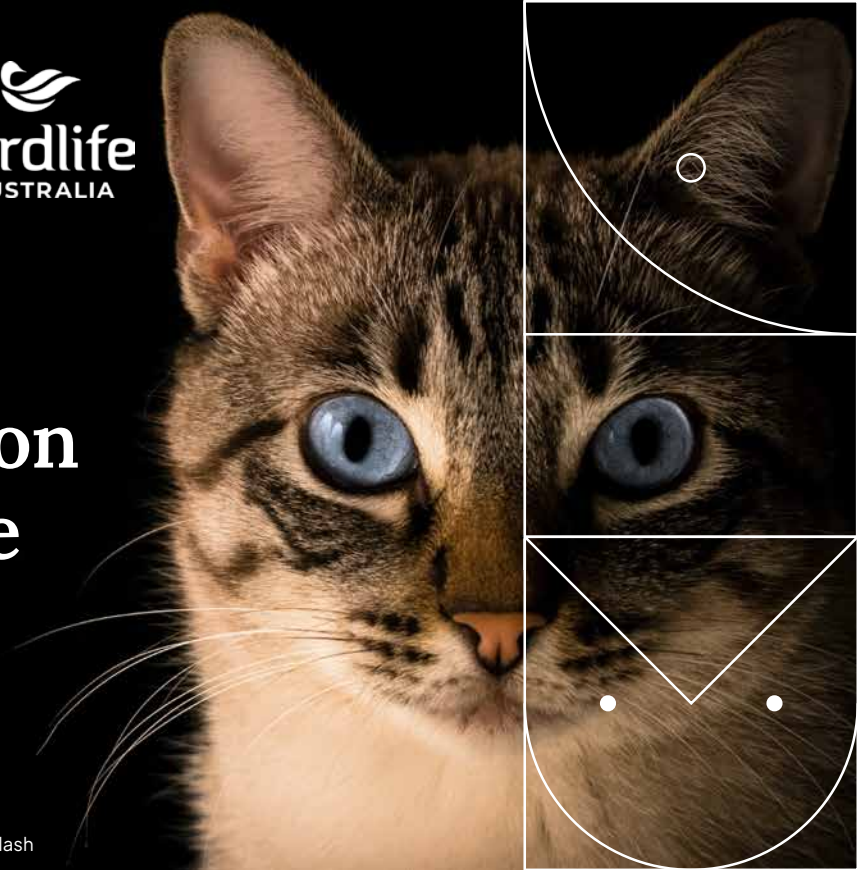


The impact of roaming pet cats on Australian wildlife

Factsheet

June 2023

Image: Pacto Visual on Unsplash



This factsheet summarises research findings on the impact of Australia's pet cats on wildlife. It also provides information for cat owners and local government organisations about how to reduce the impact and improve the welfare of pet cats.

Pet cats, despite their valued role as companion animals, are a major threat to wildlife. Collectively, roaming pet cats kill 546 million animals per year in Australia. As such the management of cats has major implications for Australia's wildlife and ecosystems.

One third of Australian households (33%) have pet cats, and about half of cat-owning households have two or more cats: the total pet cat population in Australia is 5.3 million.

Pet cats that are kept contained 24 hours per day (indoors or in a secure outdoor cat run) are safe for wildlife. In Australia, around 1.6 million pet cats are contained in this way 24 hours per day by responsible pet owners.

The remaining 3.7 million pet cats – 71% of all pet cats in Australia – are able to roam, and 78% of these roaming cats hunt, presenting a major threat to wildlife in their local areas.

Many people are unaware that their pet cat is leaving the house and roaming. A radio-tracking study in Adelaide found that of the 177 cats whom owners believed were inside at night, 69 (39%) were sneaking out for nocturnal adventures.

Many owners believe their cats don't hunt because they never come across evidence of killed animals. However, studies of pet cats using video-tracking collars or scat analysis have established that the vast majority (85%) of the animals killed by pet cats are not brought home.

Radio tracking, video collars and poo analysis have revealed the roaming and hunting habits of pet cats

On average, each roaming, hunting pet cat kills more than three animals every week. The numbers add up. On average, over a year each roaming and hunting pet cat in Australia kills 186 animals. This number includes 110 native animals (40 reptiles, 38 birds and 32 mammals).



A happy indoor cat.
Image: Jaana Dielenberg



Pet cats in homes near bushland roam the furthest and hunt the most frequently.

Image: Oliver Schwendener on Unsplash

Every cat counts

Some cat owners may think the contribution of their own cat doesn't make much difference. However, we found that even individual pet cats have driven the decline and complete loss of populations of some native animal species in their area.

Documented cases have included: a feather-tailed glider population in south-eastern New South Wales; a skink population in a Perth suburb; and an olive legless lizard population in Canberra. Anecdotally, many people have experienced that native birds become scarce or absent in their gardens once a pet cat (their own, or that of a neighbour) takes up residence.

Killing animals is not the only significant impact of pet cats on wildlife. When cats prowl and hunt in an area, wildlife have to spend more time hiding or escaping. This reduces the time spent feeding themselves or their young, or resting. In Mandurah, Western Australia, the disturbance and hunting of just one pet cat and one stray cat caused the total breeding failure of a colony of more than 100 pairs of fairy terns.

Fast facts on pet cats in Australia

Total pet cat population:	5.3 million
Percentage of households with pet cats:	33%
Size of animals cats can kill:	up to 4 kg
Percentage of pet cats that roam:	71%
Percentage of roaming cats that hunt	78%
Mean home range of a pet cat:	2 hectares (size of two playing fields)
Average density of roaming, hunting pet cats in Australian suburbs:	54 to 100 per km ²
Average number of animals (mammals, birds and reptiles) killed per roaming cat per year:	186
Number of all mammals, birds and reptiles killed by pet cats per year:	546 million
Number of native mammals, birds, reptiles killed by pet cats per year:	323 million

Concentrating the problem

Pet cats are concentrated in very high densities in our cities and towns. In suburbs that do not require containment, you'll find up to 100 roaming and hunting cats per square kilometre.

In the bush there's only one feral cat for every three to four square kilometres, so even though each individual feral cat kills about 4 times more animals per year than a pet cat, cats inflict a much higher toll per square km in suburbs, than in the bush.

In fact, roaming, hunting pet cats kill 30–50 times more native animals per square kilometre in suburbs than feral cats kill per square kilometre in the bush.

About one third of the animals killed in urban areas are introduced species like rabbits, house mice, house sparrows and Indian mynas. If we count only native wildlife, pet cats kill 6,000 to 11,000 animals per square kilometre each year in urban areas.

These numbers include the numbers of birds, mammals and reptiles killed. Cats also kill frogs and invertebrates, but there are not sufficient data to include these prey groups in these totals.

Benefits of a life indoors

Indoor cats can be happy and exercised too. Keeping cats indoors helps protect pet cats from injury and disease, reduces expensive vet bills, prolongs the cat's lifespan, avoids nuisance behaviour and prevents unwanted breeding.

Cats allowed outside often get into fights with other cats, even when they're not the fighting type (they can be attacked by other cats when running away). They can also be badly injured or killed by other animals, especially dogs and snakes. Roaming cats are also very prone to getting hit by vehicles.

Indoor cats have lower rates of infectious diseases, some of which can be spread to humans. For example, the cat-borne disease toxoplasmosis can cause illness, miscarriages and birth defects in humans.

With some of your attention cats can be happy and healthy living indoors.

Image: Rubaitul Azad on Unsplash



What can pet owners do?

Keeping your cat securely contained 24 hours a day is the only way to prevent it from killing wildlife. Containment means keeping your cat indoors or in a secure cat run if outdoors. Even if you keep a cat in at night, it can still hunt birds and lizards by day. Containment needs to be 24 hours per day.

It's a myth that a good diet or feeding a cat more meat will prevent hunting: even cats that aren't hungry will hunt.

Various devices, such as bells on collars, are commercially marketed with the promise of preventing hunting. While some of these items may reduce the rate of successful kills, they don't prevent hunting altogether. These devices also don't prevent cats from disturbing wildlife, which is also a serious problem.

Desexing cats before they are sexually mature (i.e., by five months of age) has multiple benefits for their health and wellbeing; by preventing unwanted breeding you will also prevent your cat from contributing to Australia's feral cat population.

Microchipping, and putting identifying information on your cat's collar, will ensure that if it 'escapes' or roams beyond your property it can be returned to you.

Registering your cat with your local council will help to support responsible pet management programs in your local area.

Encourage your friends to also contain their cats.



*Studies have found that each roaming, hunting pet cat kills **110 native animals** per year on average*

Image: Raphael Schaller on Unsplash

What can councils do?

Cat owners are primarily responsible for the behaviour of their cats but local councils also have a key role to play. Council programs and by-laws can encourage responsible pet management, reducing impacts on wildlife and reducing nuisance behaviour by roaming cats.

Local councils can strengthen and improve by-laws and management of pet cats by:

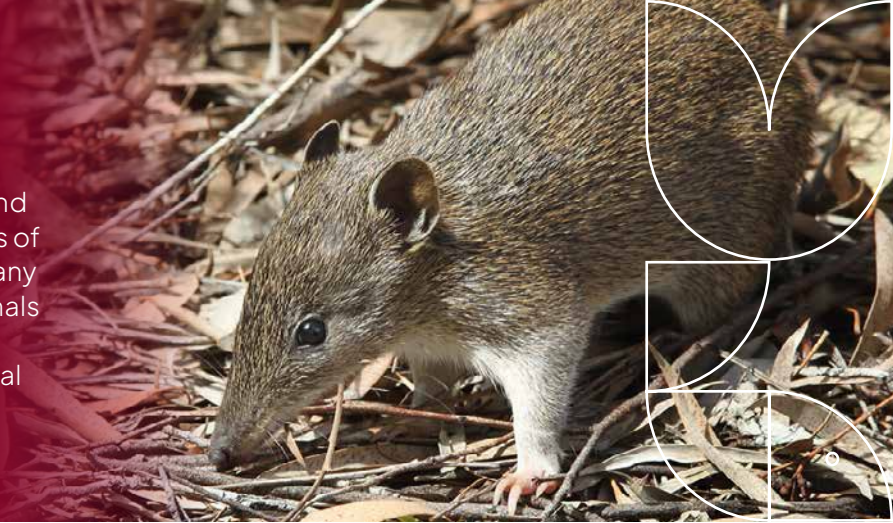
- Developing a companion animal management plan
- Setting up cat registration fee structures that incentivise desexing of cats, and dis-incentivise keeping cats that are not desexed
- Introducing by-laws requiring mandatory registration and desexing of cats by 5 months, coupled with subsidised desexing programs
- Setting limits for the number of cats per household
- Introducing cat-free areas (especially in new suburbs)
- Introducing by-laws for 24-hour containment or curfews
- Encouraging/promoting responsible cat ownership, including showing benefits for cat welfare
- Reducing populations of stray cats
- Setting up a registration system that allows staff to keep track of cat breeders in local government areas
- Dedicated resourcing for regional cat management officers, who can work with multiple councils towards consistent management of pet cats. They can also work on measures to help address complex issues as they arise (hoarding, 'backyard' breeding)
- Working in collaboration with adjoining councils towards consistent regional management of cats.

These measures need to include appropriate resourcing for compliance and enforcement and relevant infrastructure, and may involve collaborations with veterinary practices.

Cats in Australia

Cats have played a leading role in most of Australia's 34 mammal extinctions since 1788, and are playing a major role in the on-going declines of over 230 threatened native species and also many non-threatened species. The loss of these animals degrades our ecosystems and diminishes the character of the natural places we value. Both feral and pet cats contribute to the problem.

Image: Southern brown bandicoot by John O'Neill



Losing nature where we live

Most of us want to see native wildlife in our towns, local parks and gardens. Pet cats are not the only threat to native wildlife in urban areas but they are one that every cat owner can reduce through responsible pet ownership.

Urban areas are important to wildlife, even threatened species. For example, the Critically Endangered western ringtail possum is found in suburban areas of Mandurah, Bunbury, Busselton and Albany, in Western Australia. The possum did not move into these areas – rather, we moved into their habitat, and predation by our pet cats makes their persistence more precarious.

Previous studies have shown that pet cats living near bushland roam further and hunt more frequently, reducing the value of natural areas that should be havens for wildlife and that are also favoured recreational places for people.

Australia is in a very good position to make change. Compared to many other countries, the Australian public are more aware of how cats threaten native wildlife and more supportive of actions to reduce those impacts.

Cat containment is manageable. Over one and a half million pet cats are already being safely contained by their owners in Australia. We need to rethink what it means to be a cat owner in Australia and see cat containment as a basic responsibility, in the same way that dog owners are expected to keep their pets contained to their property.

Who undertook this research?

The findings presented here are summarised from an analysis of the results of many dozens of studies that was undertaken by the Threatened Species Recovery Hub. The research team included scientists from The University of Queensland, The Australian National University, Charles Darwin University, The University of Sydney and Murdoch University. The research received funding from the Australian Government through the National Environmental Science Program and was published in *Wildlife Research*.

READ MORE

Dielenberg, J., Murphy, B., Dickman, C., Woinarski, J., Woolley, L.-A., Calver, M. and Legge, S. (2020) **One cat, one year, 110 native animals: lock up your pet, it's a killing machine**, *The Conversation*, 14 May 2020

Harvey, A. and Malik, R. (2020) **Don't let them out: 15 ways to keep your indoor cat happy**, *The Conversation*, 21 May 2020

Legge, S., Woinarski, J. C. Z., Dickman, C., Murphy, B. P., Woolley, L.-A., Calver, M. (2020). **We need to worry about Bella and Charlie: The impacts of pet cats on Australian wildlife**. *Wildlife Research*, 47, 523–553. <https://doi.org/10.1071/WR19174>

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Biodiversity Council



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invasive species council

The Biodiversity Council brings together leading experts including Indigenous Knowledge holders to promote evidence-based solutions to Australia's biodiversity crisis. It was founded by 11 universities including its host the University of Melbourne, with support from The Ian Potter Foundation, The Ross Trust, Trawalla Foundation, The Rendere Trust, Isaacson Davis Foundation, Coniston Charitable Trust and Angela Whitbread.

The Invasive Species Council was formed in 2002 to advocate for stronger laws, policies and programs to keep Australian biodiversity safe from weeds, feral animals, exotic pathogens and other invasive species.

BirdLife Australia the largest and longest running national bird conservation charity that is putting birds and nature on a path to recovery by informing and leading action to halt biodiversity loss and restore ecosystems.