AUSSIE BACKYARD BIRD COUNT

2021 Results for Murrindindi Shire Council

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18–24 October 2021

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BirdLife Australia

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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 **Murrindindi Shire Council.** The count ran from the **18th** to **24th October 2021**.

- **228** observers participated in the bird count, submitting **455** checklists.
- Submitted checklists ranged from between **1** and **13** per registered user (average of **2.83** per registered user).
- Observers counted birds for a combined duration of **145** hours and **7** minutes.
- Observers recorded a total of **15,549** 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 **0.22 %** (representing a single observation) to **79.12 %** (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 Murrindindi 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	166	192	217	228
Total bird count	8,078	7,905	13,389	15,549
Total surveys	277	261	439	455
Total species	142	160	134	146
Minimum checklists per user	1	1	1	1
Maximum checklists per user	10	8	12	13
Average checklists per user	2.47	2.58	2.85	2.83

Table 2: Total count and reporting rate (%) of all 146 bird species observed within the Murrindindi 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 (%)
Sulphur-crested Cockatoo	1599	60	White-naped Honeyeater	18	0.66
Australian Magpie	1487	79.12	Superb Lyrebird	16	1.98
Crimson Rosella	1070	60.88	Brown Treecreeper (NT)	15	1.98
Red Wattlebird	661	53.85	Weebill	15	1.76
Australian Wood Duck	622	20.66	Crescent Honeyeater	13	1.32
House Sparrow *	615	24.62	Grey Currawong	12	2.2
New Holland Honeyeater	503	30.11	Pallid Cuckoo	12	1.76
Welcome Swallow	485	23.96	Little Pied Cormorant	11	2.42
Galah	473	25.71	Australian Reed-Warbler	11	1.1
Superb Fairy-wren	471	32.31	Olive-backed Oriole	10	1.76
Australian King-Parrot	425	27.69	Southern Boobook	10	1.32
Common Myna *	384	23.74	Wonga Pigeon	10	1.32
Little Corella	372	17.8	Australasian Grebe	9	1.1
Common Blackbird *	361	35.6	Jacky Winter	9	1.1
Grey Fantail	314	32.97	Olive Whistler	9	0.88
Australian Raven	312	21.1	Red-rumped Parrot	9	0.88
Laughing Kookaburra	297	32.31	Satin Flycatcher	8	1.1
Yellow-faced Honeyeater	266	17.36	Grey Teal	8	0.66
Red-browed Finch	260	9.67	Nankeen Kestrel	7	1.54
Little Raven	252	13.41	Dusky Woodswallow	7	0.66
Common Starling *	237	6.59	Musk Lorikeet	7	0.44
Pacific Black Duck	223	12.31	Whistling Kite	6	0.88
Pied Currawong	198	22.64	Red-browed Treecreeper	6	0.66
Satin Bowerbird	193	13.41	Black Swan	6	0.44
Eastern Spinebill	167	17.8	Blue-winged Parrot	6	0.44
Magpie-lark	157	16.7	Freckled Duck (En)	6	0.44
Brown Thornbill	153	11.21	Flame Robin	6	0.22
Eastern Rosella	134	10.33	Varied Sittella	6	0.22
White-browed Scrubwren	127	11.43	Horsfield's Bronze-Cuckoo	5	1.1
Grey Shrike-thrush	123	16.48	Australasian Darter	5	0.88
Silvereye	117	5.93	Lewin's Honeyeater	5	0.88

Striated Pardalote	111	9.89	Blue-faced Honeyeater	5	0.44
Yellow-rumped Thornbill	109	6.59	Australian Shelduck	5	0.22
Spotted Pardalote	107	12.09	Azure Kingfisher (NT)	4	0.88
Willie Wagtail	102	11.87	Brown Goshawk	4	0.88
Straw-necked Ibis	102	1.1	Restless Flycatcher	4	0.88
Crested Pigeon	93	9.45	White-necked Heron	4	0.88
Long-billed Corella	93	5.49	Leaden Flycatcher	4	0.66
Striated Thornbill	82	5.49	Spotted Dove *	4	0.66
Yellow-tailed Black-Cockatoo	76	4.18	Yellow-billed Spoonbill	4	0.66
Australasian Shoveler (VU)	63	1.1	Brush Bronzewing	4	0.44
Sacred Kingfisher	61	7.25	Fairy Martin	4	0.22
Purple Swamphen	61	3.08	Australian Hobby	3	0.44
Golden Whistler	56	6.15	Mistletoebird	3	0.44
Australian White Ibis	55	3.74	Swamp Harrier	3	0.44
White-faced Heron	53	7.69	Tawny Frogmouth	3	0.44
Eurasian Coot	52	2.64	Little Grassbird	3	0.22
Rufous Whistler	49	6.59	Musk Duck (VU)	3	0.22
White-throated Treecreeper	48	6.15	Eastern Koel	2	0.44
Eastern Yellow Robin	43	3.74	Peregrine Falcon	2	0.44
White-winged Chough	43	2.2	Rock Dove *	2	0.44
Yellow Thornbill	42	2.86	Western Gerygone	2	0.44
Chestnut Teal	41	2.2	White-throated Gerygone	2	0.44
Noisy Miner	39	2.86	Black-shouldered Kite	2	0.22
Masked Lapwing	38	4.18	Buff-banded Rail	2	0.22
Grey Butcherbird	37	4.62	Domestic Duck *	2	0.22
Buff-rumped Thornbill	37	3.52	Little Egret (En)	2	0.22
Large-billed Scrubwren	37	3.3	Rufous Songlark	2	0.22
Gang-gang Cockatoo	35	3.52	Australian Pelican	1	0.22
White-eared Honeyeater	34	2.86	Brown Falcon	1	0.22
Common Bronzewing	32	3.96	Brush Cuckoo	1	0.22
Rainbow Lorikeet	29	2.2	Cattle Egret	1	0.22
Tree Martin	29	0.22	Collared Sparrowhawk	1	0.22
Dusky Moorhen	26	1.76	Common Greenfinch *	1	0.22
Brown-headed Honeyeater	25	2.2	Great Cormorant	1	0.22
European Goldfinch *	25	1.76	Great Pied Cormorant	1	0.22
Bell Miner	23	2.2	Little Eagle	1	0.22
Fan-tailed Cuckoo	22	4.18	Nankeen Night-Heron (NT)	1	0.22
White-plumed Honeyeater	22	1.98	Painted Button-quail	1	0.22
Black-faced Cuckoo-shrike	21	3.08	Rainbow Bee-eater	1	0.22

Noisy Friarbird	19	3.52	Scarlet Robin	1	0.22
Eastern Whipbird	19	2.86	Shining Bronze-Cuckoo	1	0.22
Wedge-tailed Eagle	18	2.86	White-bellied Sea-Eagle (VU)	1	0.22

Survey Distribution

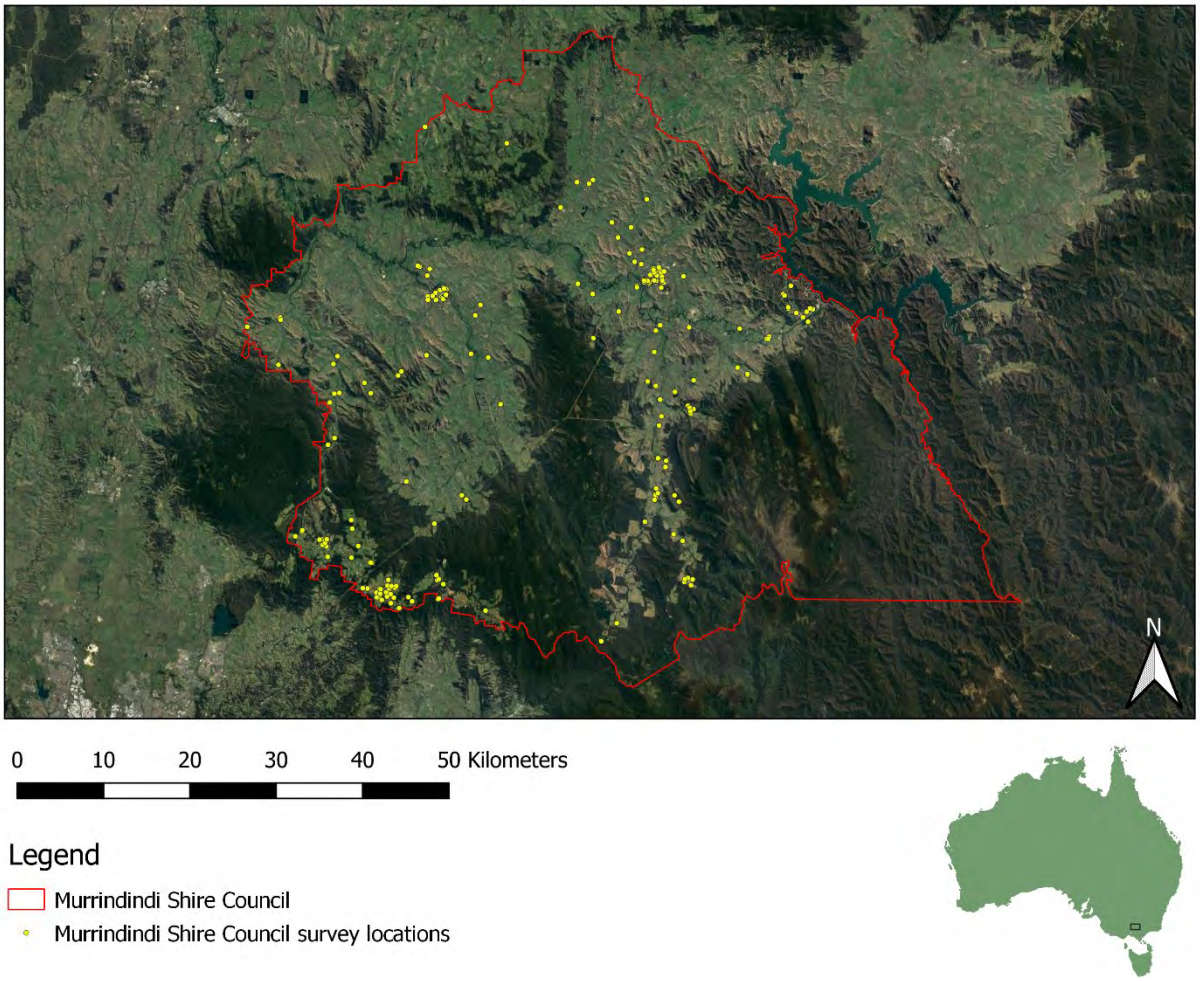

Figure 1: Bird observations recorded within the Murrindindi Shire Council boundaries during the 2021 Aussie Backyard Bird Count. Bird observations that were recorded in a single survey overlap due to having the same GPS coordinates, so each yellow circle represents a single complete survey.

Least Common Species

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

- Australian Pelican
- Australian Shelduck
- Black-shouldered Kite
- Brown Falcon
- Brush Cuckoo
- Buff-banded Rail
- Cattle Egret
- Collared Sparrowhawk
- Common Greenfinch *
- Domestic Duck *
- Fairy Martin
- Flame Robin
- Great Cormorant
- Great Pied Cormorant
- Little Eagle
- Little Egret (En)
- Little Grassbird
- Musk Duck (VU)
- Nankeen Night-Heron (NT)
- Painted Button-quail
- Rainbow Bee-eater
- Rufous Songlark
- Scarlet Robin
- Shining Bronze-Cuckoo
- Tree Martin
- Varied Sittella
- White-bellied Sea-Eagle (VU)

25 the **27** bird species reported only once are native to Australia. The Domestic Duck is a descendant of the Northern Mallard and not truly a distinct species, that can escape captivity or establish in urban parks after being abandoned. **Four** of the 23 native species are classified as threatened in the state of Victoria. Five of the 25 native species are raptors, and nine are associated with aquatic habitats such as lakes and wetlands. Most of the remaining species occur either in habitats that occur marginally in Murrindindi Shire or are restricted to relatively inaccessible habitats like native woodlands and wet forests. 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

Nine of the ten most abundant bird species recorded within the Murrindindi Shire Council boundaries are native to Victoria. The House Sparrow is introduced. The top ten bird abundances ranged from 471 to 1,599 individual birds (Figure 2). All nine native species are considered to have secure populations in Victoria.

The most *counted* species, the Sulphur-crested Cockatoo was the fifth-most counted species across the state, and fourth-most counted in the country. The second-most counted species, the Australian Magpie, was also the second-most counted in the state and third nationally. The third-most abundant species, the Crimson Rosella, was the 17th-most counted species in the state and 20th nationally. The remainder of the species in the Murrindindi Shire Council Top 10 were also ranked fairly highly in state counts (all within the top 25), reflecting the similarity of the council's urban environments to other major population centres in central Victoria.

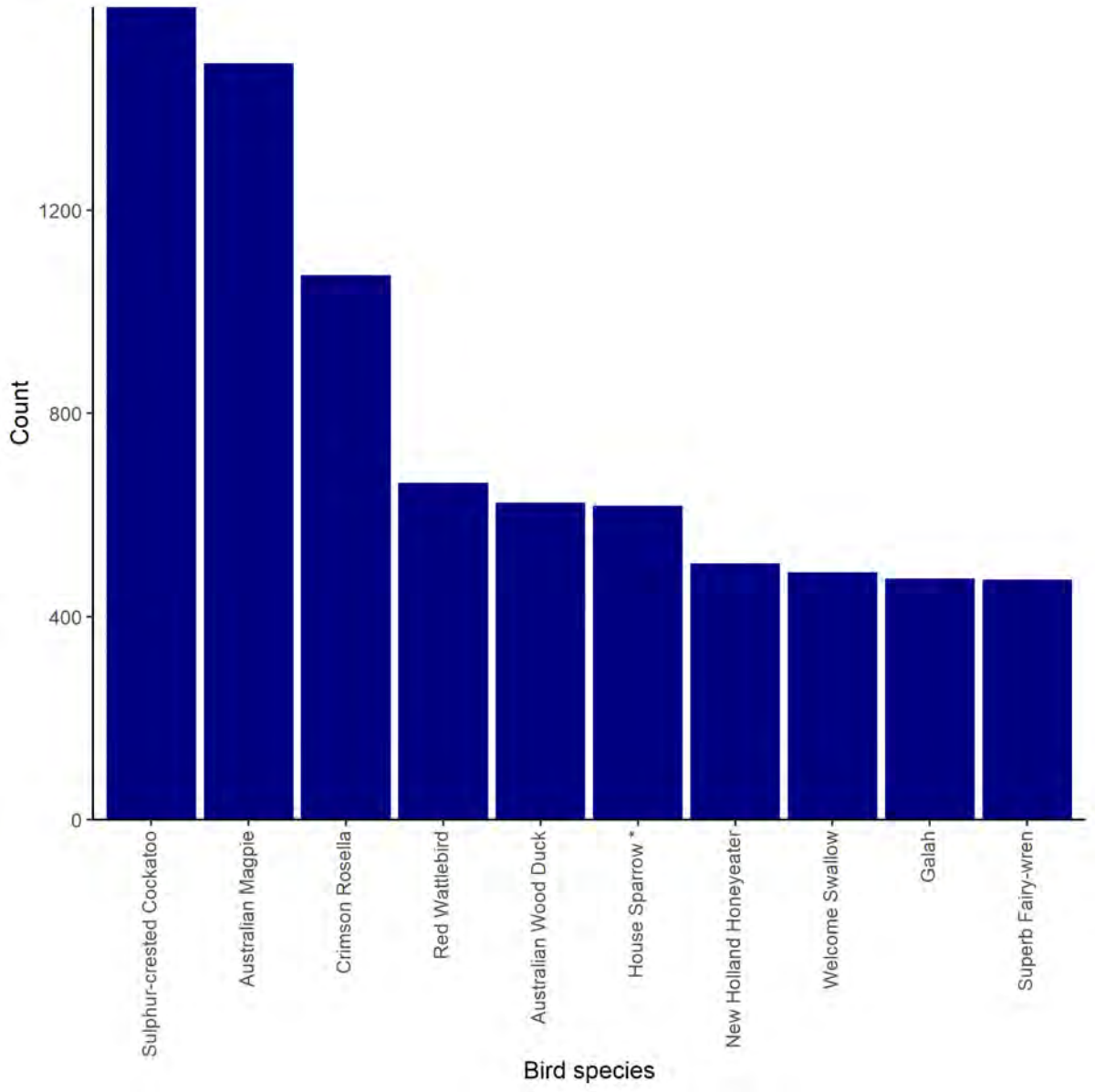

Figure 2: The ten most abundant bird species within the Murrindindi Shire Council boundaries during the 2021 Aussie Backyard Bird Count.

All of the ten most frequently *reported* species within Murrindindi Shire Council boundaries were reported at higher rates than the state average and national averages (Figure 3). The Australian King-Parrot, Crimson Rosella, Grey Fantail and Sulphur-crested Cockatoo were all reported at rates considerably higher than both state- and nation-wide averages. Specifically, the Australian King-Parrot and Crimson Rosella are more common in cooler upland regions of Victoria than the highly urbanised lowlands of Melbourne's central and western suburbs, which may explain their increased reporting rate in Murrindindi Shire. The Common Blackbird was the only introduced species in the top ten most reported species for Murrindindi Shire Council compared with three out of ten being introduced species for the top ten state-wide reporting rates.

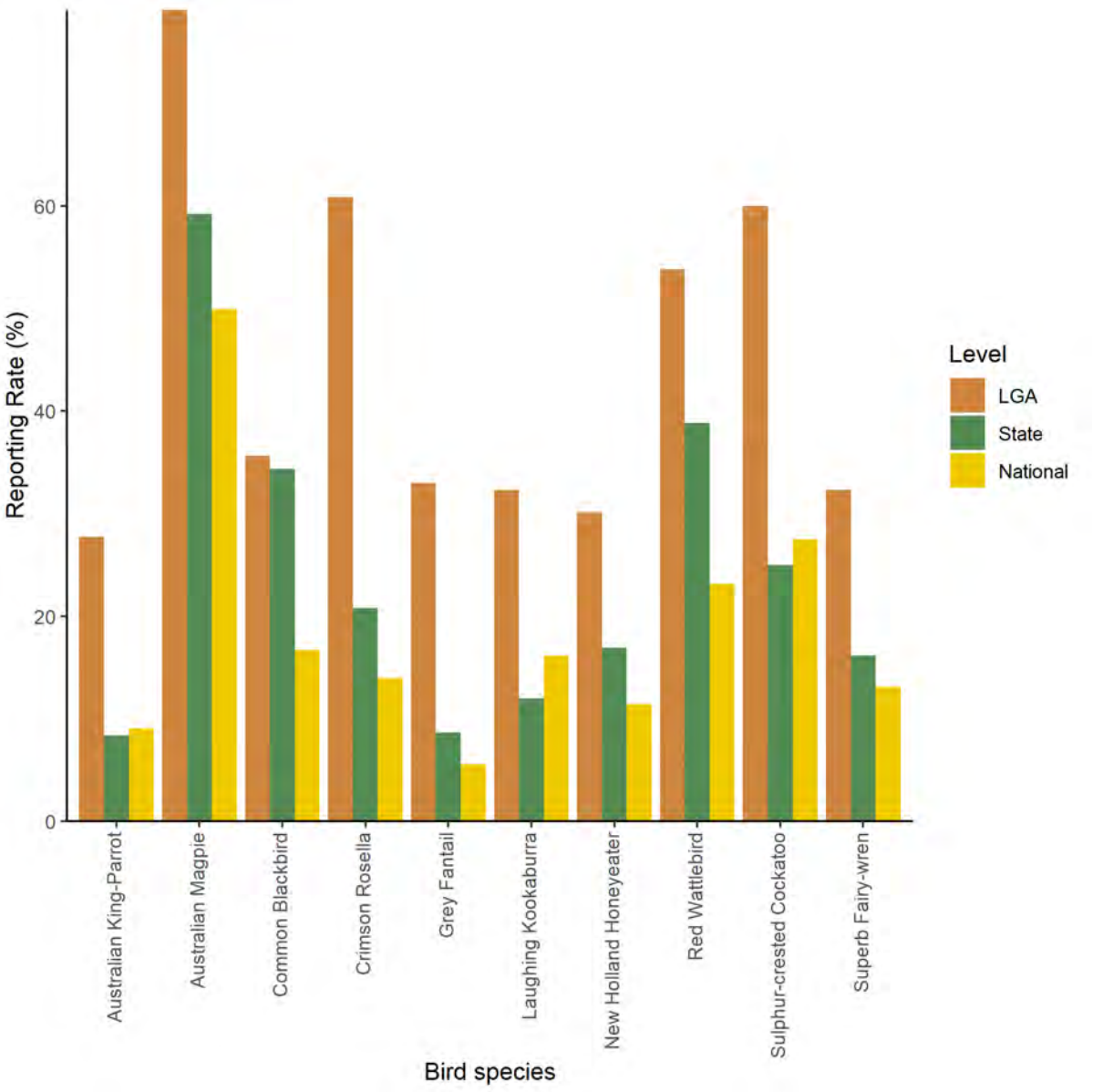

Figure 3: Comparison of the reporting rates (%) of the ten most frequently recorded species during the 2021 Aussie Backyard Bird Count within the Murrindindi Shire Council boundaries, with Victorian and national reporting rates.

Introduced Species

Nine introduced bird species were recorded within the council boundaries during the 2021 Aussie Backyard Bird Count (Table 3, Figure 4). Introduced species were tightly clustered around larger settlements (Kinglake, Yea, Alexandra, Eildon, and Buxton) (Figure 4); however, this may be due to survey bias as most of the local human population live in these areas, and few surveys were submitted from elsewhere. The Common Blackbird (35.6 %), House Sparrow (24.62 %), and Common Myna (23.74 %) were the introduced species reported in the highest proportion of surveys within

the council boundaries, though Common Starling were also reported in over 6 % of surveys. Figure 4 gives an overall indication of introduced species distribution across Murrindindi 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 Murrindindi Shire Council boundaries during the 2021 Aussie Backyard Bird Count.

Bird Species	Count	Proportion of total individuals (%)	Number of surveys detected in	Reporting rate (%)
House Sparrow	615	3.96	112	24.62
Common Myna	384	2.47	108	23.74
Common Blackbird	361	2.32	162	35.6
Common Starling	237	1.52	30	6.59
European Goldfinch	25	0.16	8	1.76
Spotted Dove	4	0.03	3	0.66
Rock Dove	2	0.01	2	0.44
Domestic Duck	2	0.01	1	0.22
Common Greenfinch	1	0.01	1	0.22

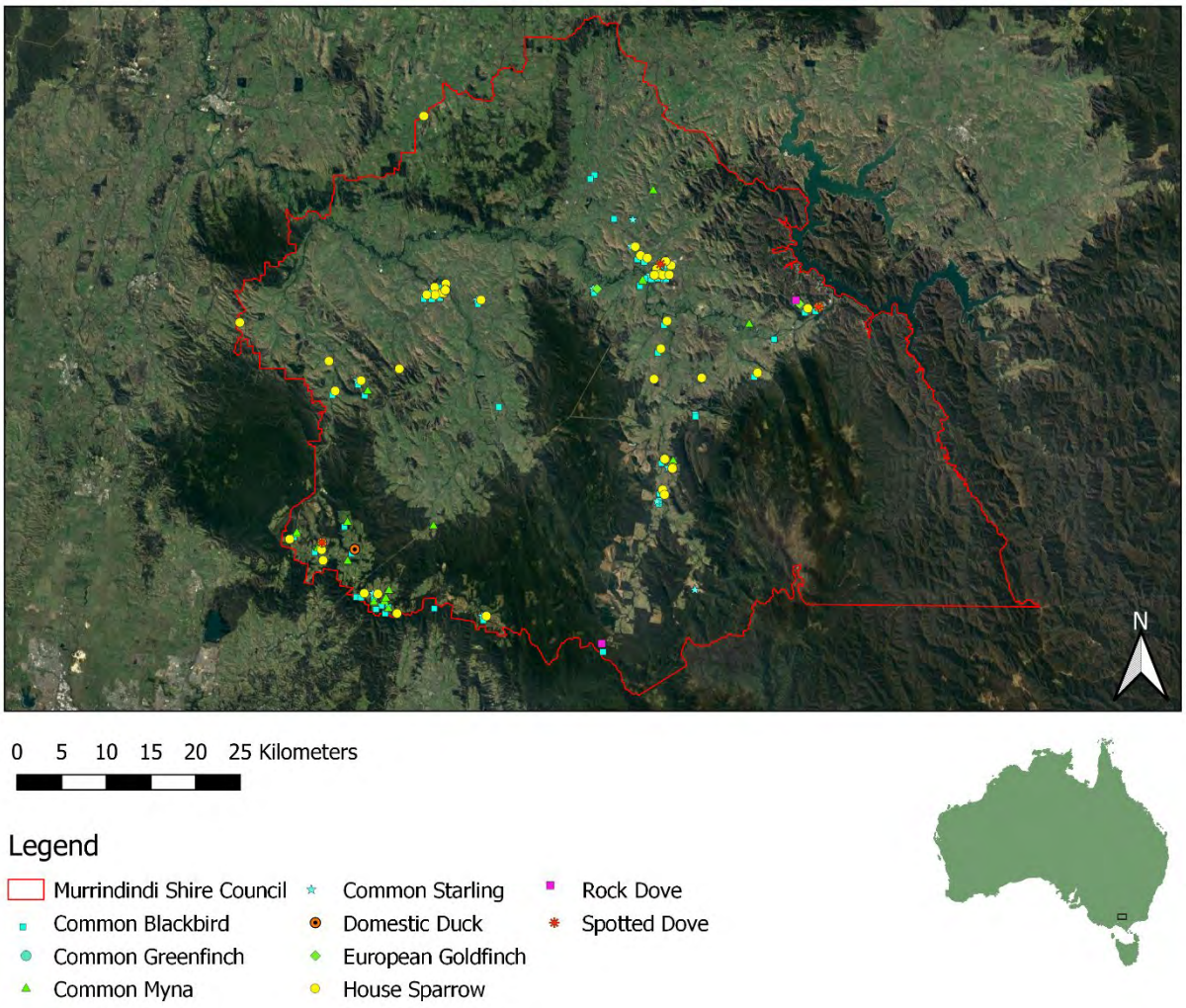

Figure 4: Distribution of the introduced bird species within the Murrindindi boundaries during the 2021 Aussie Backyard Bird Count. Bird observations that were recorded in a single survey overlap due to having the same GPS co-ordinates.

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.

In total, **eight** species of bird listed as threatened were recorded within the council boundaries (Table 4, Figure 5). The Brown Treecreeper was recorded in almost 2 % of surveys, and the Australasian Shoveler was recorded in just over 1 % of surveys. Figure 5 gives an overall indication of

threatened species distribution across Murrindindi 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 Murrindindi Shire Council boundaries.

Bird Species	Status	Count	Number of surveys detected in	Reporting rate (%)
Australasian Shoveler	VU	63	5	1.1
Musk Duck	VU	3	1	0.22
White-bellied Sea-Eagle	VU	1	1	0.22
Azure Kingfisher	NT	4	4	0.88
Brown Treecreeper	NT	15	9	1.98
Nankeen Night-Heron	NT	1	1	0.22
Freckled Duck	EN	6	2	0.44
Little Egret	EN	2	1	0.22

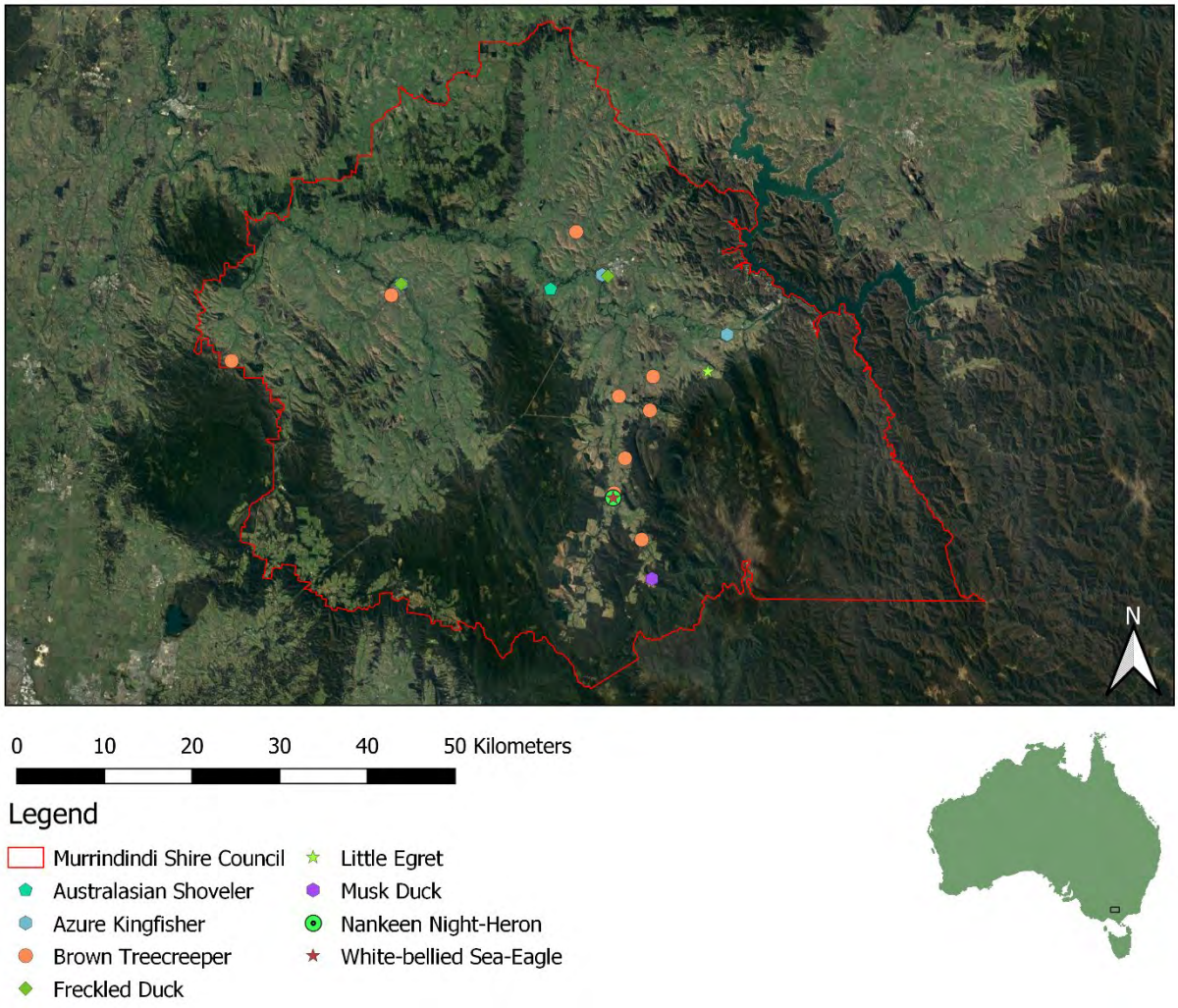

Figure 5: Distribution of the threatened bird species within the Murrindindi boundaries during the 2021 Aussie Backyard Bird Count. Bird observations that were recorded in a single survey overlap due to having the same GPS co-ordinates.

Six threatened waterbird species were recorded within the Murrindindi Shire Council boundaries in 2021:

- Australasian Shoveler (Vulnerable)
- Musk Duck (Vulnerable)
- Azure Kingfisher (Near Threatened)
- Nankeen Night-Heron (Near Threatened)
- Freckled Duck (Endangered)
- Little Egret (Endangered)

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).

One threatened raptor species was recorded within the Murrindindi Shire Council boundaries in 2021:

- White-bellied Sea-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 woodland-associated bird species was recorded within the Murrindindi Shire Council boundaries in 2021:

- Brown Treecreeper (Near Threatened)

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.

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 computer 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 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

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 of 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

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.

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.

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.

Find out more

Website:
birdlife.org.au/projects/urban-birds/birds-in-schools-project

Email:
Alexandra Johnson,
Birds in Schools Project Officer
alexandra.johnson@birdlife.org.au

References

BirdLife Australia (2019). *Working list of Australian birds v3*. Retrieved from http://BirdLife.org.au/conservation/science/taxonomy (accessed 13/12/2021).

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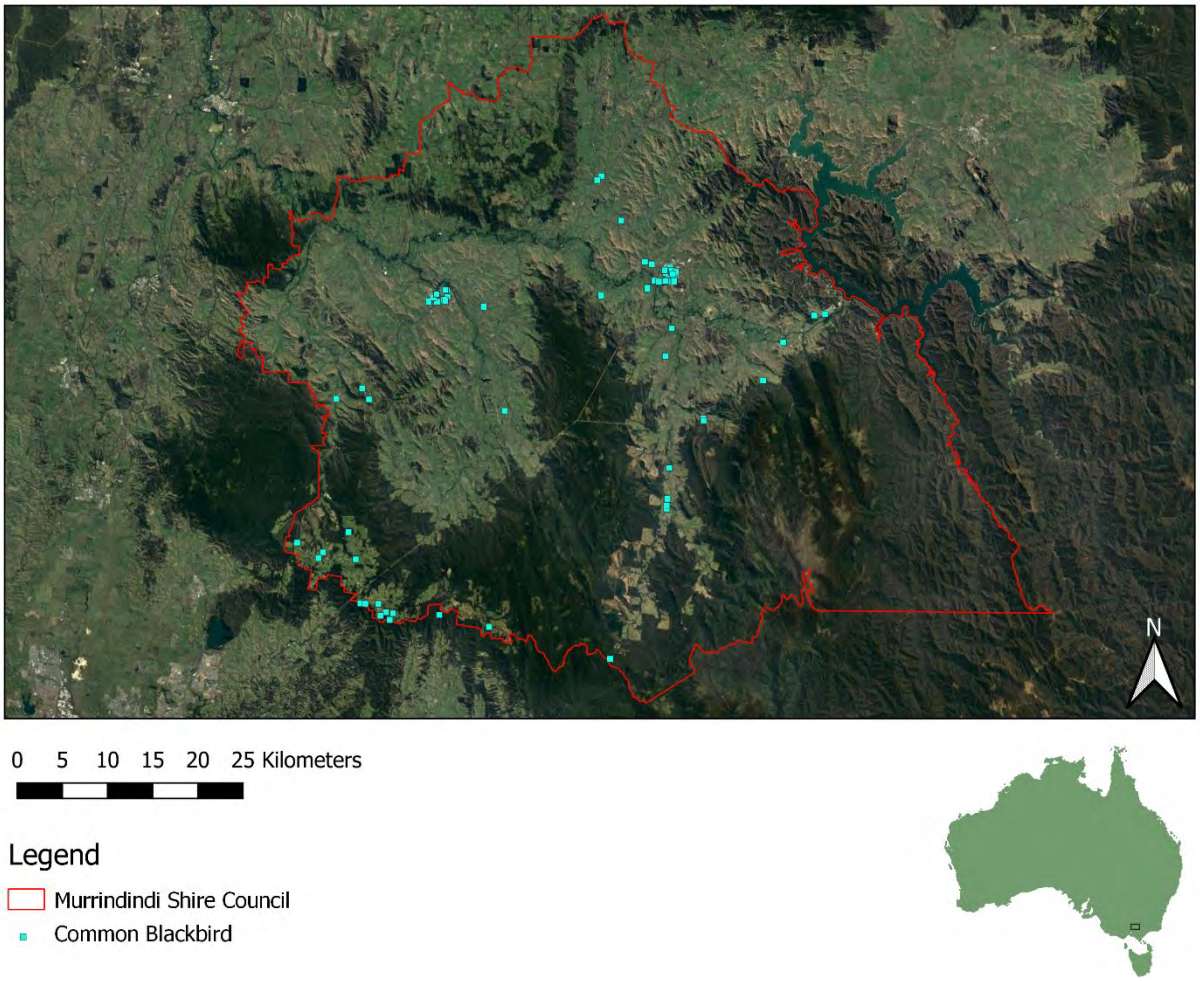
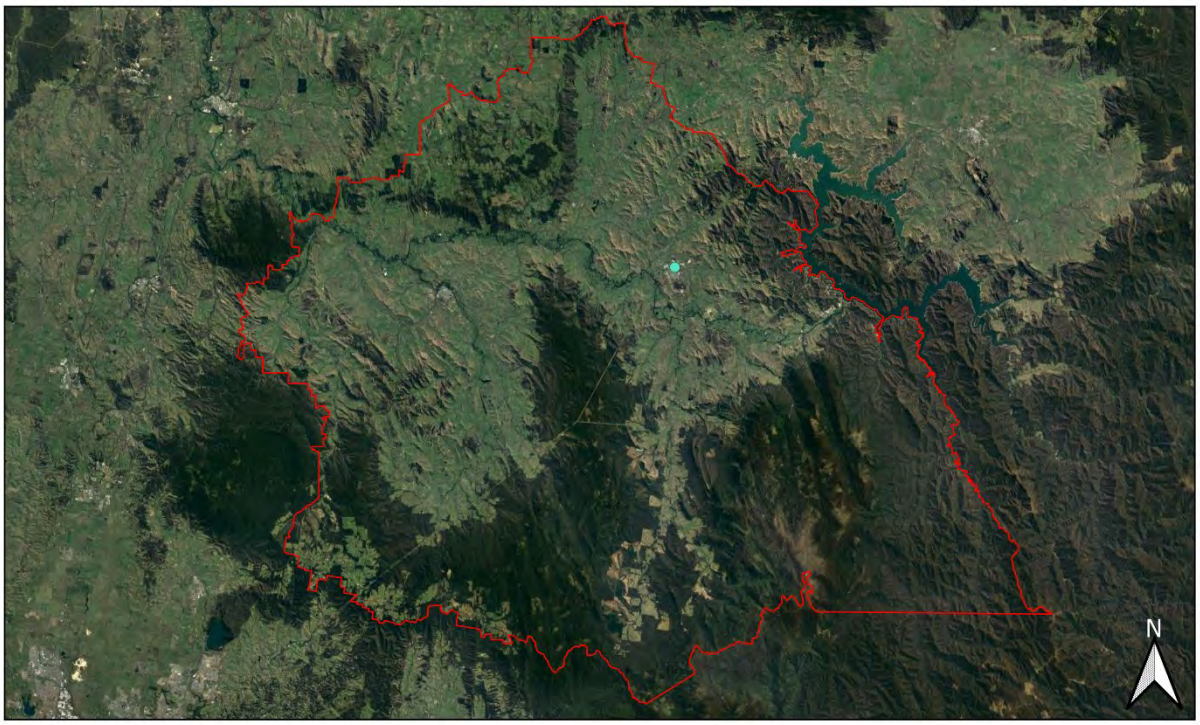
Appendix One – Introduced Species Maps

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.





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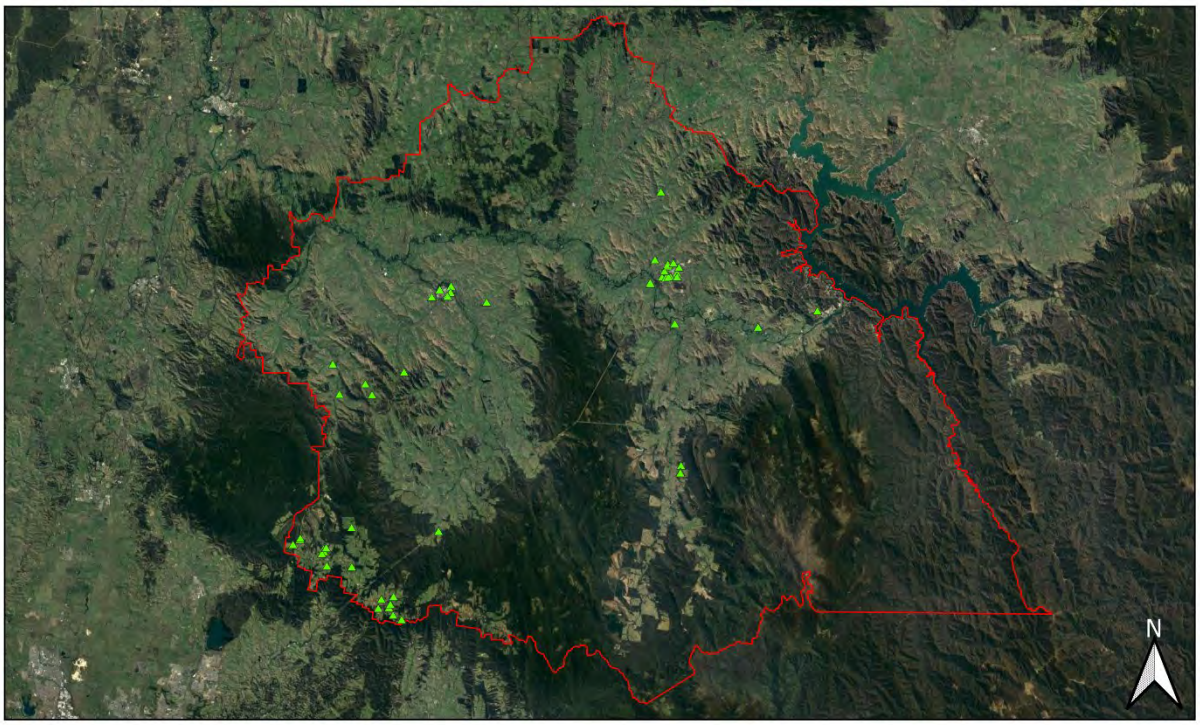
Murrindindi Shire Council

Common Greenfinch



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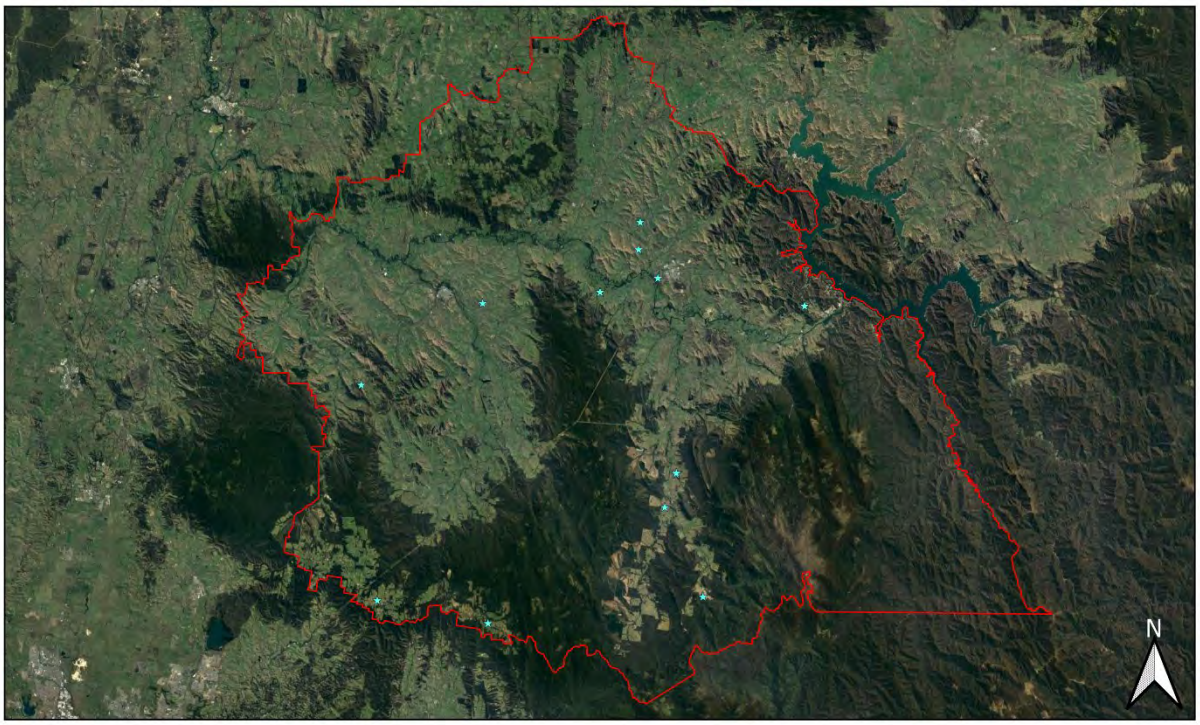
Murrindindi Shire Council

Common Myna



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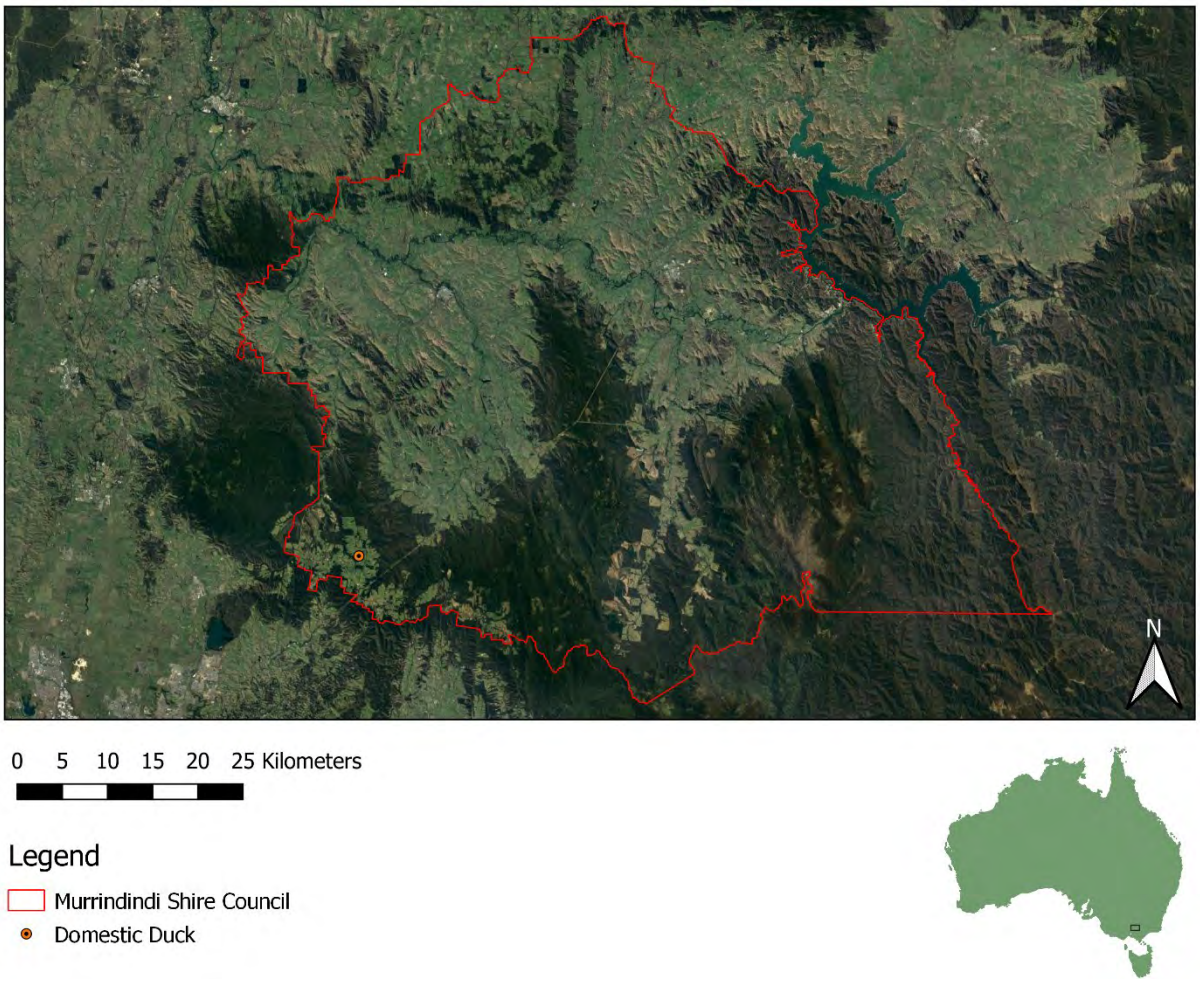
Common Starling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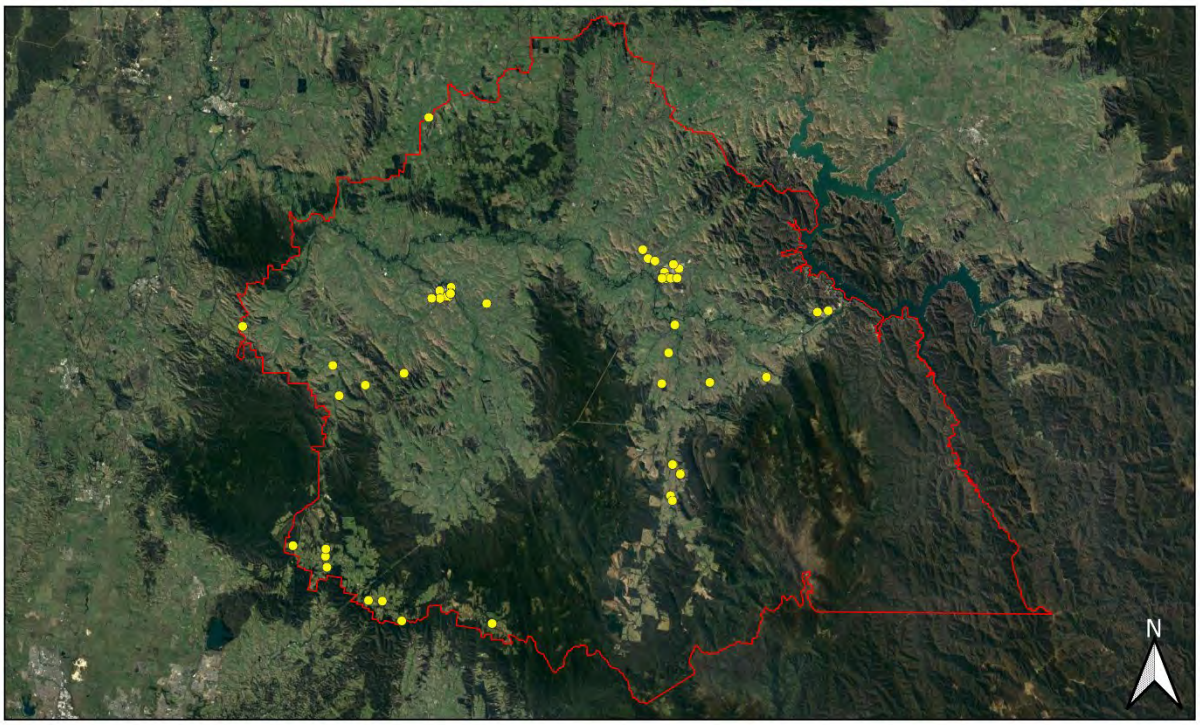
Domestic Duck



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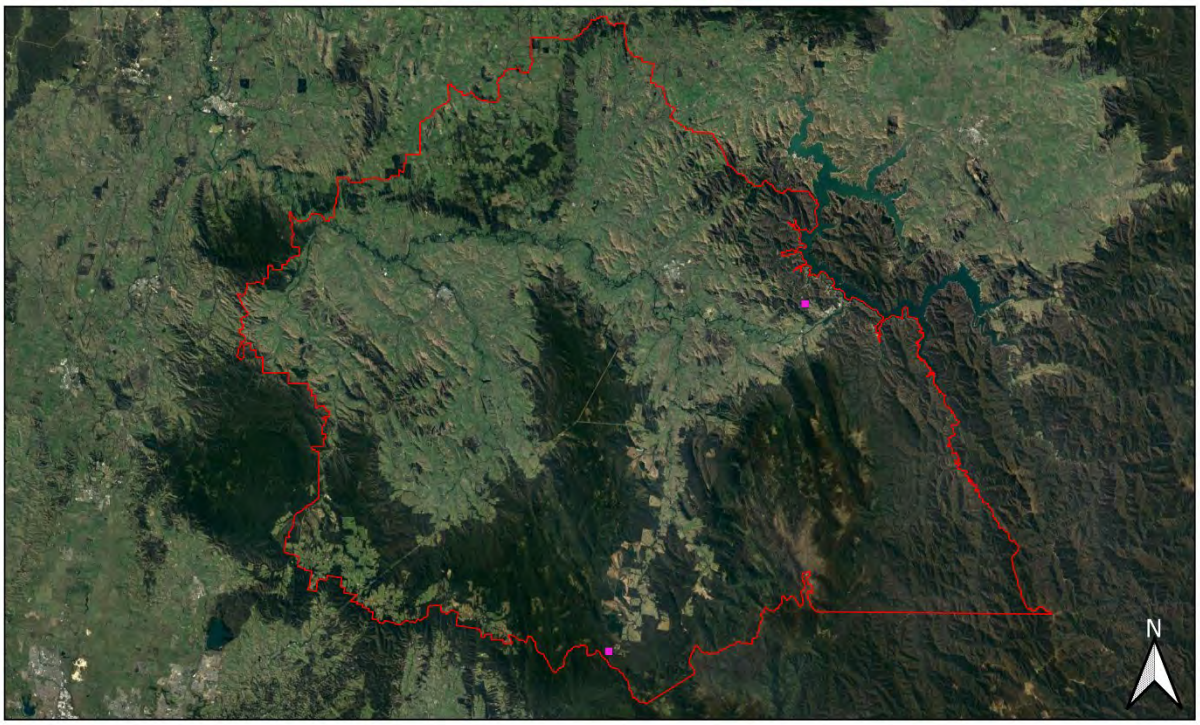
Murrindindi Shire Council

House Sparrow



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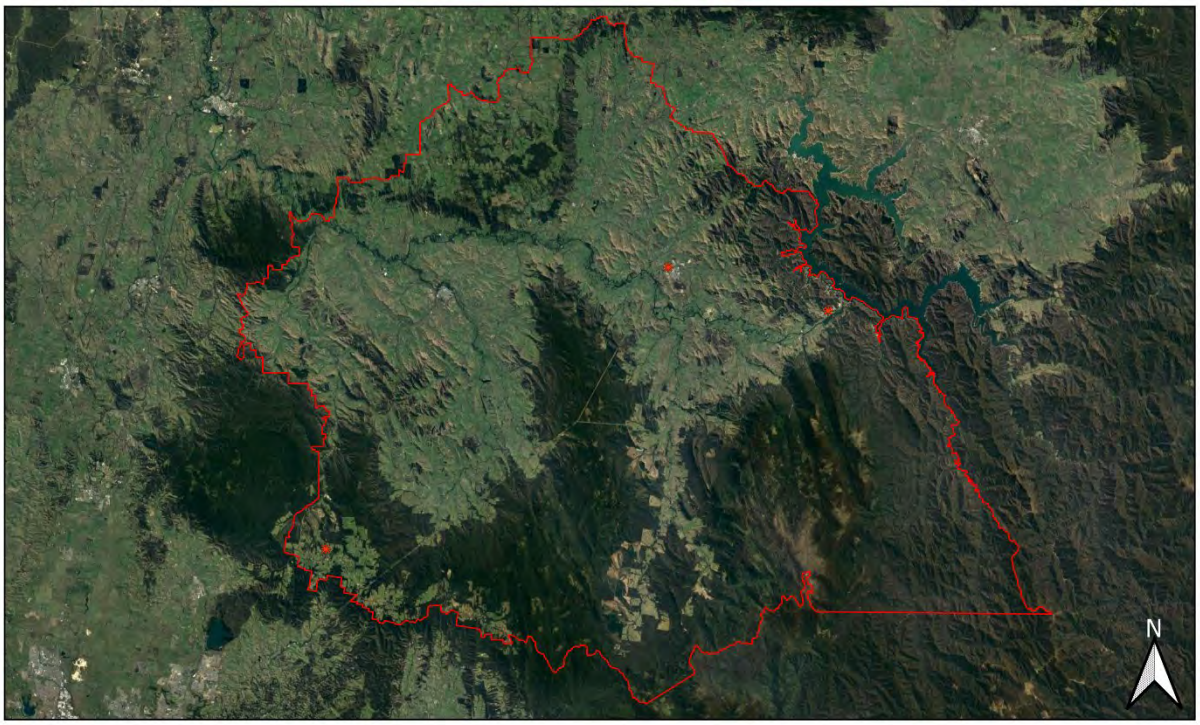
Murrindindi Shire Council

Rock Dove



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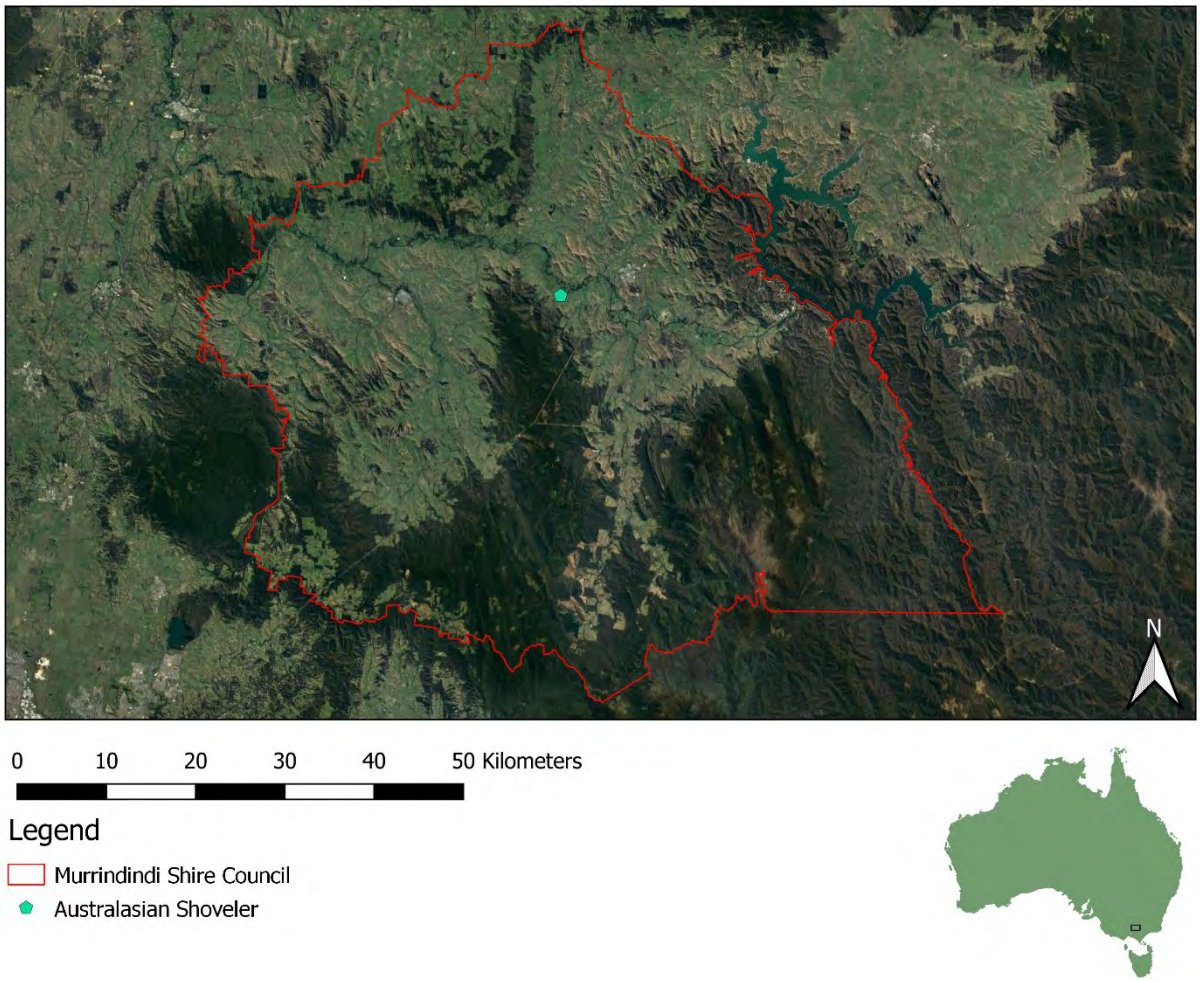
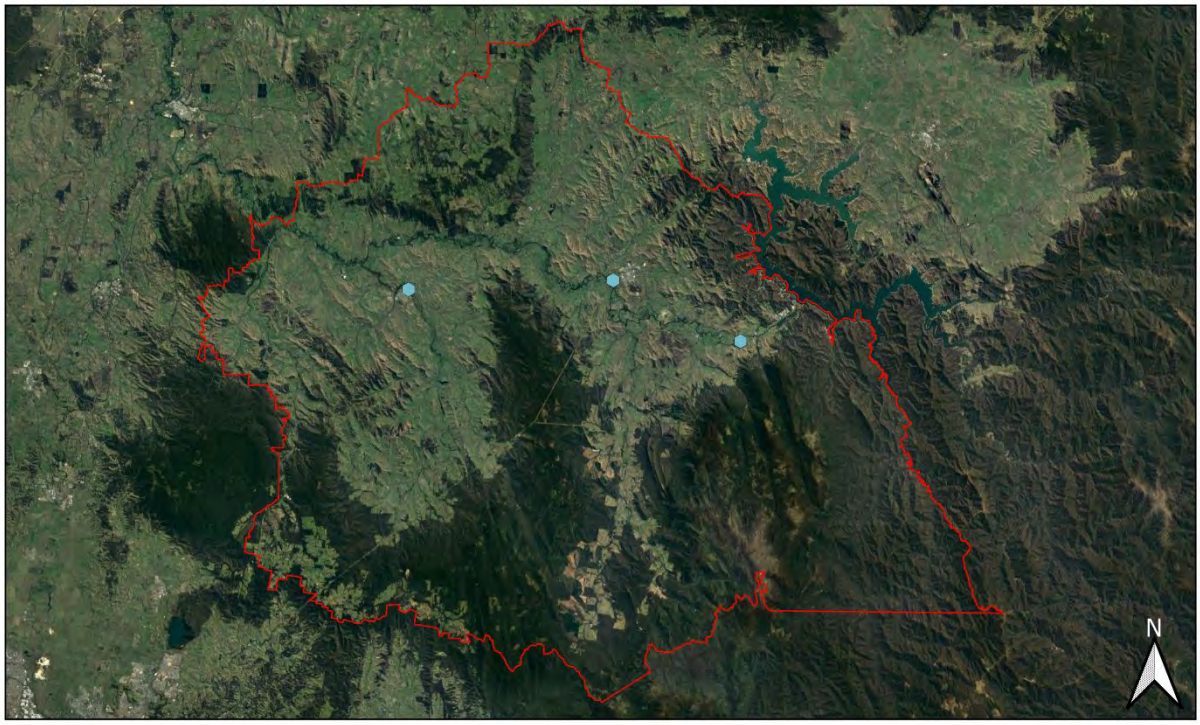
Murrindindi Shire Council

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.





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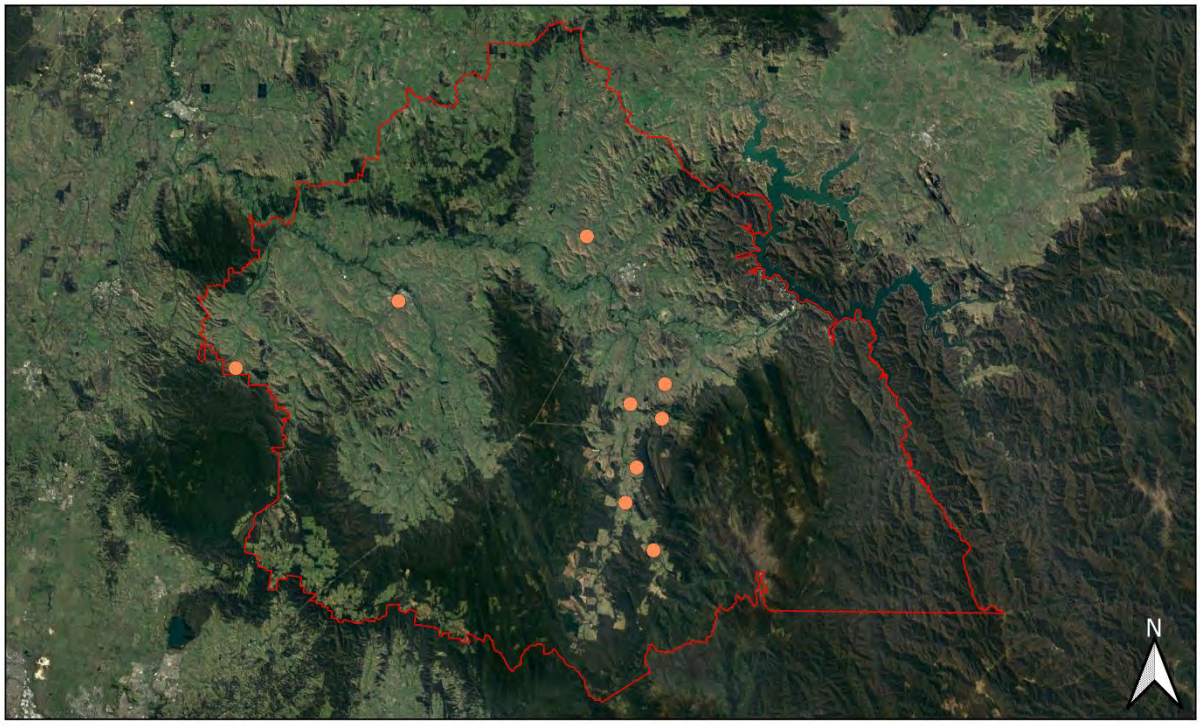
Murrindindi Shire Council

Azure Kingfisher



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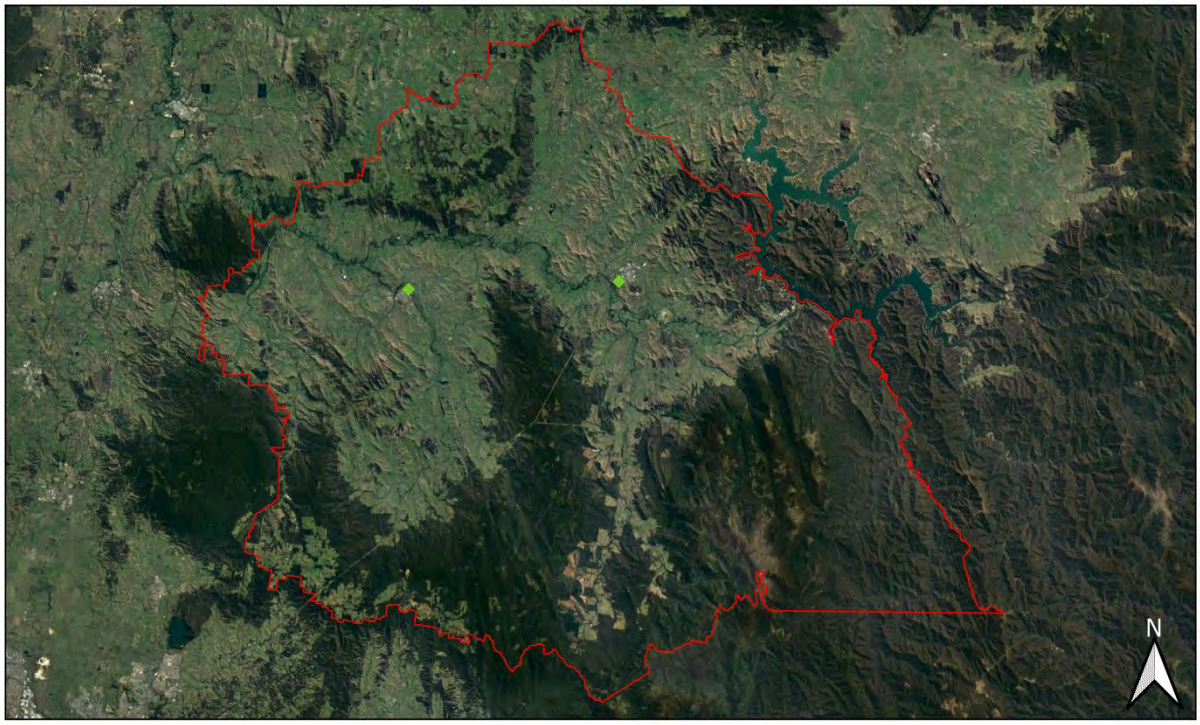
Murrindindi Shire Council

Brown Treecreeper



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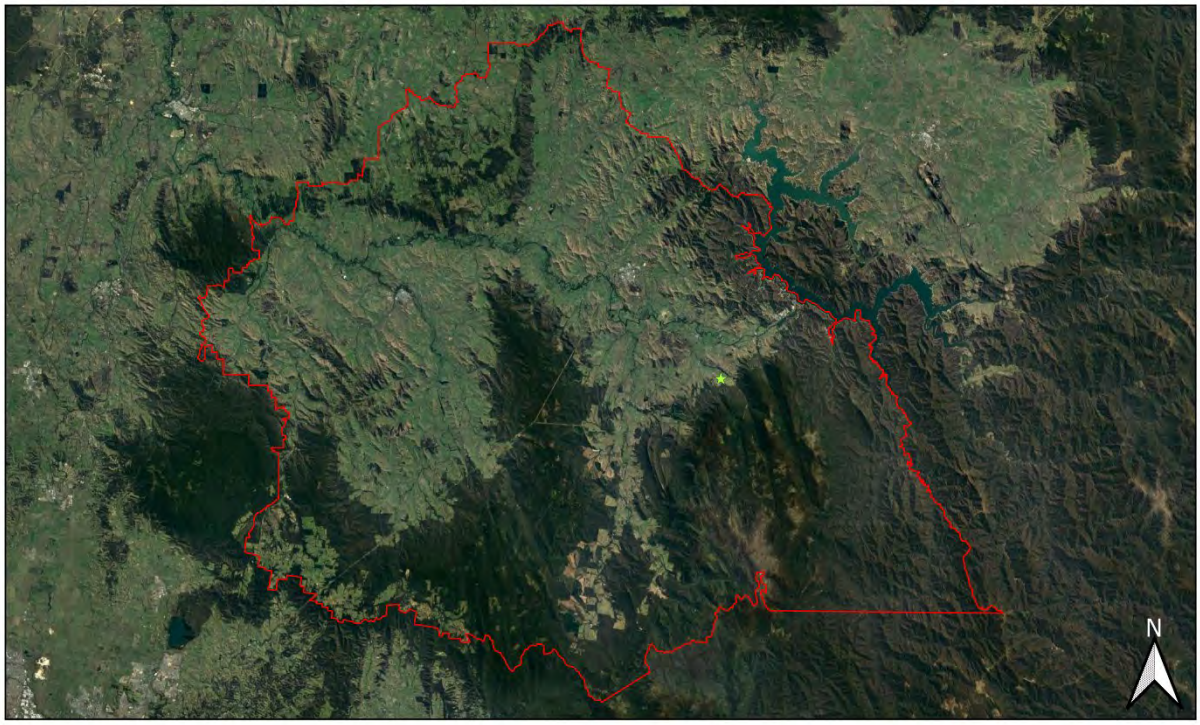
Murrindindi Shire Council

Freckled Duck



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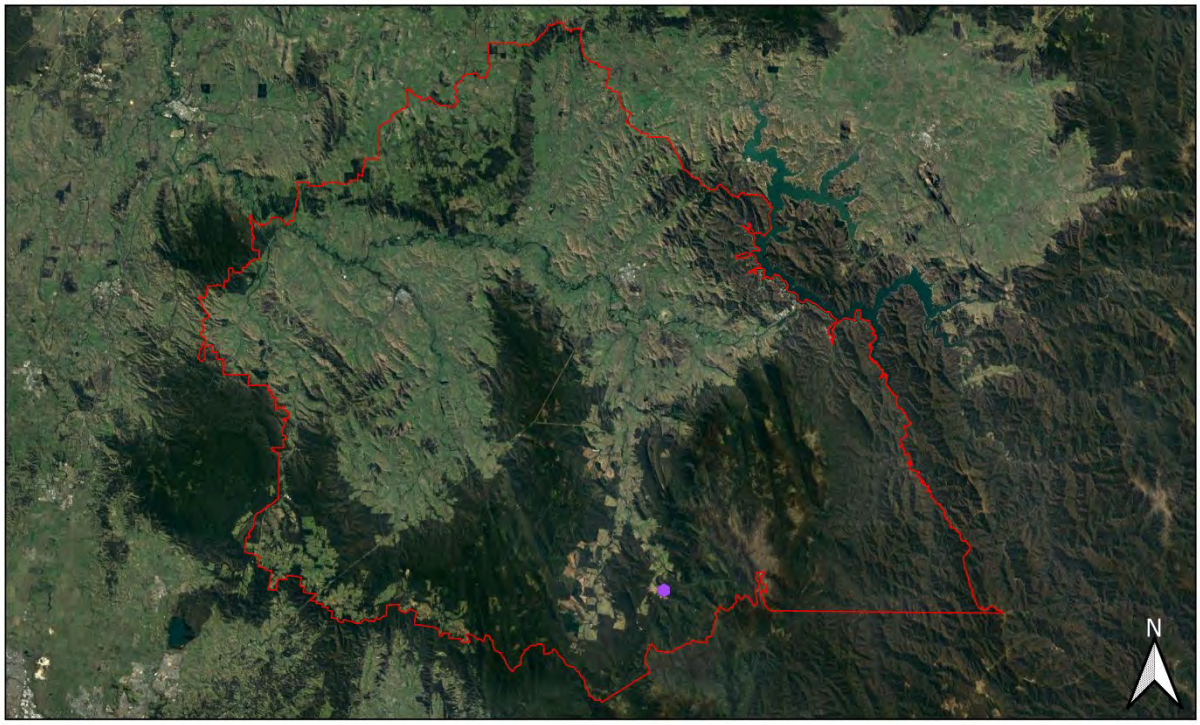
Murrindindi Shire Council

Little Egret



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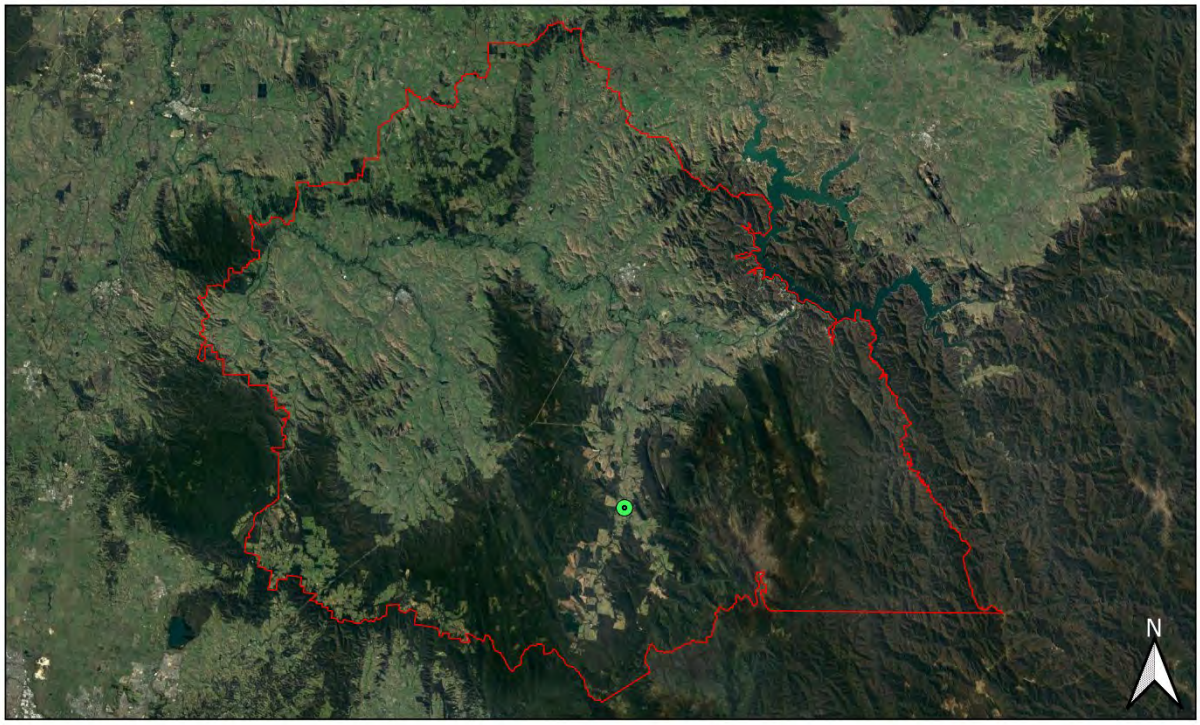
Murrindindi Shire Council

Musk Duck



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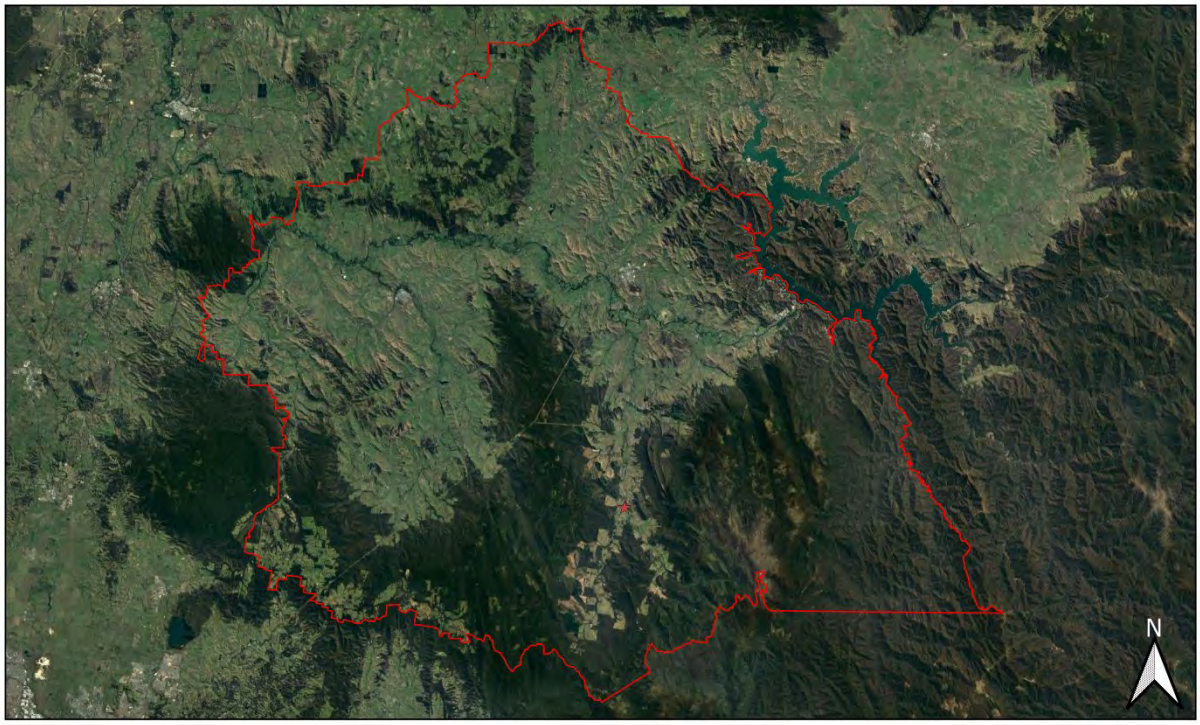
Murrindindi Shire Council

Nankeen Night-Heron



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Murrindindi Shire Council

White-bellied Sea-Eagle