# NSW wildlife rehabilitation

## Annual report 2022–23

**Department of Climate Change,
Energy, the Environment and Water**

NSW GOVERNMENT

# Acknowledgement of Country

Department of Climate Change, Energy, the Environment and Water acknowledges the Traditional Custodians of the lands where we work and live.

We pay our respects to Elders past, present and emerging.

This resource may contain images, or names of deceased persons in photographs or historical content.

**Data assumptions**

Data was excluded from this report when the encounter was not considered a 'rescue'. Here, this refers to all animals with fate reported as 'Advice provided', 'Could not locate for rescue', 'Evaded capture' or 'Resolved by other animal organisation'.

This report includes only native animals. Non-native species, fish and invertebrates were also excluded from analysis.



Artist and designer Nikita Ridgeway from Aboriginal design agency Boss Lady Creative Designs created the People and Community symbol.

**Photos:**

Cover photo: Tawny frogmouth (Shona Lorigan/DCCEEW); Page iii: Crested tern (Penny Beaver); Page iv: Kookaburra (Aditi Sriram/DCCEEW); Page 2: Superb fairy wren (Danielle Dendrinos/DCCEEW); Page 4: Koala (Emma Meadows/WIRES); Page 8: Wombat in care (Mitch Peronis and Melinda Johnstone/WIRES); Page 12: Wombat in care (Mitch Peronis and Melinda Johnstone/WIRES); Page 13: Kangaroos (Aditi Sriram/DCCEEW); Page 14: Wompoo fruit-dove (Jennifer Baker/FAWNA); Page 15: Bush stone-curlews (David Charley); Page 17: White-bellied sea eagle (Jacky Hunt); Page 18: Royal spoonbill (Penny Beaver/ASTR); Page 20: Snake (Aditi Sriram/DCCEEW) Page 21: Eastern bearded dragon (Nick Cubbins/DCCEEW); Page 22: Dr Izi treating a turtle (Lynleigh Greig/Sydney Wildlife); Page 24: Echidna (Aditi Sriram/DCCEEW); Page 25: Grey-headed flying-fox pup in rehab (Shona Lorigan/DCCEEW); Page 26: Wombat mange (Scott Carver/University of Tasmania); Page 28: New Zealand fur seal (Shona Lorigan/DCCEEW); Page: 30: Lace monitor (Danielle Dendrinos/DCCEEW), Barry Furness (FAWNA), Jim Stopford (NSW Wildlife Council); Page 31: Koalas (Tracey Maguire/WIRES); Back cover photo: Pacific Baza release (Meredith Ryan/FAWNA).

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# Preface

Wildlife rehabilitation is the process of assisting injured, sick or orphaned native animals in such a way as to reduce their distress and optimise their chances of returning to their natural habitats. It is a daunting task involving the rescue of tens of thousands of animals each year, mostly by wildlife rehabilitation organisations and their dedicated volunteers. Without their efforts and those of veterinary professionals, many of these animals would not receive humane care or a chance of survival.

In 2022-23, 104,604 animals were rescued. This involved 532 different species, including 117 threatened species. New South Wales is the only state that can accurately report on its wildlife rehabilitation outcomes. This is a credit to the wildlife rehabilitation organisations who ensure their volunteers keep records and report them each year. Keeping accurate records is essential to ensuring the hard work makes a difference to species conservation.

So, thank you to all the wildlife rehabilitation organisations who have submitted their data on time so we can continue to tell government, industry and the community about the important work you all do. Finally, an enormous thank you to all the wildlife volunteers and veterinary professionals, members of the public, non-government groups and response agencies, and donors here and abroad, who contributed to fundraising for wildlife.

We invite you to read this NSW wildlife rehabilitation annual report for 2022–23.

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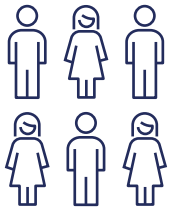
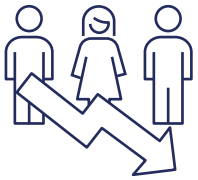
# NSW wildlife rehabilitation sector 2022–23 snapshot

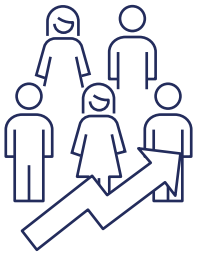
## People power



**7,778**
volunteers



**10%**
decrease from the previous year



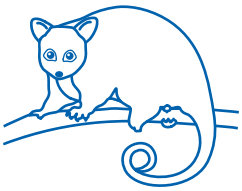
**6,067**
Central Coast LGA recorded highest number of rescues for 2022–23

## Wildlife rescues

**104,604**
native animals across
**532**
species rescued

**18%**
decrease in rescues from the previous year

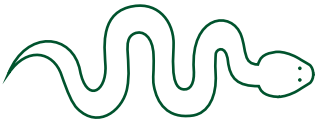
**3,422**
threatened animals rescued



**7,449**
common ringtail possums were the most rescued species

## A second chance

**25,001** (24%)
native animals released back to the wild



**34%**
of rescued reptiles and amphibians released back into the wild

**990**
threatened animals released back into the wild (29% of rescues)

# Introduction

This annual report is the collective story of the NSW wildlife rehabilitation sector. It is the sixth to be compiled by NSW National Parks and Wildlife Service (NPWS) as part of the Department of Climate Change, Energy, the Environment and Water. It communicates the significant efforts of volunteers in the sector and reports on trends in the rescue and rehabilitation of sick and injured wildlife.

In 2022–23 there were 7,778 volunteers who supported or were otherwise directly involved in wildlife rehabilitation in New South Wales. These volunteers are dispersed across the state. Most of these volunteers belong to a wildlife rehabilitation group. They are augmented by a small number of independent individuals and other organisations such as zoos and wildlife hospitals.

All wildlife rehabilitation providers collect data about the diversity and volume of rescued animals coming into care including threatened species. The data contains useful information on the type of animal, the date and location of rescue, its sex, age, physical condition, reason for rescue and fate.

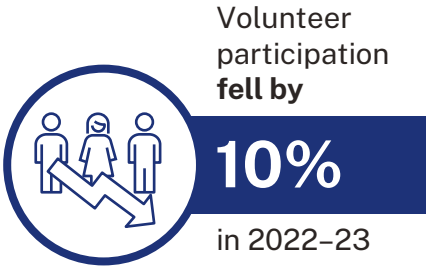
The data, collected over the financial year, is provided to NPWS for collation in September each year. Where possible these records are then uploaded to NSW BioNet (NSW Government repository for wildlife data) and SEED (NSW Government Central Resource for Sharing and Enabling Environmental Data) to be used by species conservation officers, researchers and biodiversity assessors.

Apart from these annual reports, the NSW wildlife rehabilitation data dashboard shows what this sector does and what is happening to wildlife in New South Wales over multiple years. It is an interactive tool which allows you to explore wildlife rescue trends for species and location and investigate outcomes for rescued wildlife. It provides a rich resource from which evidence-based analyses can be made, whether that is looking across the state or in your very own patch.

This report gives an insight into the work of the wildlife rehabilitation sector. It provides a snapshot of key outcomes for 2022–23 in terms of volunteer numbers and animal rescues (see Appendix B for data assumptions and what constitutes a ‘rescue’). We focus on outcomes for native birds, reptiles and amphibians and mammals (terrestrial). Marine mammal rescues are treated separately and are not included within the larger data calculations throughout the report. We provide case studies to highlight the work of individual volunteers, activities and species of interest. We also look at trends across reporting years to get a sense of what has changed.

The data presented has limitations. Data quality is being continually improved and may be subject to change. NPWS has collated the various data sets and made every effort to improve consistency without compromising the accuracy of the results.

# People in the sector




Volunteers are essential to wildlife rehabilitation. They are first responders to native animal emergencies, often working in challenging and confronting circumstances and bearing significant personal costs and stress. We could not do this work without their ongoing commitment and help.

This section reports on the number of volunteers in the sector calculated from membership lists provided by each wildlife rehabilitation group and includes independent licence holders.

In 2022–23 there were 7,778 wildlife rehabilitators in the sector. Eleven groups reported an increase in membership, 11 a decrease, and 2 had no change. Overall, volunteer numbers decreased by 10% on the previous year. It is the first time volunteer numbers have decreased in the past 5 years (Figure 1).

WIRES (Wildlife Information, Rescue and Education Service Inc) remains the largest group in New South Wales with 3,520 members reported (about 45% of the sector).

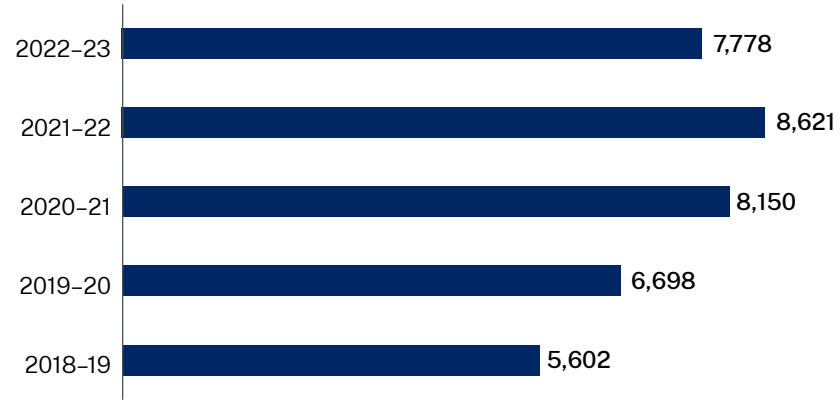



**Figure 1** Number of reported wildlife rehabilitation volunteers over 5 years to 2022–23

Wildlife rehabilitation groups and their volunteers are spread across most of New South Wales. Tweed Valley Wildlife Carers Inc (TVWC) is our northernmost wildlife rehabilitation group based in the Northern Rivers region of New South Wales (Figure 2). In this report, Jenny Graham and Bruce Wotherspoon, both TVWC members, share their stories.

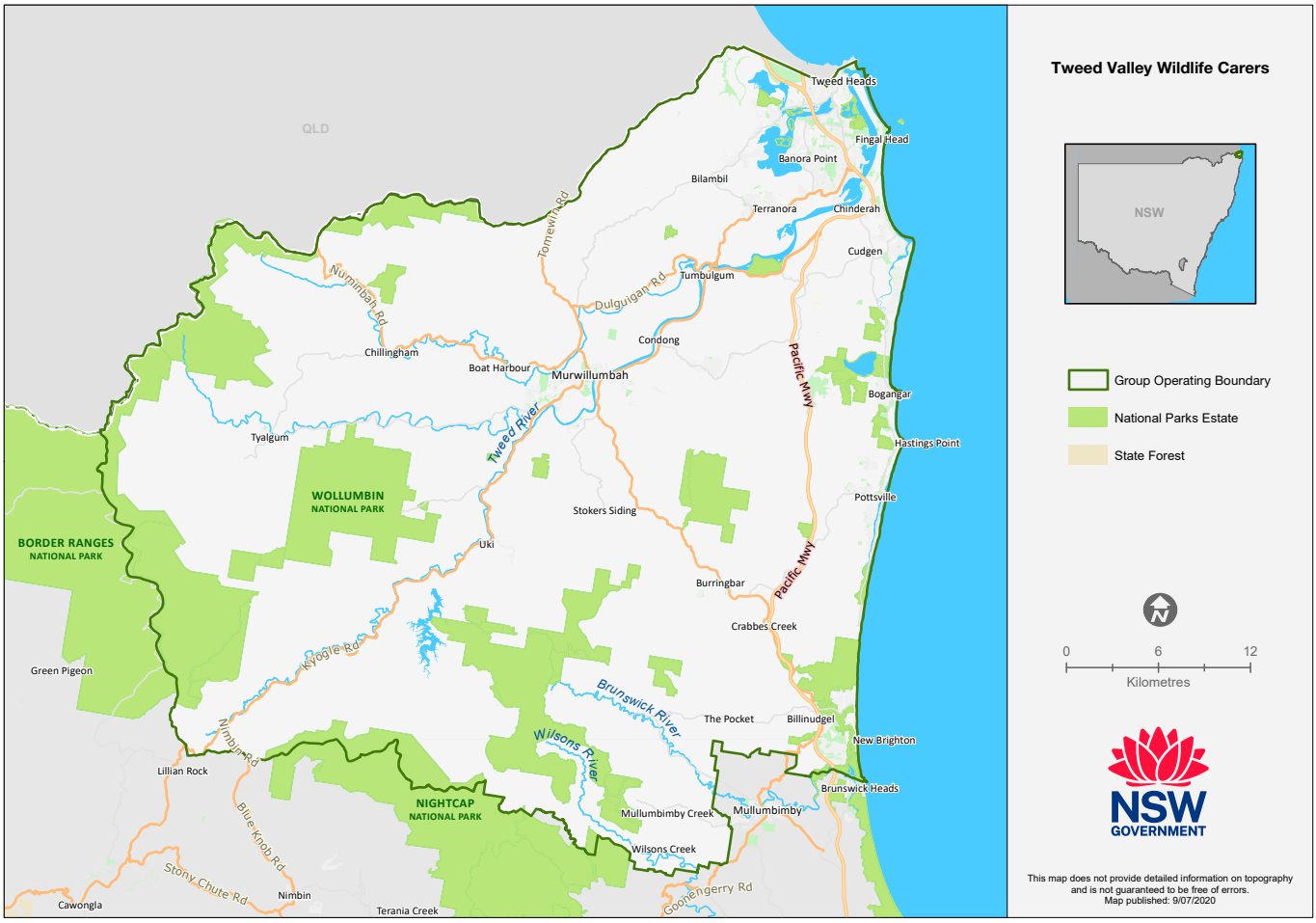



**Figure 2** The geographic area serviced by Tweed Valley Wildlife Carers Inc

## **Volunteer spotlight:** Jenny Graham

Story by Jenny Graham, Tweed Valley Wildlife Carers

The Tweed Shire is one of the most biodiverse areas in Australia. Jenny joined TVWC in 2004, rescuing koalas, platypus, wallabies, possums, bandicoots, echidnas, reptiles, flying foxes and birds. Over the years, she has raised over 20 koalas. She is currently the koala area officer for the Tweed Shire and is also the macropod coordinator.

Jenny grew up in Evans Head, New South Wales. Her father was an ambulance station officer who looked after wildlife as well as people. Jenny remembers her father always stopping for injured animals on the roads and being very vocal when anyone wanted to cut down trees. 'There was so much wildlife around then, I still remember koalas living in the tree behind the ambulance station,' Jenny recollects.

Jenny's wildlife rehabilitation journey started about 24 years ago when a postman reported an injured bird in Jenny's paddock. She rescued it and took it to the local wildlife rehabilitation group. Audrey Koosmen, now president of the NSW Wildlife Council, was there at the time and she was a great source of knowledge and training for Jenny and other new recruits. Enid Latham, a zookeeper in Dubbo, was also a great source of information.

'Wildlife caring has always been at the centre of our family life,' Jenny says. Her husband Terry has built all the amazing aviaries and enclosures on their property, and her daughter is a veterinary nurse at Currumbin Wildlife Hospital. Jenny's son is a helicopter rescuer in the Rural Fire Service (RFS).

Jenny is very proud of their 20-acre property, which they regenerated from an old golf course. 'We bought it for the wildlife,' Jenny says. It includes a large spring-fed dam with the occasional platypus, a koala plantation, and it backs on to Wollumbin National Park. Oxley River is across the road, where the white-bellied sea-eagles build their nests. Jenny says, 'Our house is still a work in progress, but most of our 20 acres is under a wildlife covenant, and I am extremely proud of this accomplishment.'

## **Volunteer spotlight:** Bruce Wotherspoon

Story by Bruce Wotherspoon, Tweed Valley Wildlife Carers

Bruce joined TVWC in 2018, after retiring from his job in Sydney and moving up to Tweed Shire. He spent his working career in the corporate world of Sydney, as a quality controller in a technical role.

Bruce said, 'I got involved in bird rescue and rehabilitation working with my wife as a team.' During the nesting season, Bruce quickly learned the ins and outs of reuniting chicks with parent birds, which can be an extremely difficult task. Bruce began to help rehabilitate many chicks and birds, from kookaburras to noisy miners and tawny frogmouths to pardalotes. He then branched out to rehabilitating reptiles, especially sea snakes. Bruce says, 'Sea snakes are washed up on the local beaches after storms and need immediate rescue and are then transported to Currumbin Wildlife Hospital.'

Pythons are his personal favourite, as are the local water dragons which are in abundance in the Tweed area. 'One of my best experiences was rescuing a python found curled up in a basket in the playground of a local primary school and being able to share my respect for them with the school children,' Bruce recollects. Another memorable rescue was a python found in a wheelie bin which, after being relocated nearby, turned up on Bruce's deck 2 days later.

Arriving up here in retirement, Bruce says he was 'gobsmacked by the diversity of wildlife in the local area, especially the bird life'. There were raptors circling, flocks of lorikeets in abundance and magpies everywhere. Bruce began riding his pushbike around the local area and quickly became aware of the existence of the local endangered bush stone-curlews, as well as their 'cousins', the critically endangered beach stone-curlews. Having seen one of these critically endangered birds on a local riverbank, and finding there were only 6 breeding couples in New South Wales, he decided it was time to get serious and do something to help save wildlife.

'Reuniting bush stone-curlews with their parents has been memorable as well,' Bruce says. He recollects one particular rescue, where the chick that ran to its parent only to have the parent fly away. Luckily Bruce was able to find the parent again in the next block, and the chick was reunited safely.

The main challenge, Bruce says, is learning to deal with new experiences and embracing change. Bruce has recently taken on the position of secretary for TVWC and he finds balancing the politics of wildlife rehabilitation with the dynamics of rescuing and caring for animals to be particularly interesting.

# Annual trends over 5 years

**611,194**

**native animals rescued** in the 5-year period to 2022–23

Before focusing on 2022–23, this section of the report investigates annual trends in wildlife rehabilitation data over the past 5 years. This enables us to compare results between years and see what is changing over time.

## Number of rescues

There were 611,194 native animals rescued over the 5-year period from 2018–19 to 2022–23, with an annual average of 122,239. There was, once again, a decline in total rescues this year compared to last. Birds have consistently been the most frequently rescued animal class every reporting year, and account for more than half (53%) of all animal rescues (Figure 3). A relatively small number of unidentified animals are rescued each year too (1.5% of all reported rescues).

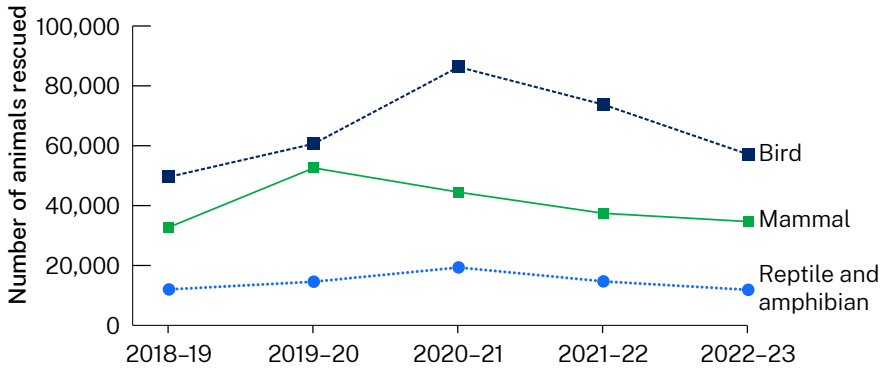



**Figure 3** Number of rescues over the 5-year period 2018–19 to 2022–23 by class of animal

Rainbow lorikeets have consistently been the most frequently rescued species over the past 5 years, accounting for 8% of all rescues. However, for the first time in 5 years, their rescue numbers declined. A total of 7,085 rainbow lorikeets were rescued in 2022–23, a 39% decline from the previous year (Figure 4).

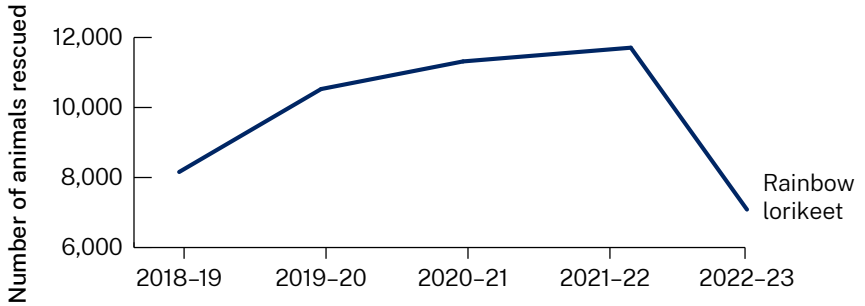



**Figure 4** Rainbow lorikeets rescued over the 5-year period 2018–19 to 2022–23

## Reasons for rescue

It can be difficult to determine the reason why an animal needs rescuing. The danger may have passed by the time rescuers arrive and the cause of injury or illness may not be obvious. Consequently, more than half of all rescues are allocated an 'unknown' rescue reason every year.

In the past 5 years, motor vehicle collisions accounted for 25% of all rescues, and the number of rescues reported from vehicle collisions increased every year (Figure 5). Other types of collision (e.g. colliding into a building) are also common. When combined, 'collisions' account for 30% of all rescues with a known cause. The other most common reasons for rescue are 'unsuitable environment', 'abandoned/orphaned' and 'dependent on parent taken into care'. These 5 most common reasons account for 59% of all rescues where the cause is known (Figure 5).

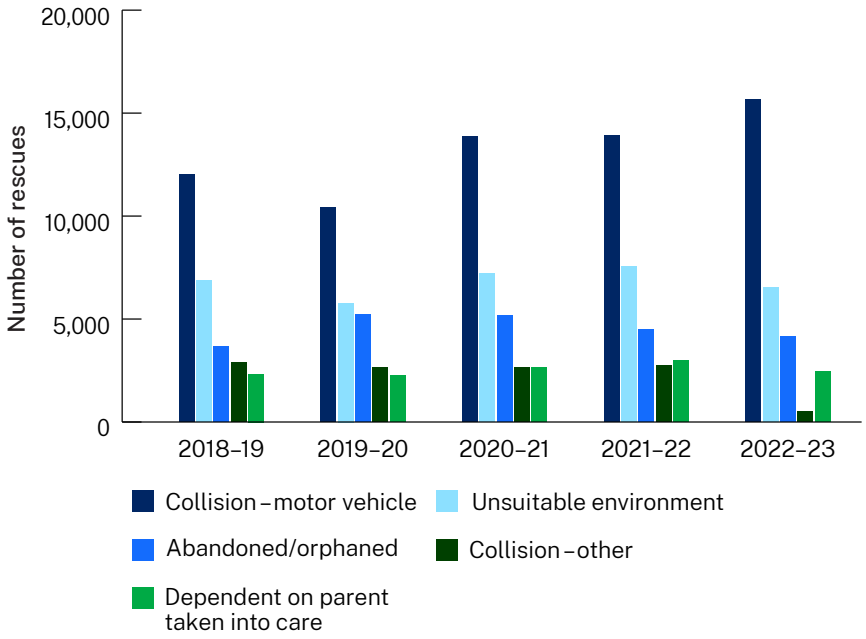



**Figure 5** Most frequent reasons for rescue over the 5-year period 2018–19 to 2022–23

**136,785**

**rescued animals** released over past 5 years

## Fate of rescued animals

In the past 5 years, 136,785 rescued native animals were released (including animals that were relocated or reunited with their parents), which represents 22% of total rescues (Figure 6). Each year an average of 52,814 reported animals die before rescuers arrive, die in care, or require euthanasia due to their injuries or illness. Rescues with a fate reported as 'other' represent animals that are left in the wild and observed (never captured), animals being transferred to vets, or animals that are still in the care of a wildlife rehabilitation group.

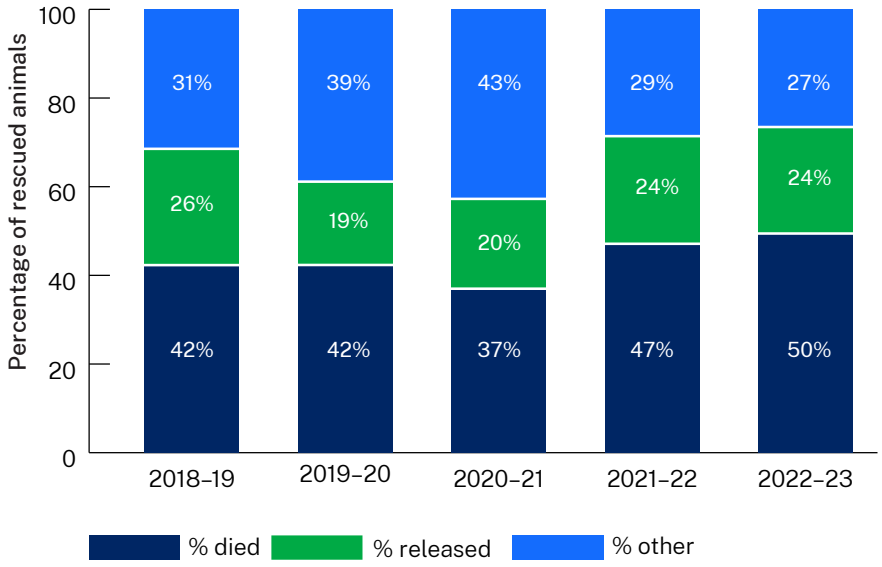



**Figure 6** Comparison of fate of animals over the 5-year period 2018–19 to 2022–23

# The year in focus 2022–23

**104,604**

**native animals** of

**532**

**species** were rescued in 2022–23

In 2022–23, a total of 104,604 native animals were rescued across New South Wales. This is 18% fewer than the previous reporting year, and the second year in a row that rescue numbers have declined.

## Top 10 species rescued

The 10 most-rescued species in 2022–23 are shown in Figure 7. The top 10 species have remained the same as last year, however, this year common ringtail possums were the most-rescued species with 7,449 animals rescued (8% of all rescues). Rescue numbers across the top 10 decreased this year, with rainbow lorikeets recording the largest decline (39%).

Rescued adult animals (33%) were slightly higher this year when compared to young animals (29%). Eggs accounted for less than 1% of all rescues, with the majority of eggs recorded as reptile eggs (67%).

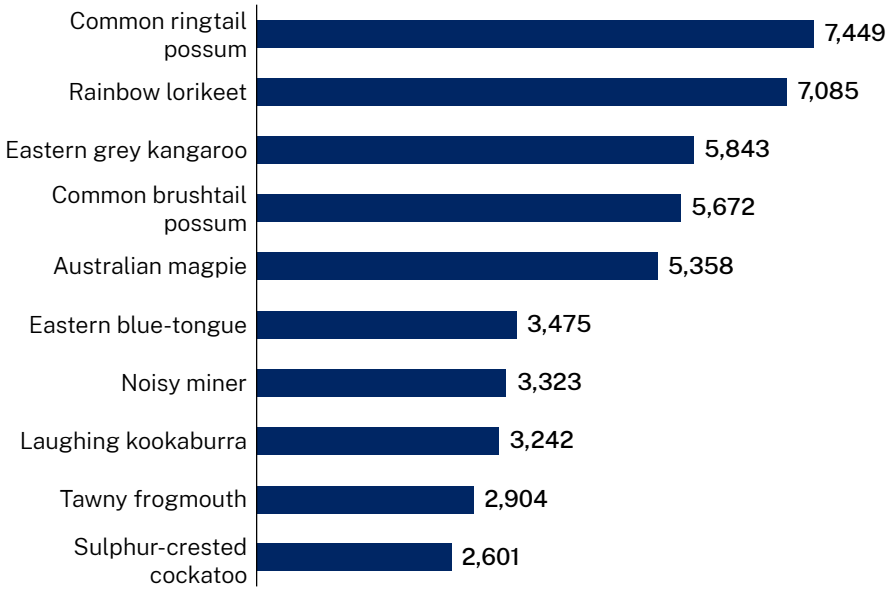



**Figure 7** Top 10 most-rescued species in 2022–23

Spring and summer remained the busiest seasons for wildlife rescues, with 34% of rescues in spring and 29% in summer. Unlike 2019–20, where there was a spike in rescues correlating with the severe bushfires, the seasonal trends for rescues this year are more comparable with previous years (Figure 8).

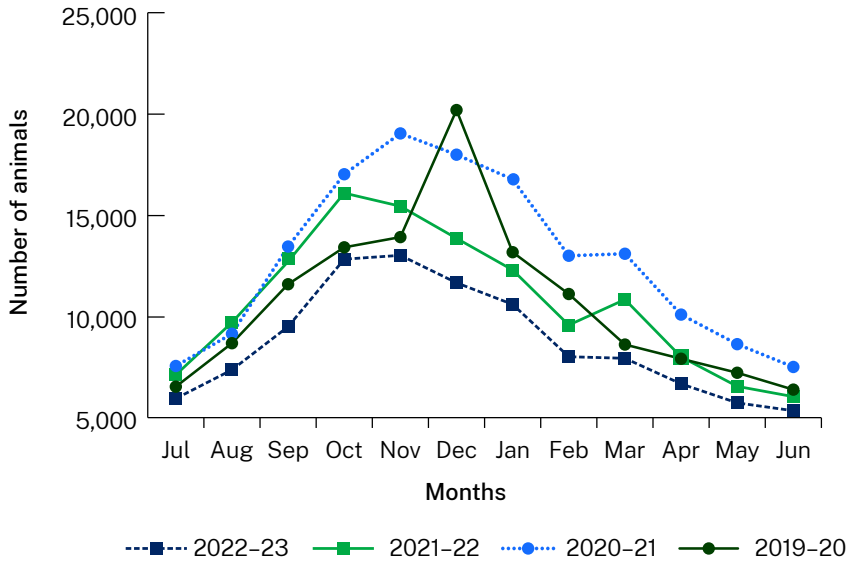



**Figure 8** Rescues reported each month in 2019–20, 2020–21, 2021–22 and 2022–23

## Why is wildlife coming into care?

At the time of rescue, it can be difficult or impossible to determine why an animal is ill or injured. Consequently, most rescues are reported with their cause 'unknown'. In 2022–23, this was 49% of rescues, down from 58% the previous year and 65% the year before.

Of the rescues with a known cause, motor vehicle collision consistently accounts for the highest number, with an increasing trend each year (Figure 9). This year vehicle strike was responsible for 15,639 rescues, which is 29% of all rescues with a known cause. The top 4 reasons for rescue have remained the same as 2021–22.

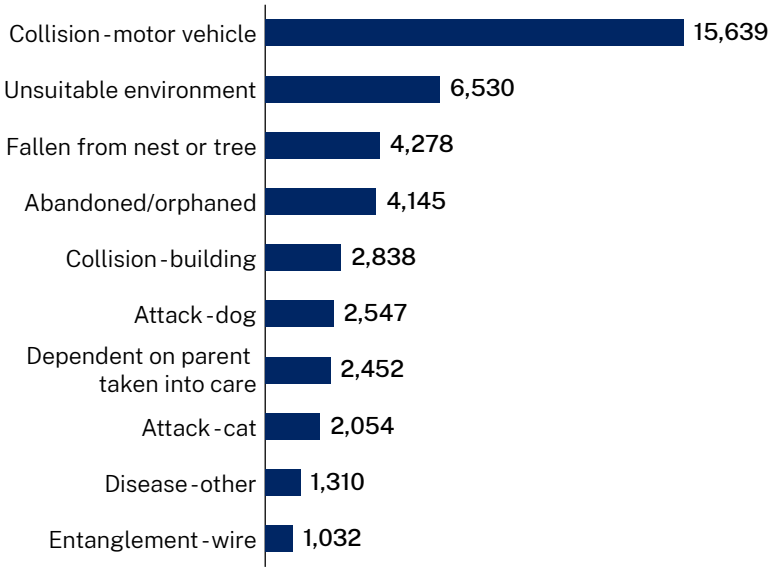



**Figure 9** Most common reasons for rescue in 2022–23, excluding 'unknown'

## Collisions with cars

Rescues resulting from car strikes have been increasing over the past 4 years (Figure 10). Birds account for the majority of car collision rescues, followed by mammals and a small proportion of reptiles and amphibians. Not unexpectedly, the majority of car collisions result in the death of the animal. Rescuers attending to motor vehicle accident rescues in 2022–23 found 23% of animals had died before their arrival, 39% had to be euthanased due to the severity of injuries, and 13% died in care.

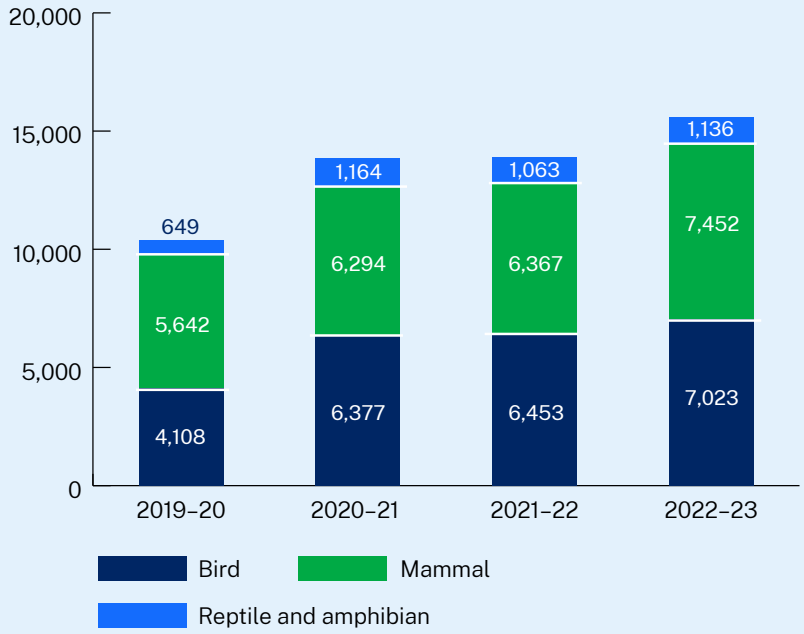



**Figure 10** Bird, mammal, and reptile and amphibian rescues due to motor vehicle collisions over the past 4 years

## Fate of rescued animals

Native wildlife requiring rescue are commonly found in a compromised state, limiting their chances of survival. Consequently, many cannot be returned to the wild. This year, 25,001 animals were released, relocated or reunited with their parents. This represents a successful release rate of 24%, which is similar to the previous year. Mammal, reptile and amphibian release rates decreased slightly compated to last year, while bird release rates remained the same (Figure 11).

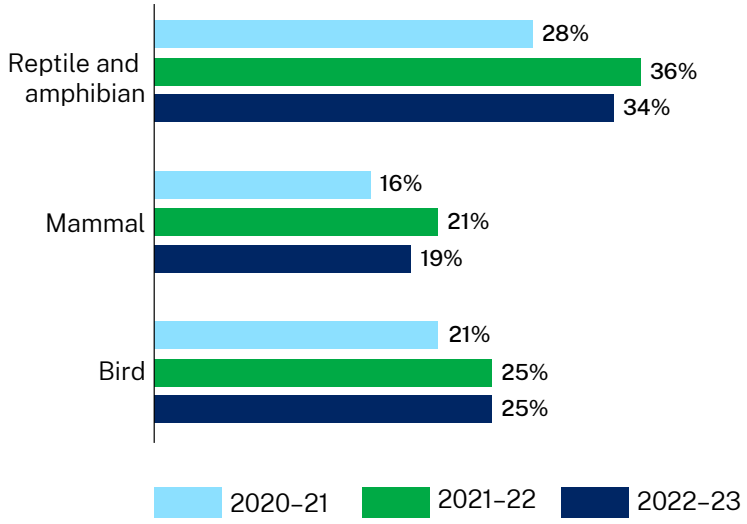



**Figure 11** Percentage of animals released, relocated or reunited with parents in 2020–21, 2021–22 and 2022–23

**3,422**

**threatened animals** were rescued

## Threatened species

The 2022–23 reporting year saw 3,422 threatened animals rescued, a 7% decline from the previous year. Although fewer threatened animals were rescued this year, more species were represented (117), compared to 2021–22 (109). Grey-headed flying-foxes were the most-rescued threatened species once again, with a 15% increase in rescues compared to last year. Koala rescues declined by 3% this year and bush stone-curlew rescues increased by 45%.

The semi-nomadic, multicoloured wompoo fruit-dove is listed in the top 5 most-rescued threatened species for the first time this year. The 5 most-rescued threatened species account for 82% of all threatened species rescues. The release rate for the top 5 threatened species was 28%, which is 4% higher than for non-threatened species.

**Table 1** Top 5 threatened species rescued in 2022–23

| Top 5 rescued threatened species | Number rescued in 2022–23 |
|---|---|
| Grey-headed flying-fox | 1,399 |
| Koala | 1,043 |
| Green turtle | 156 |
| Bush stone-curlew | 139 |
| Wompoo fruit-dove | 66 |

## Bush stone-curlews – a conservation success story

The bush stone-curlew, also known as bush thick-knee, is a primarily nocturnal ground-dwelling bird. They are ground-nesting birds and are commonly reported in urban areas nesting in public parks or private properties. Habitat disturbance and predation are key threats to the bush stone-curlew population on the Tweed Coast.

Tweed Shire Council has been actively managing the bush stone-curlew population since 2012. It was awarded a NSW Environmental Trust grant to continue work on managing predation and improving habitat for bush stone-curlews and glossy black-cockatoos.

Tweed Valley Wildlife Carers have been working together with Tweed Shire Council to protect nesting bush stone-curlews, and to help them raise their chicks through to adulthood. TVWC volunteers support the project by providing care for sick and injured birds and rearing orphaned chicks. Volunteers also play an important role in community education and in monitoring and reporting bird sightings.

Bush stone-curlew populations have increased in the Tweed from 2 known breeding pairs in 1988 to approximately 47 breeding pairs recorded in the 2022–23 breeding season. You can read more about this successful project on the 'Conserving cockatoos and curlews' webpage on the Tweed Shire Council website.

# Birds

**57,194**

**bird rescues**

This year, 57,194 birds were rescued, which is 23% fewer than the previous year. Despite fewer bird rescues overall, the species diversity was higher than ever. There were 407 different avian species rescued, including 66 threatened species. The wildlife rehabilitation sector also provided advice to the community about 2,505 birds, which is a 60% decline compared to last year.

Rainbow lorikeets were the most rescued bird in 2022–23. They were rescued 7,085 times and accounted for 12% of all bird rescues in New South Wales, which is a 4% decline compared to the previous year. All species in the top 10 declined in rescue number this year, compared to 2021–22. Australian white ibis returned to the top 10 after having dropped down the list for the past 2 years. The other top 10 most-rescued birds are shown in Figure 12.

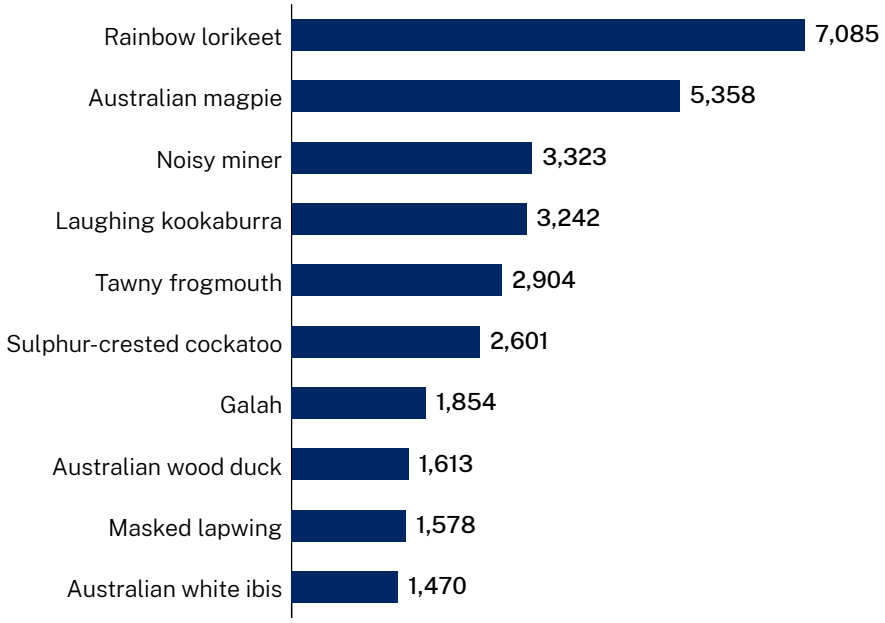



**Figure 12** Top 10 bird species rescued in 2022–23

Young animals represented most bird rescues (33%), unlike mammals or reptiles and amphibians where rescues of adults were higher. A sex, either female or male, was not identified in 94% of bird rescues. For the remaining rescues, males and females were equally represented.

Spring and summer are always the busiest seasons for bird rescues, and this year was no different. Spring accounted for 37% of birds rescued and summer for 31%. Winter is consistently the quietest season for bird rescues.

The top 10 reasons for bird rescues are shown in Figure 13. This year, 52% of all bird rescues had an 'unknown' cause, a drop from 60% in the previous year. When the reason was known, collision with a motor vehicle was the most common cause. Laughing kookaburras were the most common bird rescued due to motor vehicle collision (943 birds), followed by rainbow lorikeets (709) and tawny frogmouths (609).

The most common species rescued due to falling from a nest or tree is the noisy miner. Tawny frogmouths topped the list under the unsuitable environment category, representing birds that are found somewhere not typical for that bird or a location that poses a risk to the bird.

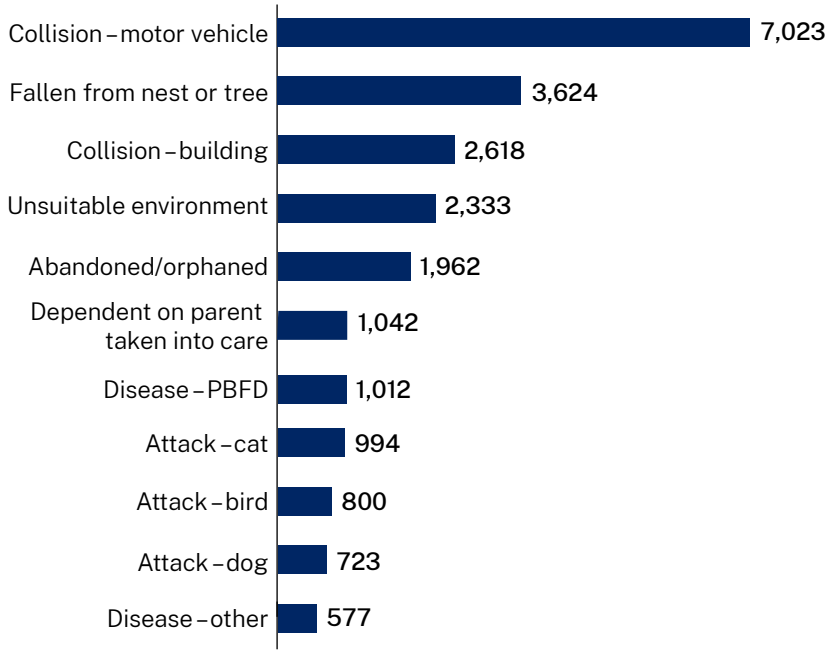



**Figure 13** Top 10 reasons for bird rescues in 2022–23

The release rate for birds was 25% this year, same as the last year. Figure 14 shows the release rates of the most rescued birds in 2022–23. Sulphur-crested cockatoos have a consistently poor release rate and have the lowest release rate when compared to other species in the top 10. Australian wood ducks are the only species to have better release rates (56%) than mortality rates (51%).

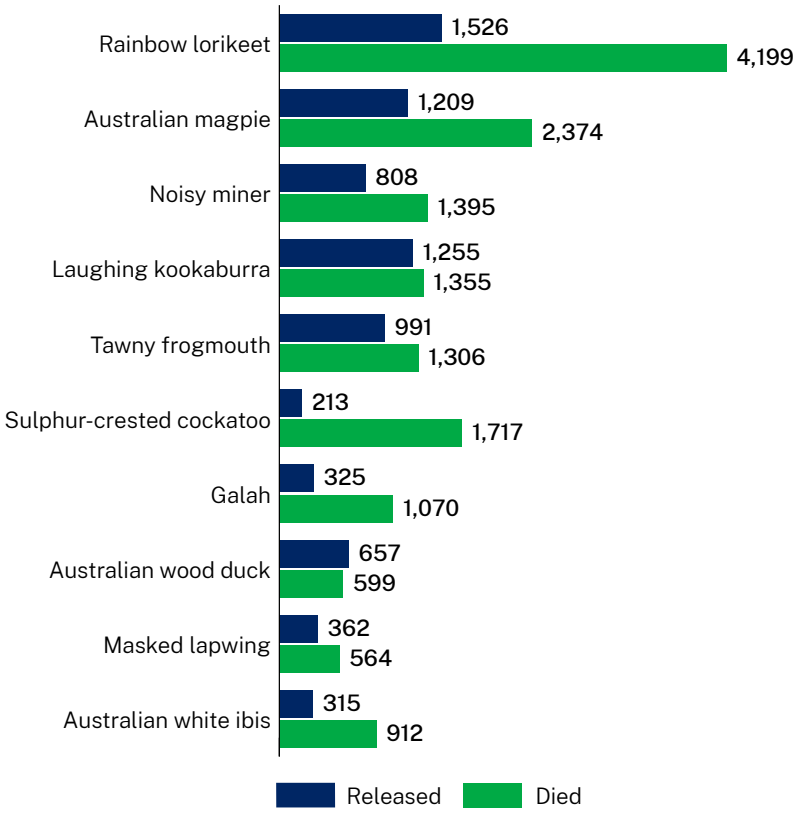



**Figure 14** Fate of commonly rescued birds in 2022–23

# Reptiles and amphibians

**11,868**

**reptile** and **amphibian** rescues

This year 11,868 reptiles and amphibians were rescued, which is 19% fewer animals than in 2020–21. These rescues represented 112 different species, of which 15 are listed as threatened species in New South Wales. Wildlife rehabilitators also provided advice 1,195 times regarding reptiles and amphibians.

The most frequently rescued reptile and amphibian species are shown in Figure 15. Eastern blue-tongue lizards have been the most-rescued reptile or amphibian species for the past 6 years. Diamond pythons and bearded dragons are new to the top 10 this year, with 257 and 244 rescues respectively. The top 7 species saw a decline in total rescue numbers, with the largest decline recorded in eastern brown snakes. The top 10 list includes only species which can be positively identified. In 2022–23, 1,287 unidentified snakes were reported. This is the second highest number of reptile rescues and accounts for 11% of all rescues.

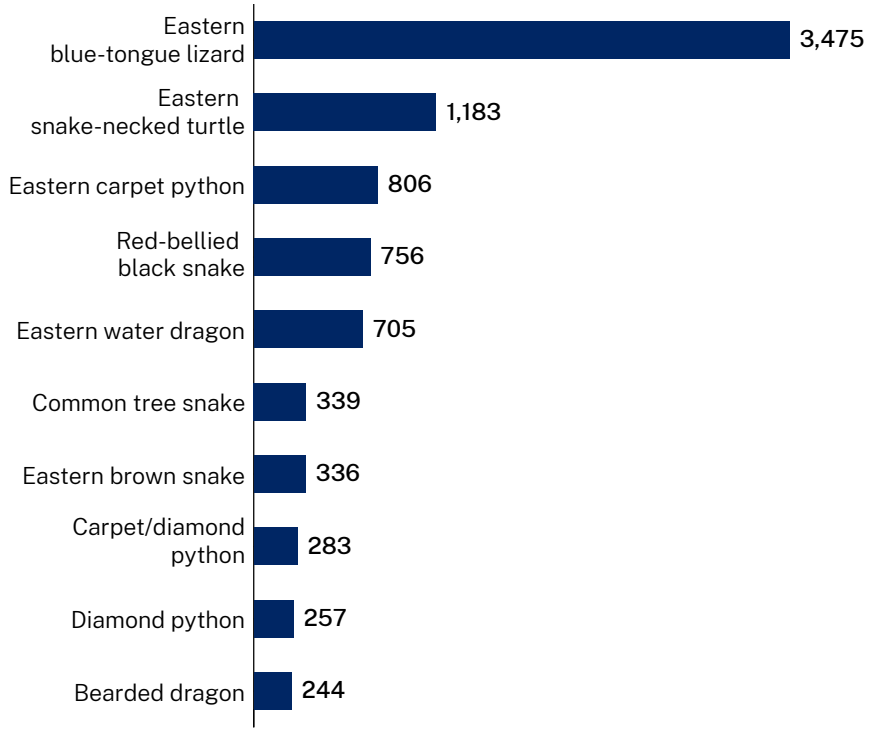



**Figure 15** Top 10 reptile and amphibian species rescued in 2022–23

In July 2024, NPWS intends to publish new standards for reptiles and amphibians. These standards will require volunteers to receive training in reptile identification. This will help tailor rehabilitation plans for reptiles and lead to better animal welfare outcomes for species.

There is a consistent seasonal pattern in reptile and amphibian rescues. Rescue numbers are highest in the warmer months of summer (35%) and spring (36%). This year's peak months were October (1,721) and January (1,613). A significant decline in rescues regularly occurs during winter, with just 10% of reptiles and amphibians rescued in winter this year.

The percentage of rescues with an unknown cause decreased from 59% last year to 50% this year. Figure 16 shows the most common reasons for rescue, when it is known. Being in an unsuitable environment has been the most common reason for reptile and amphibian rescues since 2018–19. This year there were 1,898 unsuitable environment rescues, an increase of 2% on last year. Eastern carpet pythons and red-bellied black snakes were the 2 most commonly rescued species in the unsuitable environment category.

For reptiles and amphibians, motor vehicle collisions and dog attacks have consistently been the second and third most common encounter types over the past 4 years, with a further increase in rescues this year. The most common species impacted by car strike was the eastern snake-necked turtle (33%). Most dog attacks were on eastern blue-tongue lizards (70%), which are commonly seen in suburban backyards.

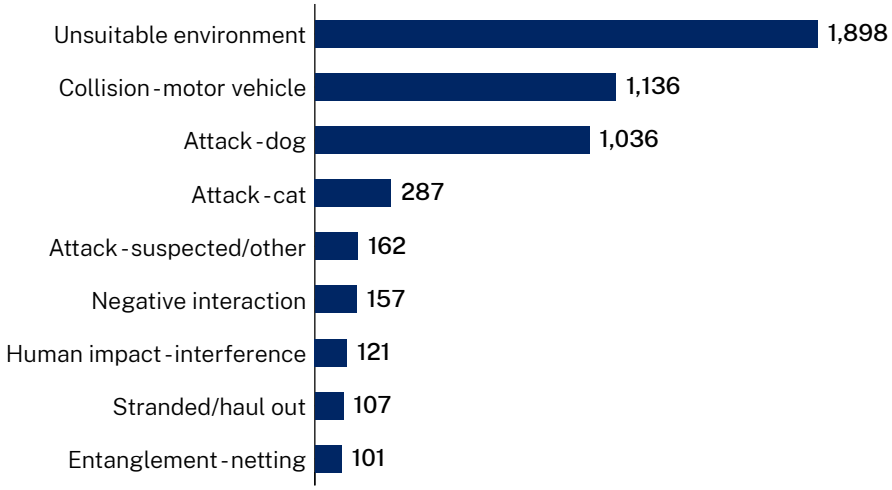



**Figure 16** Top 10 reasons for reptile and amphibian rescues in 2022–23

Reptile and amphibian rescues have a higher release rate than mortality rate, unlike birds and mammals. This year, 34% of rescued reptiles and amphibians were released, which is a 2% decrease on the previous year. Twenty-one per cent of rescued reptiles are also reported as 'left and observed'. This is where an animal is assessed by a rehabilitator and considered not to be in immediate danger and is therefore left in the same condition it was found in. Of the top 10 most-rescued reptiles and amphibians, diamond pythons (57%), eastern snake-necked turtles (56%) and common tree snakes (56%) had the highest release rate (Figure 17). Eastern blue-tongue lizards had the highest mortality rate at 48%.

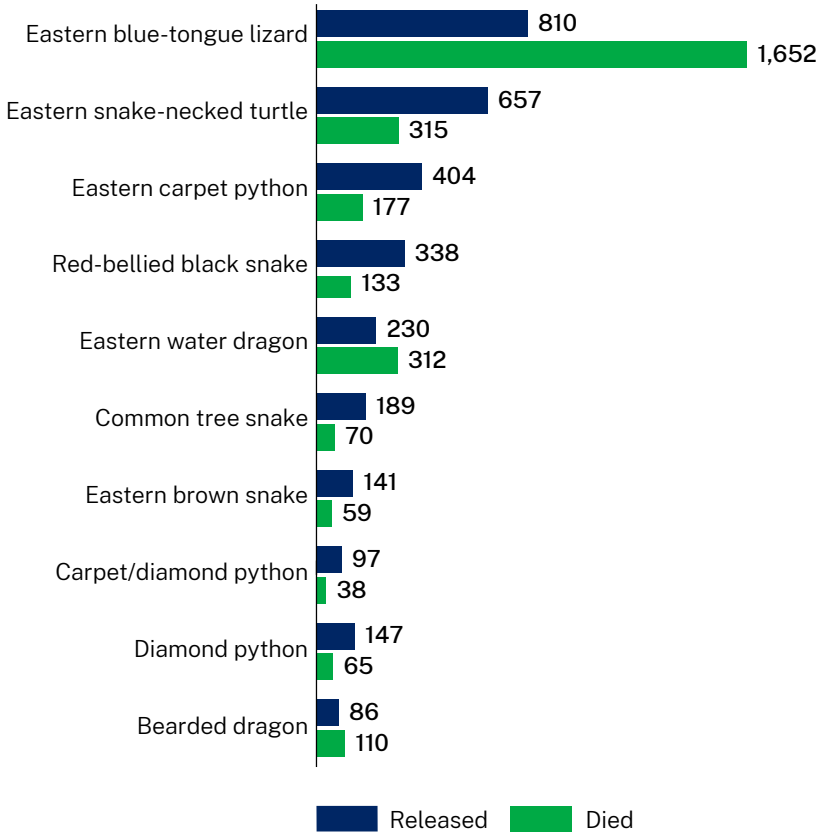



**Figure 17** Fate of commonly rescued reptiles and amphibians in 2022–23

## Turtle shell injuries

Eastern snake-necked turtles (ESNT), also called eastern long-necked turtles, are the most widespread species of freshwater turtle in Australia. They spend the majority of their life in the water, only moving across land to find nesting areas to lay eggs or to find new water holes.

The most common reason ESNT are rescued in New South Wales is due to motor vehicle collisions (32%). The majority of these rescues occur in October (Figure 18), which aligns with the beginning of summer when turtles are on the move looking for nesting sites.

Turtles can suffer significant trauma as a result of motor vehicle accidents. The majority of turtles rescued due to car collisions are euthanased (33%) and a smaller percentage die in care (8%). However, a considerable number (32%) are released. Immediate veterinary attention to assess the extent of injuries and provide pain relief is crucial. Shell repairs can be complex and often require ingenuity. Dr Izidora Sladakovic (Avian and Exotics Service) contributes her expertise and supports Sydney Wildlife Rescue by providing veterinary care for wildlife. She has developed her own techniques to repair shell fractures, using modified veterinary equipment such as syringes.

Earlier in the year, Dr Robert Johnson AM presented a webinar, as part of the NPWS Wildlife Webinar Series, on turtle shell repair. A recording of the webinar can be found on the Wildlife Heroes website.

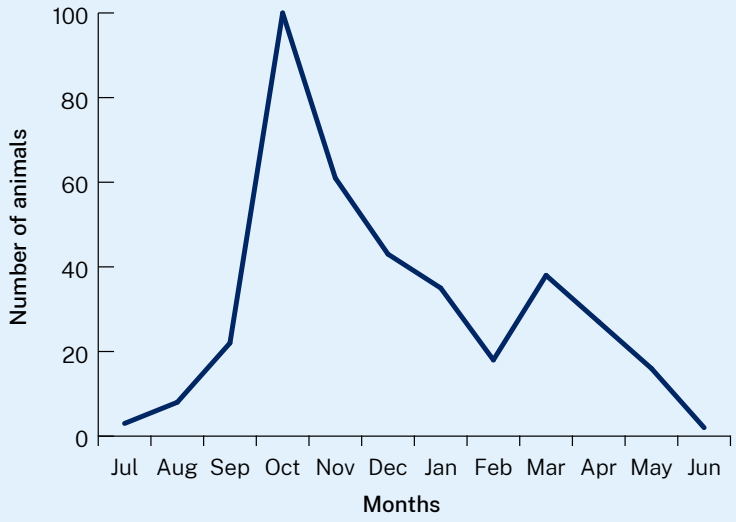



**Figure 18** Eastern snake-necked turtle rescues reported each month in 2022–23

# Mammals

**34,662**
**mammal**
rescues

There has been a consistent decrease in mammal rescues over the past 4 years. Across NSW 34,662 mammals were rescued, which is 7% less than in 2021–22. Rescued mammals represented 84 different species, which includes 34 threatened species. The sector also provided advice regarding a further 1,284 mammals. Most frequently, this advice was about common brushtail possums (307) and common ringtail possums (197).

The top 10 most rescued mammal species are shown in Figure 19. These top 10 species accounted for 81% of all mammals rescued. Bare-nosed wombats, grey-headed flying-foxes, red-necked wallabies and swamp wallabies all recorded an increase in rescues compared to the previous year. Common ringtail possums, although the most commonly rescued species, had the largest decline (16%) in rescue numbers compared to the previous year.

Consistent with previous years, males (28%) and females (25%) are almost equally represented across rescues. Adults (40%) were more frequently rescued than juveniles (31%), when life stage was identified.

This year, mammal rescues were more consistent through the year unlike the previous year where there were significant peaks in autumn and spring. In 2022–23, most rescues were reported in spring (26%), followed by winter (23%), summer (22%) and autumn (21%).

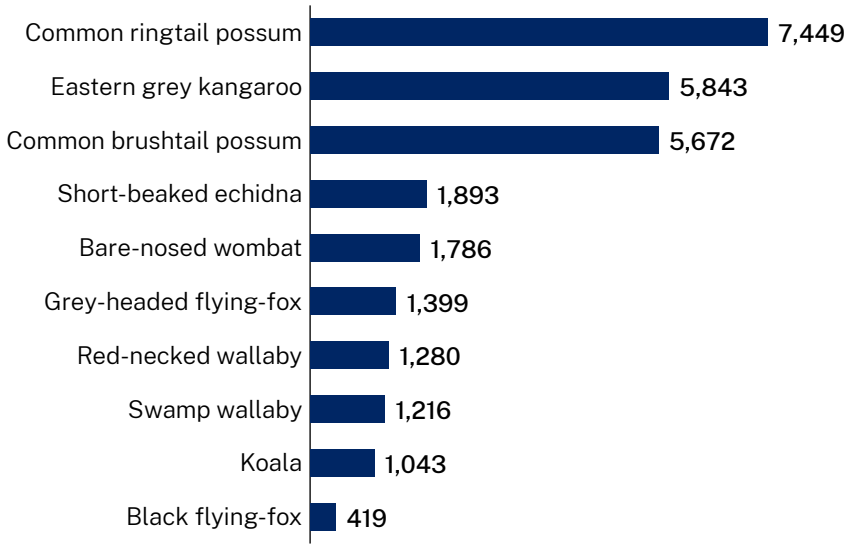



**Figure 19** Top 10 mammal species rescued in 2022–23

Less than half of all mammal rescues did not have a known rescue reason (42%). Of the 20,095 rescues where cause was known, motor vehicle collision was the most common (37%). Eastern grey kangaroos represent 37% of all mammal rescues due to motor vehicle collision. Common brushtail possums recorded the highest number of rescues in the unsuitable environment category. Common ringtail possums topped the charts as the most-rescued species in the abandoned/orphaned, dependent on parent taken into care and dog attack categories. The most common reasons for rescue are shown in Figure 20.

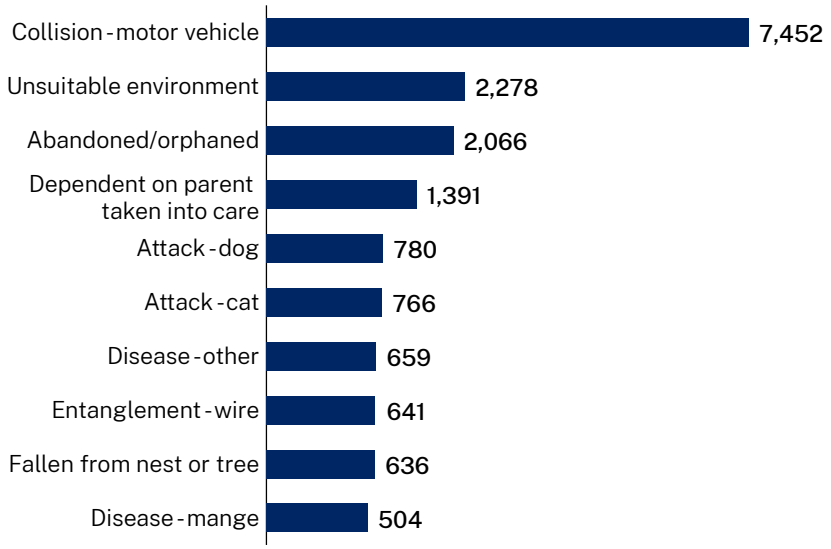



**Figure 20** Top 10 reasons for mammal rescues 2022–23

Of all the mammals rescued this year, 19% were released back to the wild. This is a 2% decrease when compared to the year before. This year, grey-headed flying-foxes had the best release rate (29%), with a 11% increase compared to the previous year (Figure 21). Koalas had the second highest release rate (28%), with a 5% increase on the previous year. Wombats had the lowest release rates at just 6%.

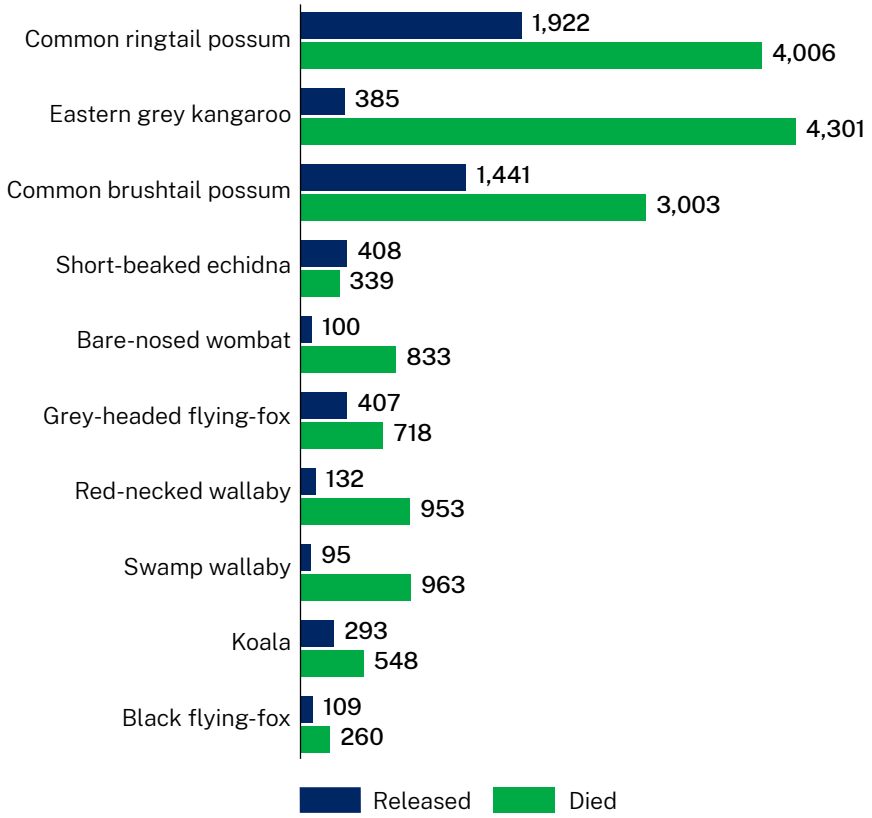



**Figure 21** Fate of commonly rescued mammals in 2022–23

## Curb Wombat Mange Program

Sarcoptic mange in wombats is caused by an infestation of the scabies mite *Sarcoptes scabiei*. Without treatment, mange progresses until the animal is severely compromised, resulting in death with suffering. Mange is present throughout the range of bare-nosed wombats and has significant health and welfare implications for individual animals.

The NSW Government committed $2.8 million over 2 years from 2022 to 2024 to implement a rapid-response delivery program to help curb wombat mange. Funding has mainly comprised:

- community grants to wildlife rehabilitation providers, Aboriginal organisations and other eligible community groups, for in-situ treatment of affected wombats
- research grants for collaborative scientific research to address gaps in our understanding of the prevalence and treatment of mange in New South Wales.

Funding to the wildlife rehabilitation sector has been awarded to 9 organisations to the value of $1.6 million during 2022–23. Applications for further funding will remain open until 31 December 2024.

Funding has been awarded to 4 leading research institutions. The investment in research is vital in informing conservation management practices that will have positive long-term welfare outcomes for wombats in New South Wales. Project summaries, including details on the lead institution and amount awarded, are available on the *Curb Wombat Mange Program* page on the Environment and Heritage website.

As part of the program, a series of videos has been developed in conjunction with Dr Scott Carver from the University of Tasmania. The videos demonstrate practical techniques on how to correctly apply treatments using standards outlined in the *Code of practice for injured, sick and orphaned wombats* (Department of Planning and Environment 2022). The videos are available under the 'Wombats' tab on the department's *Our standards of care* webpage.

# Marine mammals

**253**

**marine mammal incidents** in 2022-23

In 2022–23 there were 253 marine mammal incidents reported, involving 12 cetacean species and 4 seal species.

There was a decrease (20%) in the number of cetacean species reported this year compared to last. Humpback whales and Indo-Pacific bottlenose dolphins were the most frequently reported species accounting for 61% of all cetacean incidents (Figure 22).

Reports of carcasses were the most frequent 'event type' for cetaceans this year (43%), increasing by 15% from the previous year. Most carcasses (80%) were small oceanic dolphin species including the Indo-Pacific bottlenose dolphin (33%), common dolphin (20%), striped dolphins (7%), pantropical spotted dolphins (7%) and common bottlenose dolphins (10%).

Entanglements of live cetaceans accounted for 33% of reports and overwhelmingly these were for humpback whales (83%) reported during the humpback migration from May through to October. Varying from the normal migratory behaviours, 2 entangled humpback whales were also reported in January 2023 with one being successfully disentangled. Large whale disentanglement is undertaken by specially trained NPWS staff members. Organisation for the Rescue and Research of Cetaceans in Australia (ORRCA) plays an important role assisting with shore-based monitoring of entangled whales. This includes placing volunteers on headlands to detect and observe whale behaviour, gaining drone footage and predicting swim speed and travel direction to assist NPWS with managing these complex operations.

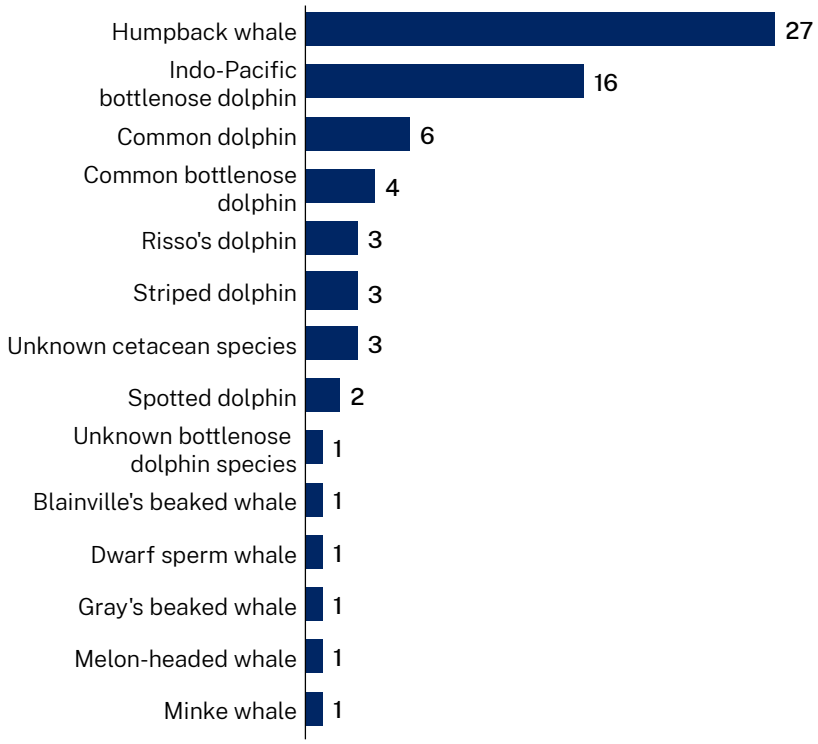



**Figure 22** Cetacean events by species 2022–23

There were 183 seal incidents reported in 2022–23 involving 4 species; this is a 20% decrease on the previous year. They included New Zealand fur seals (66% of reports) and Australian fur seals which are listed as threatened in New South Wales. Leopard seals, subantarctic fur seals (listed nationally as endangered) and another 31 unknown seal species were also reported by responding organisations.

'Seal haul-out' is the most common reason seals are reported to NPWS; they accounted for 151 seal reports this year. Some of these reports are of the same seal that hauls out in different locations over an extended time. An assessment of the unique spot pattern on leopard seals identified 7 seals from 15 different events including one seal that hauled out in 8 different locations from Tomakin through to Coffs Harbour.

## Guidelines to evaluate hauled out seals

Wildlife rehabilitators play an important role in monitoring and evaluating the health of hauled out seals. Guidelines for evaluating hauled out seals have been published to assist wildlife rehabilitators undertake an evaluation. The new resource provides information on evaluating both the animal's physical condition and observed behaviours as well as a list of required photographs. A detailed evaluation provides NPWS, and the marine mammal veterinarians advising them, with the best information to determine whether intervention is required, and if so, the best way to intervene to minimise an animal's stress. Over time, seal evaluations will also start to fill in knowledge gaps on the threats facing fur seal populations in New South Wales.

*Guidelines for evaluating hauled out seals* (DPE 2022) can be found on the Environment and Heritage website.

# Appendix: Data providers 2022–23

NPWS is grateful to the following organisations (groups) and independent licence holders who provided their records for 2022–23:

| Wildlife rehabilitation organisations including facilities |
|---|
| Australian Seabird and Turtle Rescue (ASTR) |
| Dolphin Marine Conservation Park (now Coffs Coast Wildlife Sanctuary) |
| For Australian Wildlife Needing Aid (FAWNA) |
| Friends of the Koala (FoK) |
| Geoffrey Pearce Correctional Centre |
| Hunter Wildlife Rescue (HWR) / Native Animal Trust Fund (NATF) |
| Koala Conservation Australia |
| Koalas In Care |
| Looking After Our Kosciuszko Orphans (LAOKO) |
| Native Animal Rescue Group (NARG) |
| Native Animal Trust Fund (NATF) |
| Northern Rivers Wildlife Carers (NRWC) |
| Northern Tablelands Wildlife Carers (NTWC) |
| Organisation for the Rescue and Research of Cetaceans in Australia (ORRCA) |
| Port Stephens Koala and Wildlife Preservation Society |
| Raptor Recovery Australia |
| Rescue and Rehabilitation of Australian Native Animals (RRANA) |
| Saving Our Native Animals (SONA) |
| Sunraysia Wildlife Carers Group |
| Sydney Wildlife Rescue |
| Taronga Conservation Society |
| Tweed Valley Wildlife Carers (TVWC) |
| Warrumbungle Wildlife Rescue and Rehabilitation (WWRR) |
| Wildlife ARC |
| Wildlife Carers Network Central West (WCNCW) |
| Wildlife in Need of Care (WINC) |
| Wildlife Information, Rescue and Education Service (WIRES)* |
| Wildlife Rescue South Coast (WRSC) |
| Zambi Native Wildlife Sanctuary Co-operative (now Hills Wildlife Sanctuary) |

| Independent licence holders |
|---|
| S Brookhouse |
| D Johnston |
| K Holdsworth |
| P Hughes |
| R Molony |

*WIRES contributed approximately 70% of the wildlife rescue data for 2022–23.

# Acknowledgements

NPWS, as part of the NSW Department of Climate Change, Energy, the Environment and Water thanks the wildlife rehabilitation sector for all the important work they do rehabilitating sick and injured wildlife. We are grateful to Jenny Graham and Bruce Wotherspoon for sharing their personal stories. We look forward to sharing many more stories on the work of other volunteers in the future.

## Memorial

### Barry Furness

Long-term raptor rehabilitator with FAWNA

### Jim Stopford

WIRES member, founding member of the Hawkesbury Herpetological Society, a pioneer of reptile rehabilitation training

### Laurie Williams

FAWNA member since 1999

# Find out more

If you would like to learn about becoming a wildlife rehabilitation volunteer and want to contact your local wildlife rehabilitation organisation, see How to get involved in wildlife rehabilitation or use the IFAW app.

To learn more about Australia's unique wildlife, and things you can do to live in harmony with wildlife, go to the Foundation for National Parks and Wildlife Backyard Buddies website.

NPWS has published several new codes of practice and other wildlife rehabilitation resources. They can be found on the Environment and Heritage standards of care webpage.

## Further information

Code of practice for injured, sick and orphaned wombats

Curb Wombat Mange Program

Rehabilitating native animals – Our standards of care

Practical techniques in wombat rehabilitation videos

Guidelines for evaluating hauled out seals

NSW BioNet

NSW wildlife rehabilitation data dashboard

NSW Government Central Resource for Sharing and Enabling Environmental Data (SEED)

Tweed Shire Council – Conserving cockatoos and curlews

Wildlife Heroes website