distribution maps for each introduced species recorded within council boundaries during the 2021 Aussie Backyard Bird Count, in alphabetical order, are presented in Appendix One. No figure captions have been provided, as the format is identical to that of Figure 4.

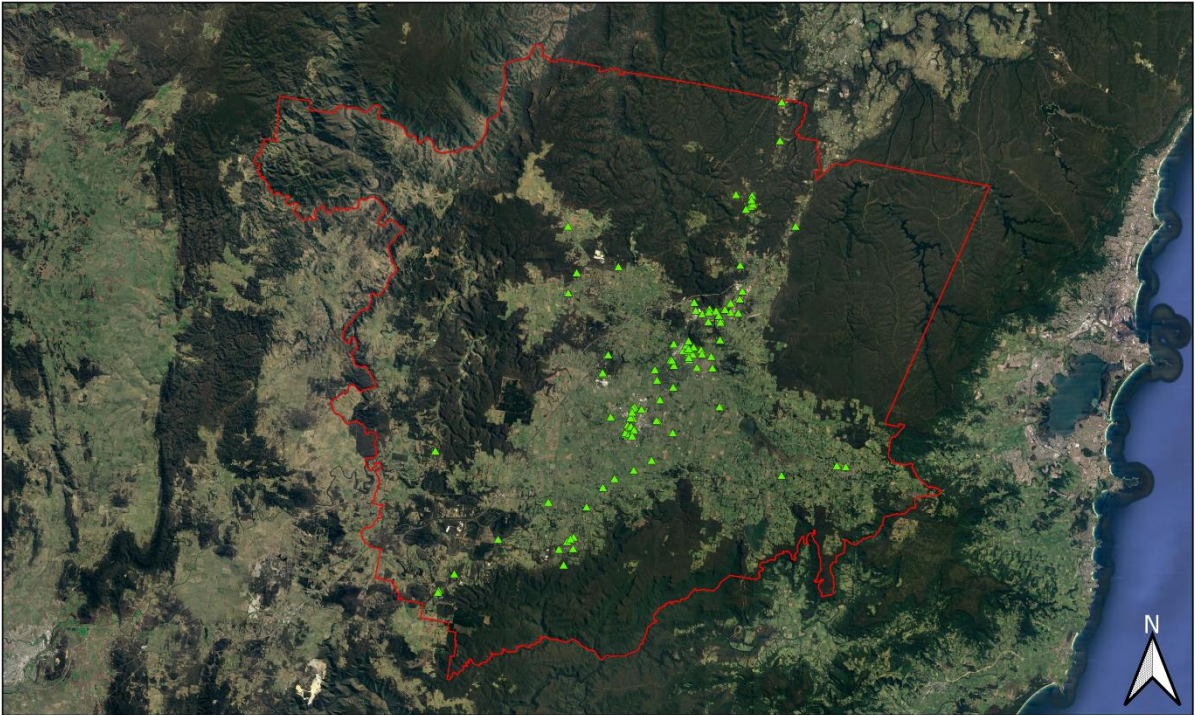


0 5 10 15 20 25 Kilometers


## Legend

-  Wingecarribee Shire Council
-  Common Blackbird







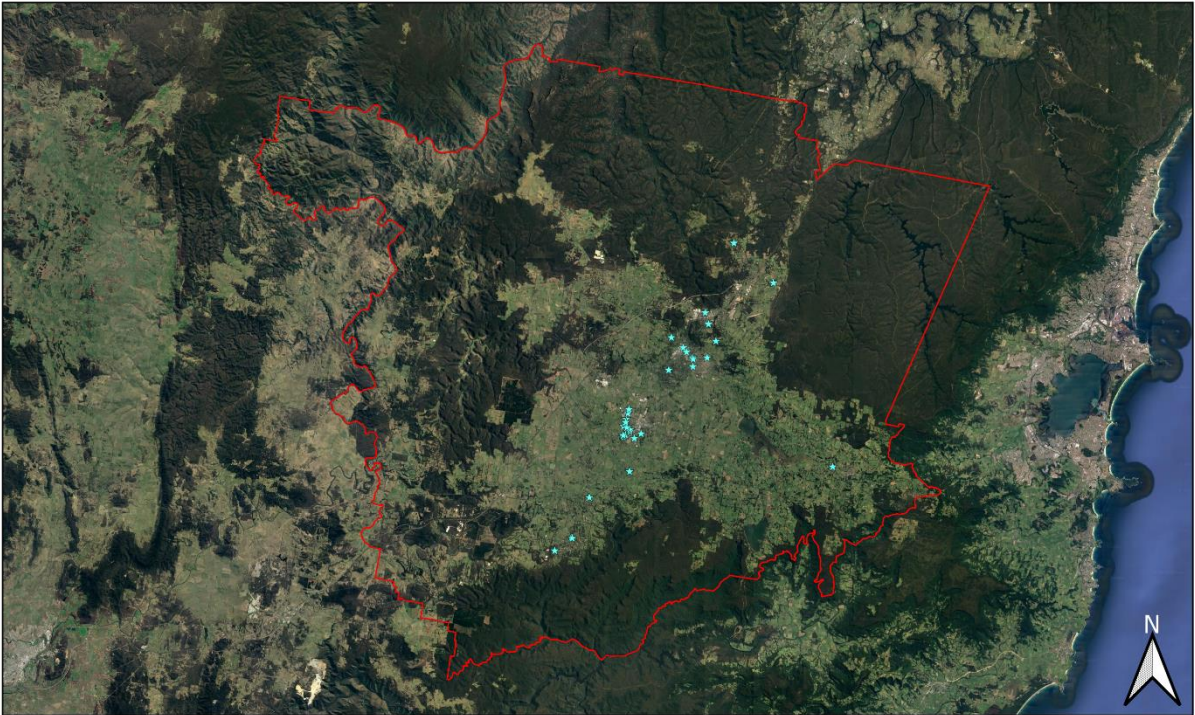
0 5 10 15 20 25 Kilometers




### Legend

-  Wingecarribee Shire Council
-  Common Myna





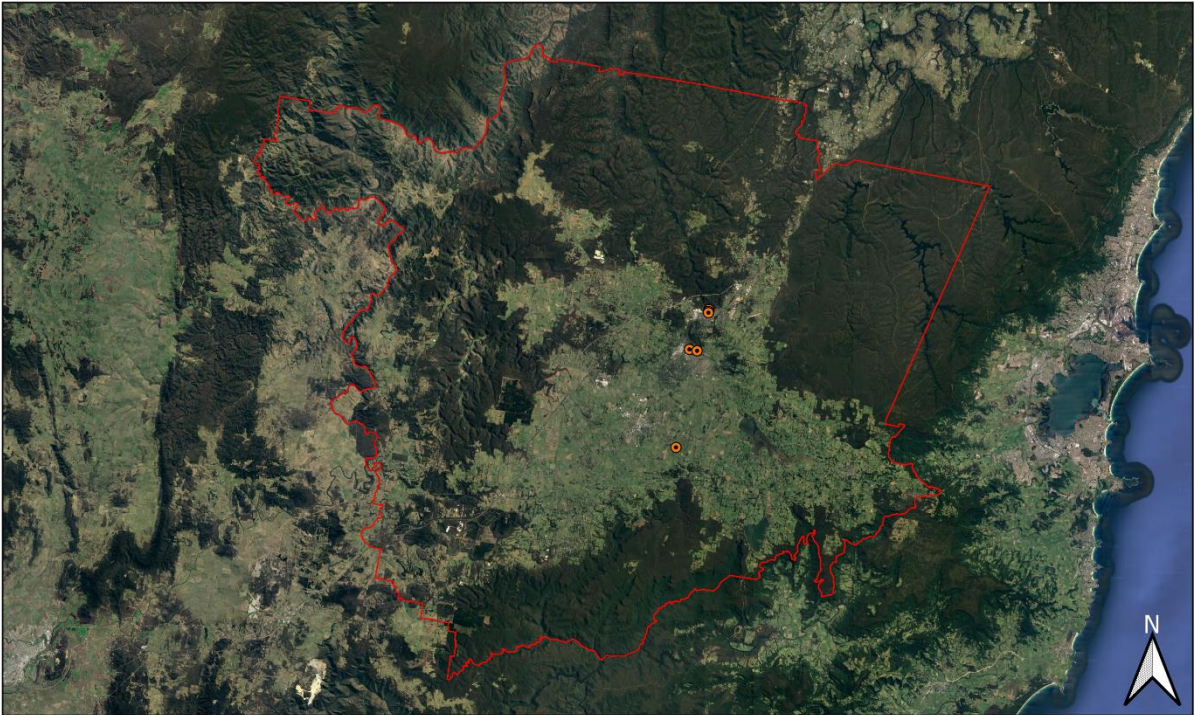
0 5 10 15 20 25 Kilometers




Legend

- Wingecarribee Shire Council
- Common Starling







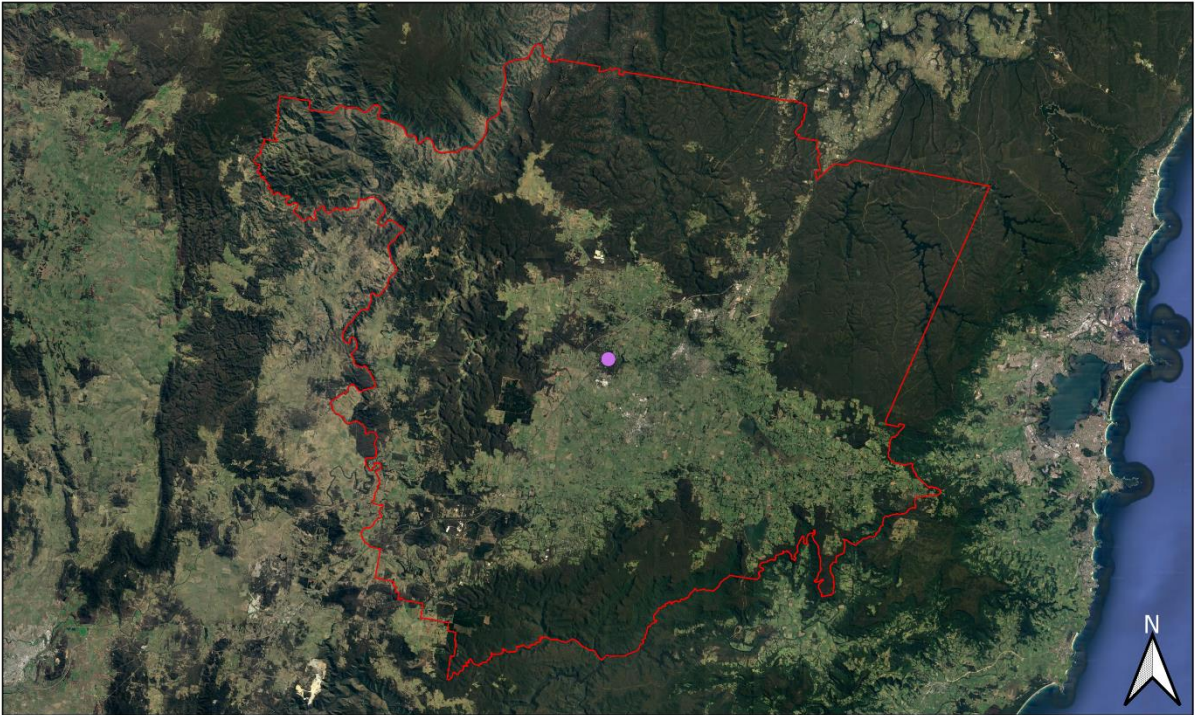
0 5 10 15 20 25 Kilometers



Legend

-  Wingecarribee Shire Council
-  Domestic Duck







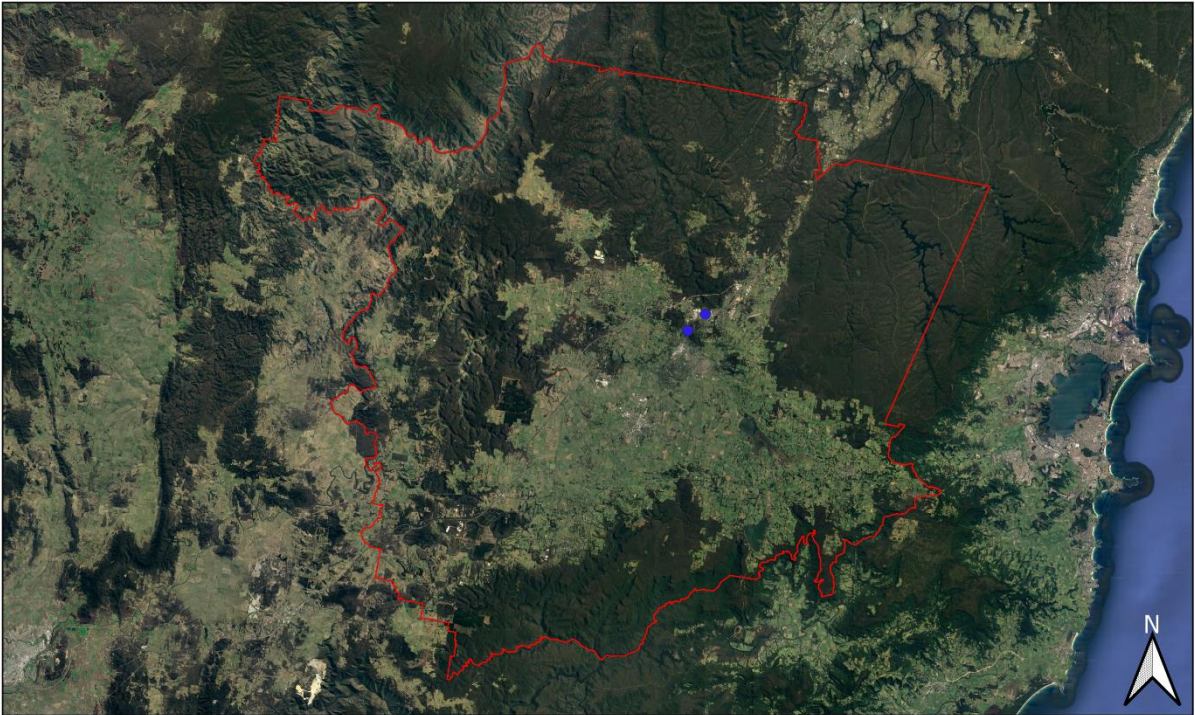
0 5 10 15 20 25 Kilometers




### Legend

-  Wingecarribee Shire Council
-  Domestic Goose







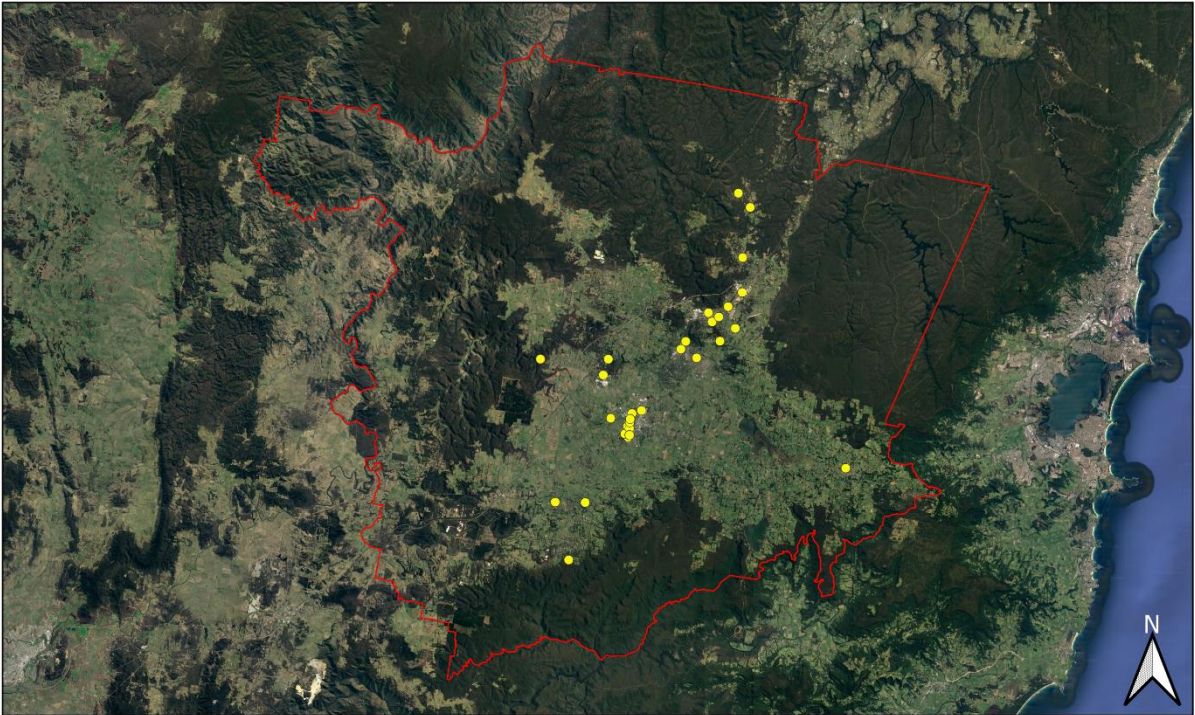
0 5 10 15 20 25 Kilometers




Legend

-  Wingecarribee Shire Council
-  Eurasian Skylark







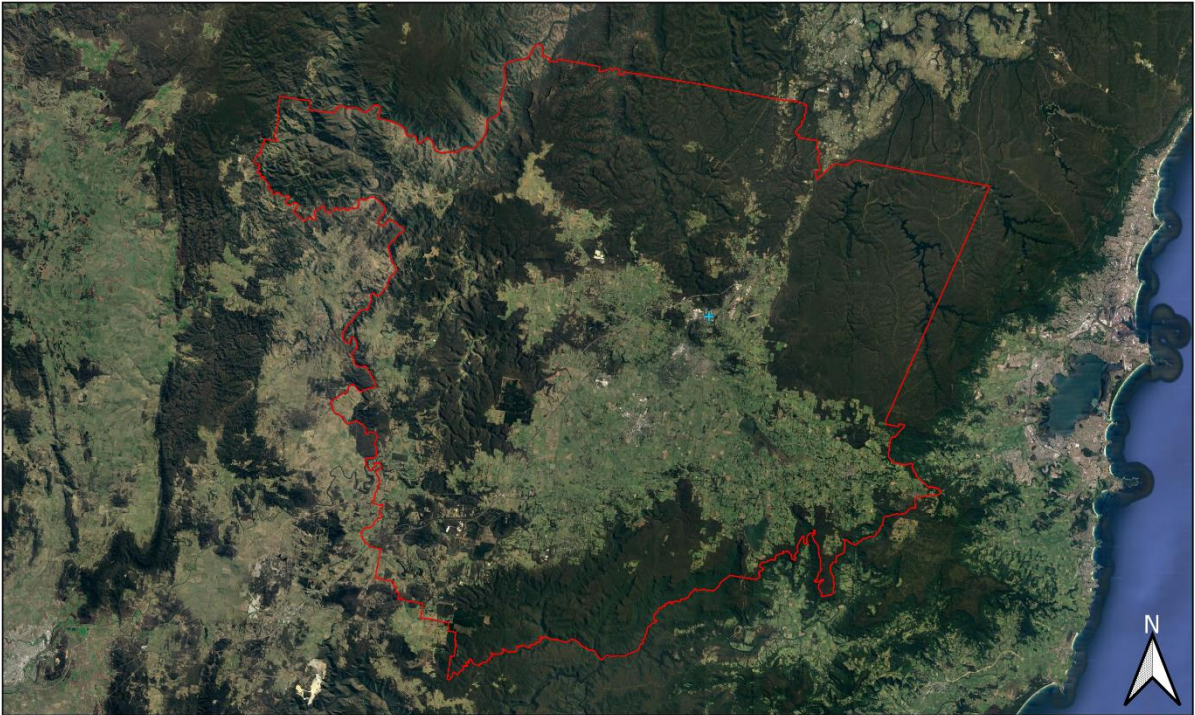
0 5 10 15 20 25 Kilometers



### Legend

-  Wingecarribee Shire Council
-  House Sparrow





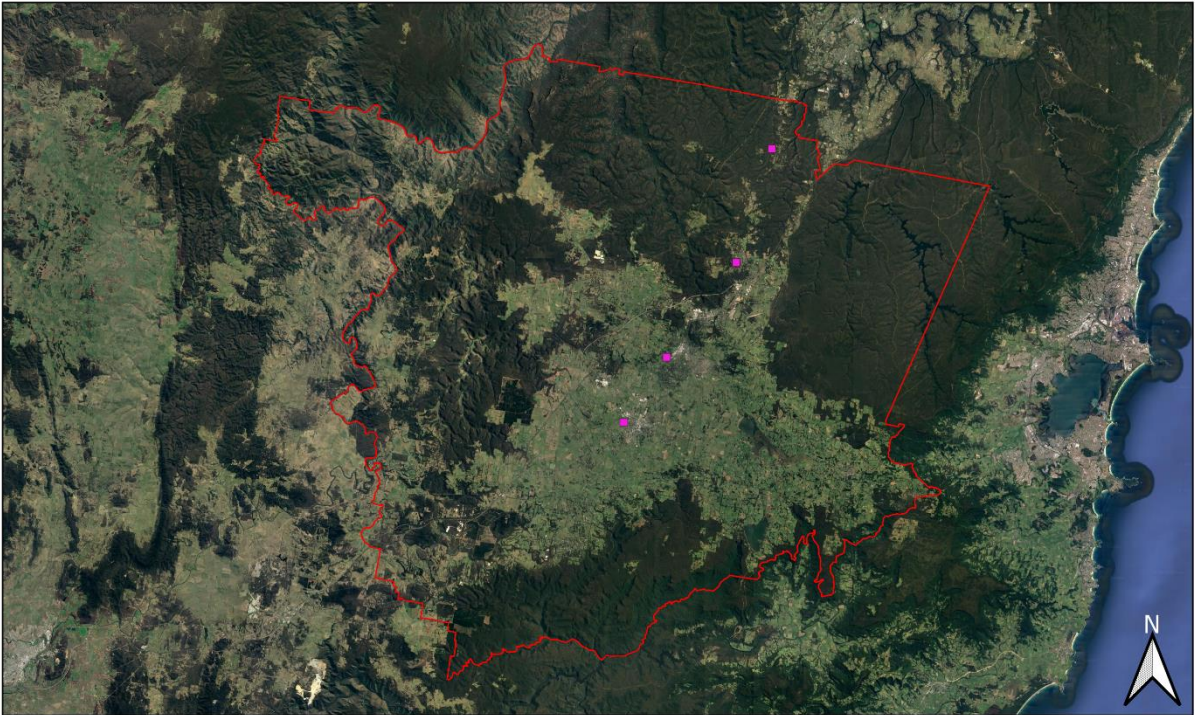
0 5 10 15 20 25 Kilometers

Legend

- Wingecarribee Shire Council
- Muscovy Duck





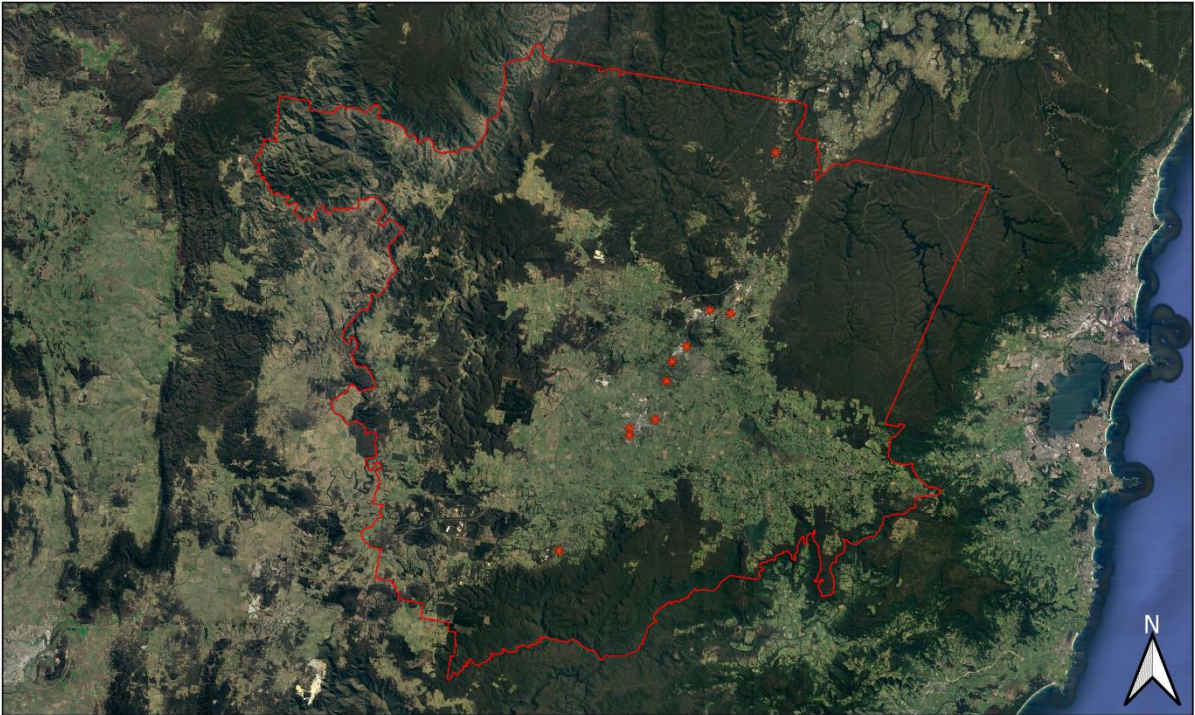


0 5 10 15 20 25 Kilometers


Legend

- Wingecarribee Shire Council
- Rock Dove







0 5 10 15 20 25 Kilometers



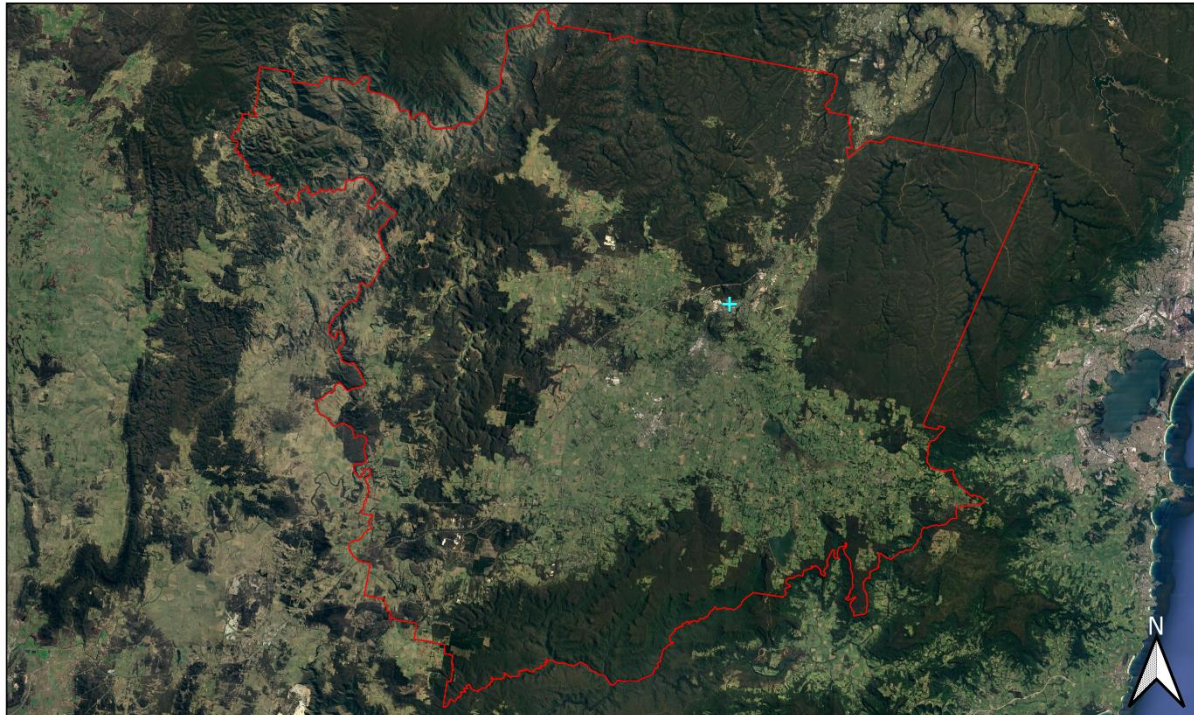
Legend

-  Wingecarribee Shire Council
-  Spotted Dove



# Appendix Two – Threatened Species Maps



The individual distribution maps for each threatened species recorded within council boundaries during the 2021 Aussie Backyard Bird Count, in alphabetical order, are presented in Appendix Two. No figure captions have been provided, as the format is identical to that of Figure 5.



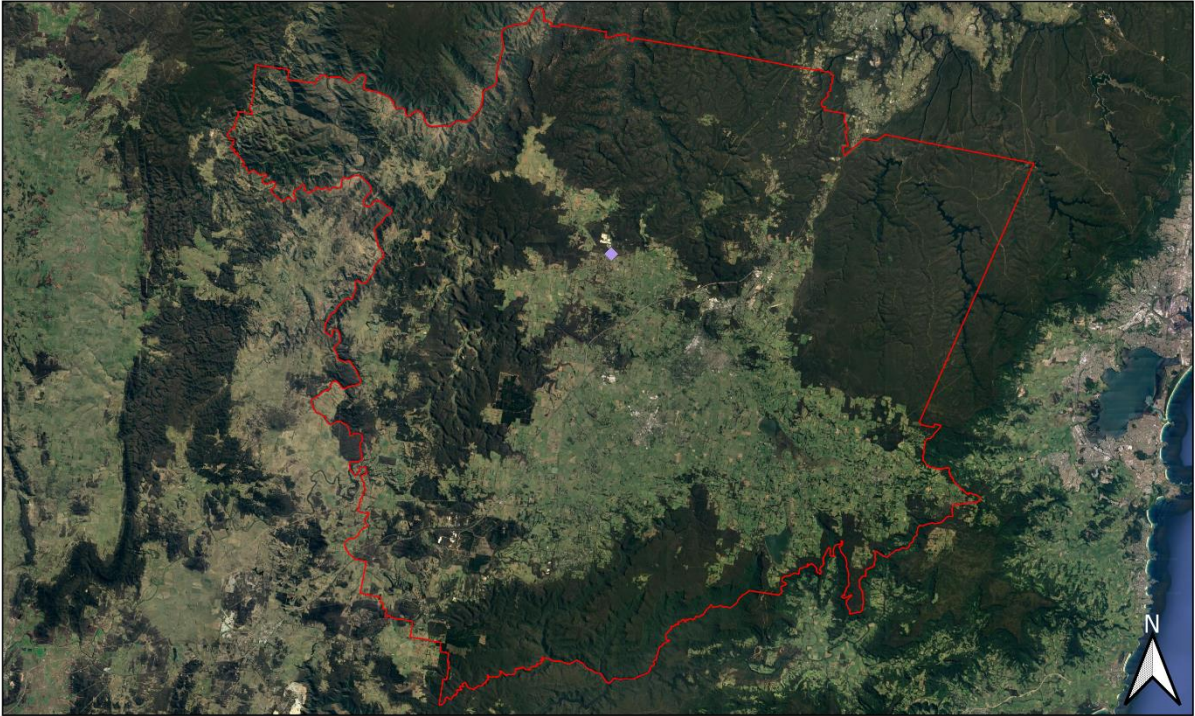
0 5 10 15 20 25 Kilometers



## Legend

-  Wingecarribee Shire Council
-  Blue-billed Duck







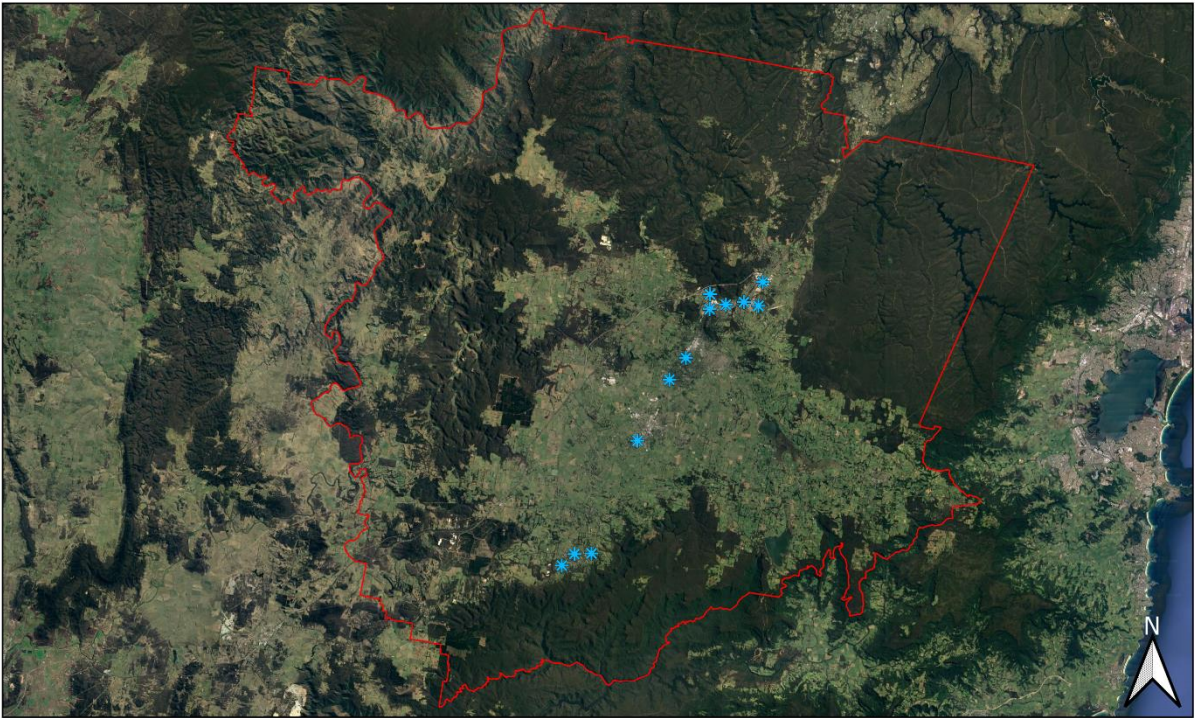
0 5 10 15 20 25 Kilometers



**Legend**

-  Wingecarribee Shire Council
-  Diamond Firetail





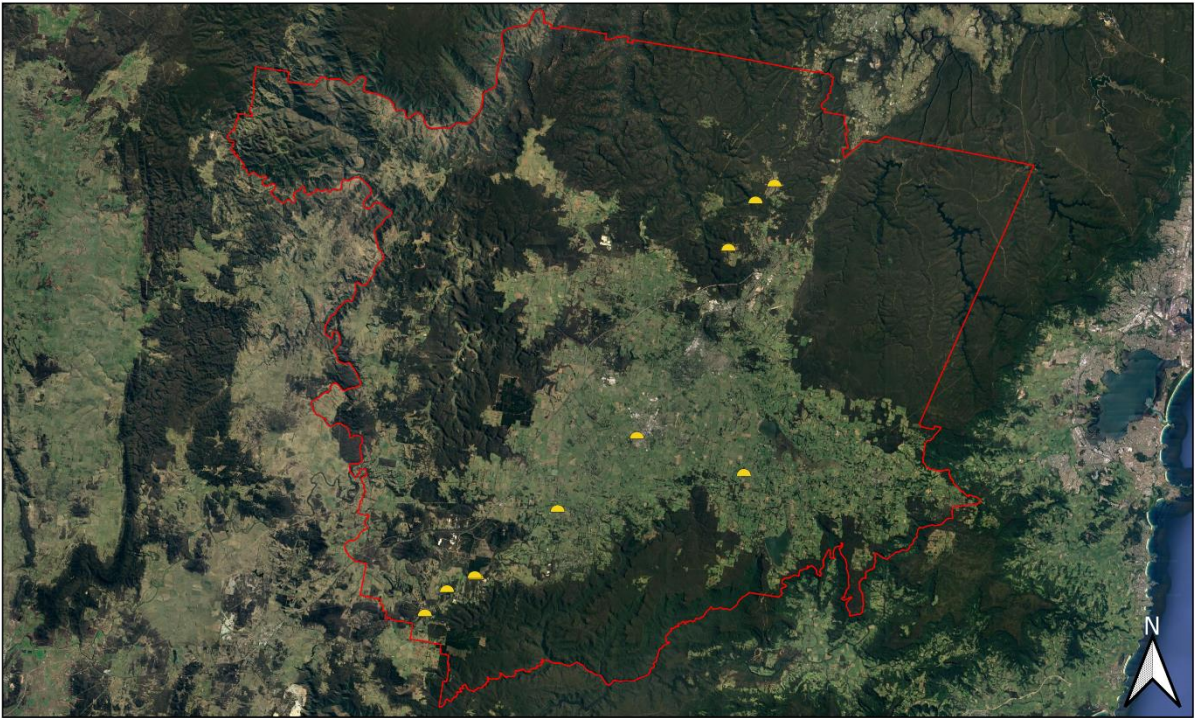
0 5 10 15 20 25 Kilometers



Legend

- Wingecarribee Shire Council
- Dusky Woodswallow







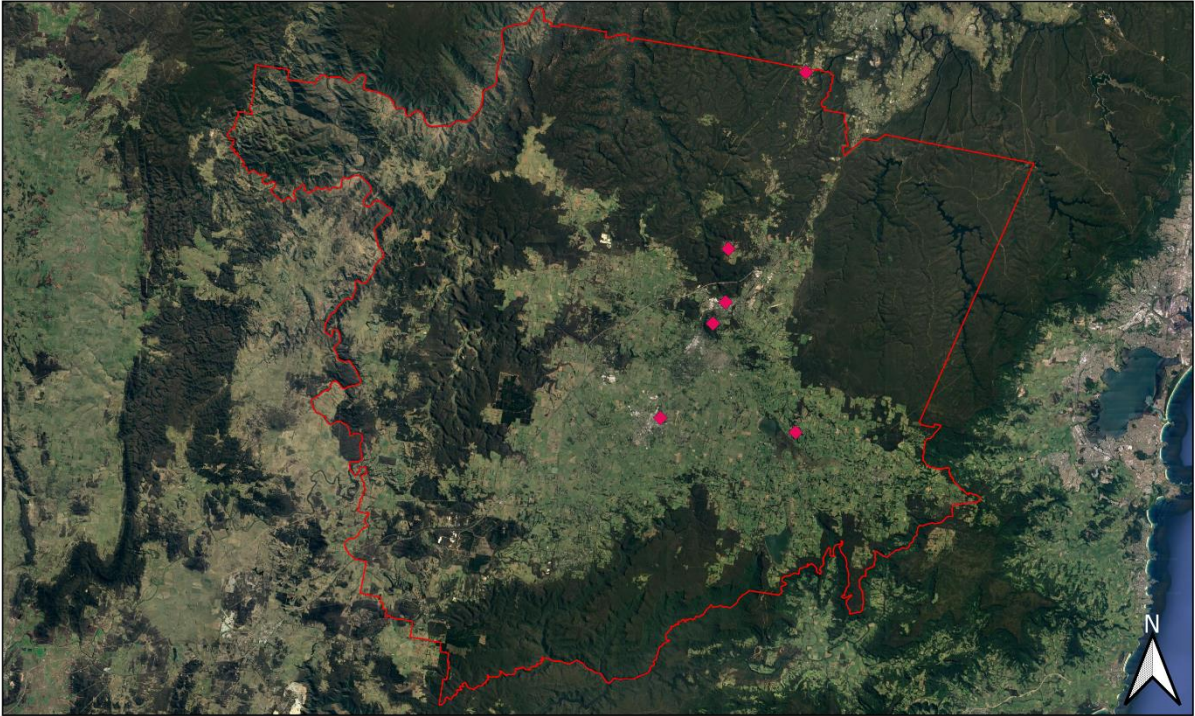
0 5 10 15 20 25 Kilometers



**Legend**

-  Wingecarribee Shire Council
-  Glossy Black-Cockatoo





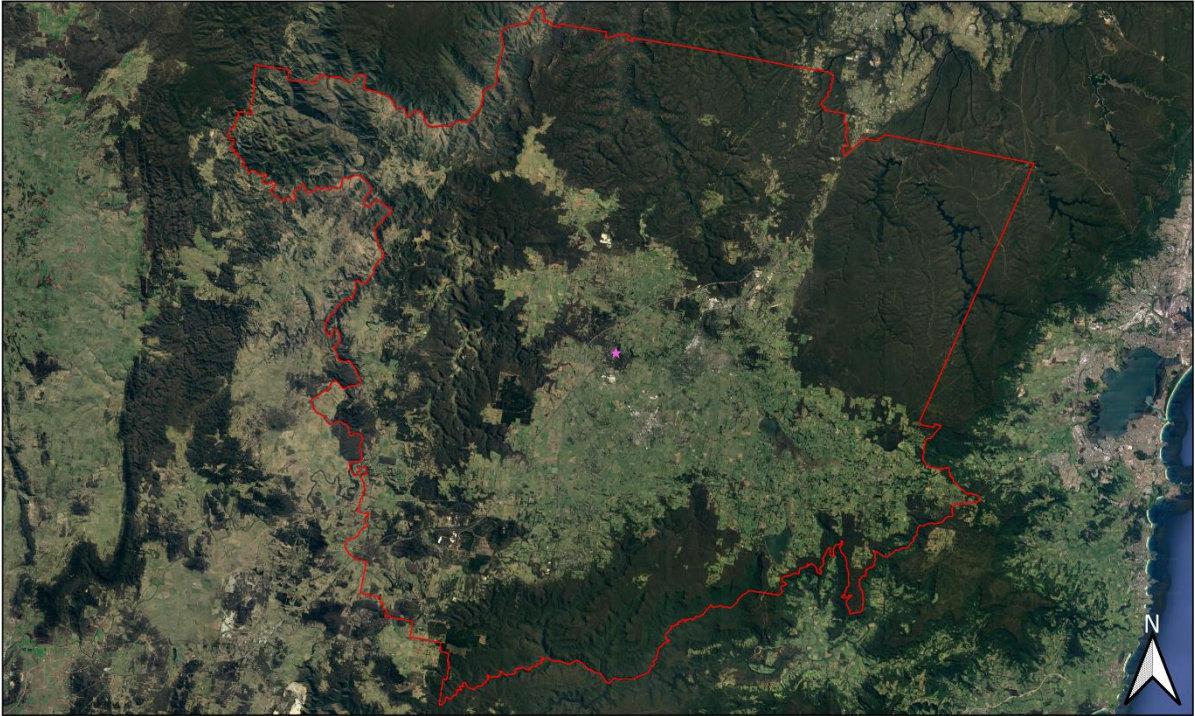
0 5 10 15 20 25 Kilometers



Legend

- Wingecarribee Shire Council
- Little Eagle







0 5 10 15 20 25 Kilometers

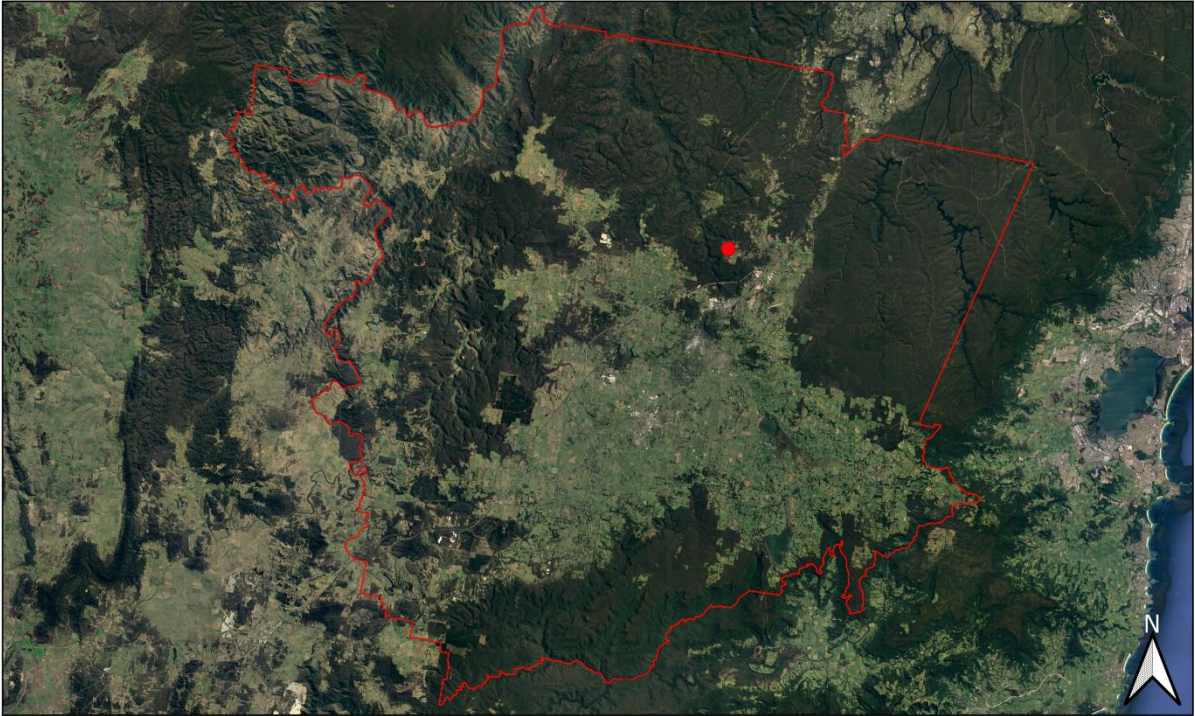


**Legend**

-  Wingecarribee Shire Council
-  Powerful Owl









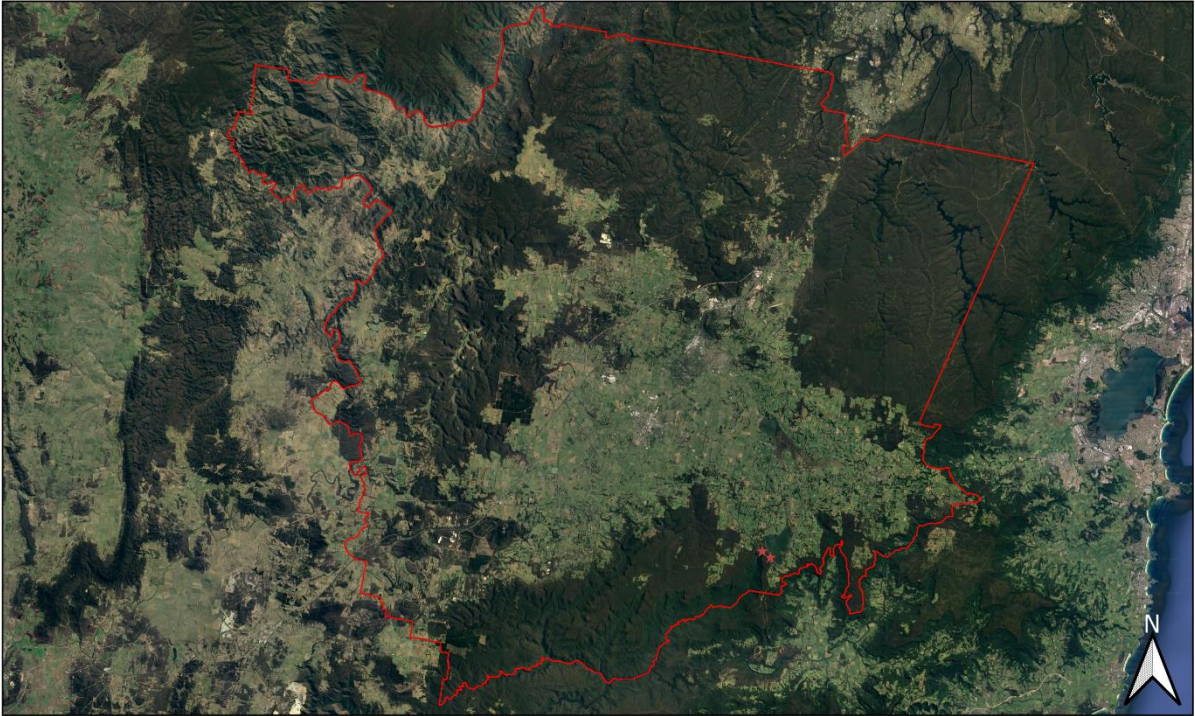
0 5 10 15 20 25 Kilometers



**Legend**

-  Wingecarribee Shire Council
-  Scarlet Robin





0 5 10 15 20 25 Kilometers



**Legend**

- Wingecarribee Shire Council
- ★ White-bellied Sea-Eagle

