

2015/14: Should the owners of domestic cats have to keep their pets permanently indoors?

What they said...

'Wildlife populations have been isolated and reduced largely because of habitat clearance, but domestic cat predation can be the final straw that leads to local extinctions'

Jon Stanhope, former chief minister of the ACT, and proponent of 24-hour cat containment

'If we want to have the greatest impact on protecting native wildlife, putting more resources into eradicating ferals, reducing development in new areas, harsher penalties for those who fail to desex their animals and addressing road kill is likely to be more effective than requiring everyone with a cat to build a cage on the side of their houses'

Canberra Times editorial April 7, 2015

The issue at a glance

On July 28, 2015, it was reported that the Australian federal government is seeking public support for plans to have pet cats living near areas where there are endangered native wildlife species contained within doors.

Australia's first threatened species commissioner, Gregory Andrews, has called for all cat owners to keep their pets contained 24 hours a day

On April 1, 2015, a group of prominent Australian conservationists co-signed a letter from former ACT chief minister Jon Stanhope urging the ACT government to bring forward a cat containment declaration for Canberra.

The ACT government has been considering widening cat containment beyond the new suburbs to cover all of the territory, after falling behind other states on the issue.

Under the proposal cats would be contained within their owner's property 24 hours a day.

However, a range of cat experts and enthusiasts as well as some veterinarians have argued that the proposals made by both the federal government and the ACT group are extreme and unfeasible.

Background

Cats are kept as pets in Australia and are also one of the major invasive species that are causing detrimental effects to indigenous wildlife. For biosecurity reasons any cats that are imported into Australia must meet conditions set of the Department of Agriculture, Fisheries and Forestry.

Historical records date the introduction of cats to Australia at around 1804 and indicate that cats first became feral around Sydney by 1820. There are now an estimated 2.7 million domestic cats and over 18 million feral cats in Australia. There are several ways to classify cats. They include: pet cat, house cat, domestic cat, stray, feral, semi-feral, unowned, colony cat and free-roaming, amongst others. Common characteristics that are used in defining different groups of cats include their degree of socialisation, ancestry, ownership, fear of humans and reliance on humans for their care.

The broadest two groups that can be identified are 'owned' cats, which live in a household where they are fed and cared for by humans, and 'unowned' cats that do not live in a household and may or may not be fed or cared for. The term 'free-roaming', on the other hand, can include both owned and unowned cats, since it generally refers to a lack of confinement.

Government sponsored control measures have typically focussed on feral cats, those that live in bushland without any human contact or socialisation.

However, increasingly municipalities are taking measures to control owned cats.

Control of owned cats

Owned cat control measures are intended to encourage responsible pet ownership behaviour by members of the community that own cats or look after a cat in some way (semi-own).

The anticipated outcome of such measures is a reduction in the number of cats being euthanised; a reduction in the impact of stray cats on the natural environment and wildlife; a reduction in the occurrence of nuisance caused by cats, such as noise, unwanted entering and damage to properties, and a reduction in the number of cats living in poor conditions and in poor health.

Among the regulatory measures typically applied are a requirement for cats to be registered with the local government; a requirement to enable the electronic tagging of cats for identification purposes; restrictions on the number of cats able to be kept; restrictions on where a cat may roam; provisions relating to the impounding of cats; penalties for abandoning of cats; and incentives, such as a subsidy for the sterilisation of cats; compulsory confinement and night curfew; and cat-free zones

Current cat containment in the Australian Capital Territory

A cat containment area can be declared in a suburb, or area of a suburb, if there is a serious nature conservation threat as a result of cat activities. The ACT Government pursuant to Section 81 of the Domestic Animals Act 2000, has declared the following areas to be cat containment areas: Bonner, Crace, Coombs, Denman Prospect, Forde, Lawson, Molonglo, Moncrieff, Wright and The Fair at Watson.

Throsby was announced as a new cat containment area on Monday 20 April 2015. Cat containment legislation will also

be effective in Jacka from 1 January 2017

Federal government cat containment proposal

The federal government is seeking public support for expanded '24-hour containment requirements for domestic cats, particularly close to identified conservation areas of significance'. The measure has been listed as a high priority.

Internet information

On July 31, 2015, The Northern Star gave a wide range of readers' opinions on the federal government's proposal to impose a 24-hour cat containment curfew. Comments range from full support to full opposition.

The article can be accessed at <http://www.northernstar.com.au/news/readers-react-247-cat-curfew-proposal/2724895/>

On July 29, 2015, RT.com published an article titled 'Australia's war on cats: 24-hour curfew planned for domestic felines' The article reported on the federal government's plan to seek public support for '24-hour containment requirements for domestic cats, particularly close to identified conservation areas of significance'.

The full report can be accessed at <http://www.rt.com/news/311042-australia-domestic-cat-curfew/>

On July 28, 2015, The Sydney Morning Herald published a report titled 'Push for 24-hour cat curfew to protect native animals'

The report outlined the federal government's plans to impose 24-hour cat containment curfews in designated areas across Australia.

The full text of the report can be accessed at <http://www.smh.com.au/federal-politics/political-news/push-for-24hour-cat-curfew-to-protect-native-animals-20150727-giloew.html>

On April 7, 2015, The Canberra Times published an editorial titled 'Complete cat containment should be last resort' The editorial is critical of the recent call for complete cat containment in the ACT.

The full text can be accessed at <http://www.theage.com.au/comment/ct-editorial/complete-cat-containment-should-be-last-resort-20150407-1mfysi.html>

On April 4, 2015, The Canberra Times published two letters under the heading 'Habitat loss, not cats, is the greatest danger to birds'

Each was critical of the proposal to have a 24-hour cat containment curfew imposed in the ACT.

These letters can be accessed at <http://www.canberratimes.com.au/comment/ct-letters/habitat-loss-not-cats-is-the-greatest-danger-to-birds-20150403-1meay2.html>

On April 1, 2015, The Canberra Times published a comment by Jon Stanhope calling for a 24-hour cat containment curfew to be implemented in the ACT. The comment is titled 'Roaming domestic cats should be brought to heel'

The full text can be accessed at <http://www.canberratimes.com.au/comment/roaming-domestic-cats-should-be-brought-to-heel-20150331-1mbtca.html?rand=1428040564272>

On April 1, 2015, The Sydney Morning Herald published a report titled 'Scientists, Jon Stanhope, former Greens push ACT-wide cat lock-up'

The report detailed plans for call for a 24-hour containment curfew to be imposed on all cats in the ACT.

The full text of this report can be accessed at <http://www.smh.com.au/environment/animals/scientists-jon-stanhope-former-greens-push-actwide-cat-lockup-20150331-1mbub9.html>

On April 1, 2015, ABC News ran a report titled 'Cat containment: Expanded laws could mean end of the feline for Canberra's carefree cats'

The report detailed plans for call for a 24-hour containment curfew to be imposed on all cats in the ACT.

The full text of the report can be accessed at <http://www.abc.net.au/news/2015-04-01/expanded-cat-containment-laws/6365000>

On March 22, 2013, the Australian Geographic published an analysis and comment piece titled 'Natural born killers: the problem with cats'. Written by John Pickrell, the piece outlines the environmental impact of cats within Australia.

The full text can be accessed at <http://www.australiangeographic.com.au/topics/wildlife/2013/03/natural-born-killers-the-problem-with-cats>

An article written by Jacquie Rand BVSc, DVSc, Diplomate ACVIM, MACVS and published on the Australian Pet Welfare Foundation's Internet site in 2013 outlines the problems associated with the explosion in cat numbers, especially from a cat welfare point of view.

One of the solutions it puts forward is that all domestic cats be confined on their owners' properties.

<http://www.petwelfare.org.au/uncategorized/saving-cats/>

Victorian Domestic Animals Act 1994 details the current state-wide regulations governing cat ownership in this state. It can be accessed at

http://www.austlii.edu.au/cgi-bin/download.cgi/au/legis/vic/consol_act/daa1994163

Arguments in favour of 24-hour containment for domestic cats

1. Cats are a significant threat to native Australian wildlife.

Introduced predators have had a major impact on Australia's native wildlife. Though not the only cause of species loss, predators such as foxes and feral and domestic cats and dogs have been found to have played a major role in threatening or wiping out certain species.

As noted in the March 22, 2013, edition of Australian Geographic, 'Australia has the world's worst record for mammal extinctions; 28 species and subspecies, mostly marsupials, have become extinct since Europeans arrived, and many of these extinctions are linked to cats and other introduced species.' In December, 2012, Australian Wildlife Conservancy (AWC), which runs private conservation reserves across the nation, released a report which estimated the impact of the 5-18 million feral cats on native species such as bilbies and numbats. Each cat is estimated to kill 5-30 animals a night so (using a population estimate of 15 million feral cats in Australia) AWC concludes that a minimum of 75 million native animals are killed daily.

In 2007 the South Australian Government's Department of Environment and Heritage released information including a far more conservative estimate of the number of native animals killed per domestic cat. 'On average, a domestic cat kills 16 mammals, 8 birds and 8 reptiles, a year according to an Australia-wide survey.' However, as concerned conservationists note, given that Australia's domestic cat population is estimated at some 2.7 million this amounts to an annual kill total of over 40 million native animals a year.

The Victorian Department of Environment and Sustainability has suggested that the number of native animals killed per domestic cat may be even higher. In an action statement released in 2004 it stated, 'Regardless of how well-fed a domestic Cat is, it may prey on live animals.

[Studies have] estimated that an average domestic Cat kills at least 32 vertebrates per year (8 birds, 16 mammals, 8 reptiles).'

Similar concerns have been voiced in other countries. A recent study conducted by the University of Georgia in the United States found almost 50 per cent of the domestic cats they monitored were active hunters.

The South Australian Government's Department of Environment and Heritage has warned, 'Cats that live close to remnants of bush are likely to kill a wide range of native wildlife. Cats in suburbia can also have a large effect because cat numbers in these areas are high and numbers of native animals are generally low.'

It has also been claimed that cats can be a disease vector, carrying diseases which can kill native wildlife. Thus the South Australian Government's Department of Environment and Heritage has further warned, 'Cats are the host of a blood disease called Toxoplasmosis which can cause sickness and death in some species of wildlife.'

2. Cats are safer and healthier when not allowed to roam

Domestic cats live longer and healthier lives if they kept indoors. The online cat information site Cat World states, 'Statistics indicate that the life span of an indoor cat is much longer than an outdoor cat. On average, an indoor cat lives twelve years but some cats can live for as many as twenty years. In comparison, an outdoor cat's life expectancy is less than five years.'

Many animal welfare groups strongly recommend keeping cats contained, either indoors with toys or with limited outdoor access through the use of a cat run, for the animals' health and wellbeing. The RSPCA claims that keeping cats confined protects them from wandering into unfriendly territory, sustaining injuries from fighting, being exposed to acts of cruelty, being injured or killed in car accidents and from catching diseases such as FIV as a result of fighting with other cats.

The Blue Mountains City Council Environmental Fact Sheet No 10: Keep Your Cat Safe & Sound Indoors states, 'Cats who roam are at risk of: disease from other cats; attack from parasites (such as worms and ticks; injury from cars, human cruelty, poison baits and attacks from other animals...'

The risk of contracting FIV or Feline Immunodeficiency Virus is very much greater for cats that are not contained. FIV is a potentially fatal viral disease that weakens the immune system of cats in a similar way to the manner in which HIV affects humans, though the disease is not the same and cannot be spread from felines to humans. According to the Macarthur Veterinary Group, between 14% and 29% of cats in Australia test positive to the disease. The prevalence of FIV varies with location, with the highest rates of infection to be found in New South Wales and Western Australia. While there is a vaccine for the disease, the shot only protects from one of the five subtypes of FIV and can cause false positives when testing for any of the remaining four types. Therefore most vets strongly recommend housing cats solely indoors, or in a safe cat run, to prevent the risk of them being exposed to or fighting with a FIV positive cat. While a cat can live for many years with FIV, the disease does shorten the expected lifespan of the animal and creates an added strain on household budgets by causing higher rates of illness and requiring extra vet visits. In a household of multiple cats, either the infected cat needs to be contained away from the rest of the household for the rest of its life, or the difficult decision to re-home the infected cat must be made - a difficult task to accomplish as many homes and shelters will not want an FIV cat.

3. Other methods and devices aimed at reducing the effects of cats have failed

It has been claimed that many of the devices intended to reduce cat predation of bird life have relatively little effect. Songbird Care and Education Center (SCEC) is a non-profit California Corporation dedicated to the Care and Rehabilitation of sick, orphaned and injured Songbirds. On its Internet site it claims that cat attacks are the single greatest cause of injury to the birds brought to the centre for care. The centre further claims that the measures usually

recommended to reduce bird attacks have minimal effect. The SCEC Internet site states, 'Even well-fed cats kill birds and other wildlife. A cat's hunting instinct is independent of the urge to eat.'

The centre also states, 'Studies show that bells on collars are not effective in preventing cats from killing animals. Birds do not necessarily associate the sound of a bell with danger, and cats can learn to silently stalk their prey.'

In April 2012 The New York State Conservationist published an article by Christine Donovan titled 'The Ultimate Hunter: Domestic cats and wildlife populations'. Donovan makes similarly claims, 'Cats are a particular threat in the early summer, during birds' vulnerable fledgling stage. Many people think that attaching a bell to their outdoor cat will keep it from catching prey, but this is not the case. Studies show that the bell usually does not alert prey until it is too late, or not at all.'

A three month study conducted by Dr. Yolanda van Heezik and Dr. Christoph Matthaei from the Department of Zoology of the University of Otago, New Zealand, showed that while belling predatory domestic cats reduced the number of native animals killed, it was no solution to the problem.

Dr. van Heezik stated, 'This study shows it is worthwhile for domestic cats to wear bells and would go some way towards reducing the huge numbers of native birds cats catch. It won't eliminate the problem...'

4. Roaming cats can be a nuisance to neighbours.

Unlike dogs, simple fences will not contain a cat. Therefore, roaming cats will often enter the yards and sheds of neighbouring properties and can present a nuisance to the home owners. Cats will use garden beds and children's sandpits as litter trays, which can spread diseases such as toxoplasmosis. Toxoplasmosis is particularly dangerous to pregnant women, young children and people with compromised immune systems. It manifests in symptoms such as swollen lymph glands or muscle aches and pains that last for a month or more and can cause damage to the brain, eyes, or other organs. Most infants who are infected while still in the womb have no symptoms at birth, but may develop symptoms later in life. A small percentage of infected newborns have serious eye or brain damage at birth.

Roaming cats will also often get into fights and, if not desexed, mate with other wandering cats. Both activities are loud and often take place at night, which may disturb people trying to sleep and can lead to nuisance animal reports being made to councils.

The community attitudes survey undertaken in Victoria found that 68% of respondents had seen a cat wandering in their neighbourhood and that 40% had observed a wandering cat more than ten times in a month. 62% consider that cats wandering into their property are a nuisance.

Roaming cats can also be very expensive to their owners. If the cat in question is identified or trapped, most councils will issue fines of \$70 or more. Many councils also have a separate fine for a cat being 'at large' as well as a fine for a cat being a nuisance, so cat owners who allow their pets to roam could find themselves paying more than \$140 for doing so. Fees may also increase for animals that are repeated being found to be roaming or causing a nuisance.

In some jurisdictions cats which are trapped more than once on a neighbour's property can be put down.

In Victoria, the Domestic Animals Act 1994 states that 'The occupier of any premises where a dog or cat is kept or permitted to remain must not allow that animal to be a nuisance.'

Under the terms of the Act a cat may be considered a nuisance 'if it injures or endangers the health of any person; or if it creates a noise...which persistently occurs or continues to such a degree or extent that it unreasonably interferes with the peace, comfort or convenience of any person in any other premises.'

5. When allowed to stray, domestic cats boost the feral cat population.

Abandoned or straying domestic cats can contribute to feral cat populations.

Domestic cats may learn to live on their own and become feral. If these cats are not spayed or neutered, they produce feral kittens, which usually live their entire lives without human contact.

Feral cats often live in a group of related cats, called a colony, but if food is scarce they may roam alone.

A colony typically occupies and defends a specific territory where food and shelter are available. Feral cat colonies often live near dumpsters or restaurants, beneath porches, in barns or in abandoned buildings. Even though many of these cats do not enjoy long lives, they breed and overpopulate rapidly. Human intervention and care is crucial to ensure their welfare and prevent more feral cats from being born into these difficult circumstances.

Because they are largely independent feeders, even in semi-urban environments it is estimated that they have a larger impact on wildlife than roaming domestic cats. Where these feral populations move into bushland their impact on wildlife is even greater.

The Wollongong City Council's information brochure Stray and Feral Cats in Our Community states, 'Although there is a standing population of feral cats, recruitment is constantly occurring from the domestic population.'

Even the best kept cat can go wild, whether through wandering too far from its home area when hunting or via interactions with feral cats.'

Arguments against 24-hour containment for domestic cats

1. 24-hour containment is physically harmful for domestic cats

It has been claimed that permanent containment can have a number of adverse physical effects on cats.

Canberra veterinarian Dr Michael Archinal has claimed that some types of containment could do more harm than good to felines. He has stated, 'There are many cases where it [containment] is actually detrimental to the health of the cat rather than being beneficial. There are some conditions such as recognised bladder conditions which are contributed to by restricting cats capacity for movement and restricting them to litter trays.'

Obesity is also a significant cat welfare issue and a problem to which cats kept in containment are particularly prone. Outdoor cats in the wild must maintain fitness, and therefore a lean body weight, in order to successfully hunt for food. Such fitness is not required in sedentary, indoor cats, and they take advantage of the highly-palatable food that is readily available, without any undue physical effort to sustain.

Among the health issues to which obese cats are prone are: cardiovascular disease; insulin dependent diabetes mellitus (sugar diabetes); hepatic lipidosis (a type of liver disease); lameness due to arthritis (joints wear out due to carrying too much weight); skin disease (from not being able to groom properly) and urinary tract infection (due to fat folds of skin collecting faecal debris and bacteria).

Gina Spadafori, a columnist writing for The Pet Connection, notes, 'Obesity in pets causes a lot of the same problems it does in people. An overweight pet is prone to a host of health problems, including diabetes, joint, ligament and tendon difficulties, breathing and heart challenges. Not to mention the reduced quality of life many of these animals suffer.'

In an article written by Jacquie Rand BVSc, DVSc, Diplomate ACVIM, MACVS and published on the Australian Pet Welfare Foundation's Internet site in 2013, the author stated, 'Containment...contributes to obesity and diabetes which reduce a cat's life span. For example, in one study only 50% of obese cats were alive in 4 years after initial study contact compared to 80% for lean cats.'

2. 24-hour containment is stressful for domestic cats

It has been claimed that containment has adverse psychological effects on cats. Chief among these are stress and depression. Depression in cats can prompt significant changes in behaviour, including changes in eating patterns, excessive sleeping, aggression, vocalisation, withdrawn behaviour, excessive grooming and litter box issues.

Bored cats are also likely to exhibit erratic such as damaging carpets, furniture, upending garbage containers, tipping food and water bowls, cord chewing, waking their owners early in the morning, shifting small items (such as jewellery), biting or scratching their owners.

Canberra veterinarian Dr Michael Archinal has stated, 'Depression and anxiety in our pets and this is often because of a lack of environmental enrichment.'

Dr Archinal explained further, 'Cat confinement is on the increase in Canberra so we are seeing some of these conditions increasing.'

I have great concerns about cats being totally confined to the house (where) there is a total lack of environmental enrichment for the cat especially with people being away for extended periods of time.

It is not fair for the cat and it is not appropriate.'

In a letter published in The Canberra Times on April 4, 2015, Geoff Potts stated, 'Confining cats to cages within and without households is cruelty in the extreme. Since when in nature are felines confined in a small area, unable to roam as is their nature, and do what cats do everywhere else in the wilds of nature?

This is a continuing and growing example of 'the few' imposing their narrow-minded views on the majority and adds to making Canberra a laughing stock around the nation.'

3. Psychological problems as a result of containment are particularly likely in cats that have previously had significant access to an outdoor environment.

In a letter published in The Northern Star on July 31, 2015, Melanie Smith described the condition of her 11-year-old cat which has recently had to be confined for 24-hours-a-day.

'The boredom and distress is evident and I believe my cat...is in angst as he knows a normal life. It's painful to deny my cat fresh air and natural environment.'

In the same edition of The Northern Star a letter from Amy Carter stated, 'Cats need to run around and explore just as much as dogs do and it's cruel to keep them locked up inside. Maybe the government should focus on wild cats and dogs rather the domestic ones that have done nothing wrong.'

The RSPCA's Internet site similarly notes, 'A cat that has experienced living outdoors beyond the owner's property boundary may become distressed if suddenly kept totally indoors. In these cases cats may begin to display behavioural problems due to the stress of confinement and their health and welfare may be compromised.'

On March 12, 2015, the Australian Veterinary Association ACT Division Committee stated, 'Cats that are unaccustomed to being contained may suffer distress if suddenly restricted. This may lead to the development of behavioural problems which may increase relinquishment rates, both of which are undesirable from an animal welfare perspective.'

4. The impact of domestic cat predation on wildlife is often exaggerated

There have been numerous claims that the extent of the impact of domestic cats on wildlife numbers and danger of extinction has been overstated.

The British Royal Society for the Protection of Birds (RSPB) has stated, 'Despite the large numbers of birds killed, there is no scientific evidence that predation by cats in gardens is having any impact on bird populations UK-wide. This may be surprising, but many millions of birds die naturally every year, mainly through starvation, disease, or other forms of predation. There is evidence that cats tend to take weak or sickly birds.'

The RSPB elaborated this point, explaining, 'It is likely that most of the birds killed by cats would have died anyway from other causes before the next breeding season, so cats are unlikely to have a major impact on populations.'

According to this line of argument, though domestic cats do prey on bird species, they do not do so in a way that it likely to increase the attrition rate beyond what would occur naturally, as they kill birds who would not survive.

Allison Grasheim, of Alley Cat Allies, has stated, 'There's a difference between mortality-the death of individual birds-and

impact-a change in the population from year to year.'

Grasheim has also noted that some aspects of domestic cats' predatory behaviour can be of benefit to native wildlife populations. She has commented, 'Cats are just a part of a wider ecosystem and do not just prey on birds. They will also reduce the populations of other pest such as mice, rats, and rabbits. Removing cats from the ecosystem may have unforeseen consequences on the ecosystem as a whole, also to the detriment of native wildlife.'

Queensland veterinarian, Eva Berrima, has stated, 'Cats eat mainly rodents and small rabbits, the so-called "pest" species. If these animals are not available, only then will they prey on birds and other wildlife. Several studies have indicated that cats play a crucial role in regulating rabbit populations in Australia, a country that has spent a fortune on trying to control rabbits by other means.'

5. There are many more significant causes of species loss than domestic cats

It has been claimed that domestic cats are often held responsible for species decline when, in fact, the causes lie elsewhere.

The World Wildlife Foundation (WWF) cites the following factors as the principal causes of species loss: habitat loss, climate change, invasive species, pollution and unsustainable trade. Habitat loss is rated as the most significant factor. Critics of a concentration on one invasive species - cats - claim the species is being effectively scapegoat to prevent human beings from having to concentrate on the adverse effects of widespread human behaviours, such as deforestation.

Referring to the causes of species loss in New Zealand, Cath Watson, the President of the Companion Animal Society of New Zealand Veterinary Association, has stated, 'Habitat destruction and competition for food sources from introduced species such as rabbits, possums, insects and introduced bird species also have a huge impact on New Zealand native wildlife, arguably more so than owned cats.'

The British Royal Society for the Protection of Birds (RSPB) has stated, 'Those bird species that have undergone the most serious population declines in the UK (such as skylarks, tree sparrows and corn buntings) rarely encounter cats, so cats cannot be causing their declines. Research shows that these declines are usually caused by habitat change or loss, particularly on farmland.'

An article posted on the Community Biodiversity Network on September 17, 2001, pointed out that Australia is the biggest clearer of woodlands and forests of any developed country on Earth. 'At present, evidence indicates that an average of about 500,000 hectares of native bush is being cleared every year - or more than 100 football fields destroyed every hour in Australia ... Land clearing is having a devastating effect on millions of birds, reptiles and other animals, who are killed immediately or die from starvation or injury soon after their habitats are destroyed.'

According to Dr Garnett, author of the new Action Plan for Australian Birds, 7.5 million birds are killed every year as a result of land clearing.

Referring to birds endangered in the Australian Capital Territory, David Rees, in a letter published in The Canberra Times on April 4, 2015, stated, 'Regent honeyeaters are not a regular sight in the ACT now, last one I saw here was more than 10 years ago. The decline of this species is national and landscape-scale habitat loss over its entire former range (Victoria to South-East Queensland) is the likely main issue. The swift parrot is a winter migrant from Tasmania - the plight of its breeding habitat in Tassie is well recorded in the media. The ACT is a tiny part of its overwintering range and not the main one.'

Rees concluded that ACT domestic cats could not be blamed for the position of either species, 'When either of these birds appear, they are hyperactive feeders high in the canopy, well out of the range of the average domestic cat.'

Further implications

The following comment regarding the impact and management of cat populations in Australia was published in The Conversation on September 15, 2014. It was written by Tim Doherty, PhD Candidate at Edith Cowan University and Mike Culver, Associate Professor in Biological Sciences at Murdoch University.

The full text can be accessed at <http://theconversation.com/ferals-strays-pets-how-to-control-the-cats-that-are-eating-our-wildlife-31182>

In Australia, feral cats outnumber stray and pet cats in terms of both absolute numbers and their relative impacts on native fauna. Feral cats prey on hundreds of species of birds, mammals and reptiles and have contributed to the extinction of more than 20 mammal species. It's estimated that tens of millions of native animals are eaten by feral cats each night.

Make no mistake though, some stray and pet cats are natural born killers too. The majority of wildlife taken by cats in urban areas is likely to be rats, mice and common bird species, but cats are also a potential threat to endangered species that live in urban areas, like the western ringtail possum in Busselton, Western Australia and the southern brown bandicoot in south-eastern Melbourne.

Managing the impacts of different groups of cats on wildlife requires different approaches. Keeping your pet cat indoors or confined to your property can prevent it from killing wildlife.

Trap-neuter-return of stray and colony cats does nothing to prevent individual cats from killing wildlife. Feeding is ineffective too because cats may hunt even if they're not hungry. Removal of stray cats from urban areas is the only way to stop them from eating wildlife.

Landscape scale control of feral cats in Western Australia can be achieved through annual aerial baiting and this is currently being tested in other parts of Australia too. Unfortunately though, the cats always come back, especially in good

rainfall years. Predator-proof fencing and predator-free islands are important sanctuaries for threatened fauna that can't survive even low levels of cat predation.

The future is looking pretty grim for Australian wildlife and reducing the impacts of cats in all categories is an essential component of fauna conservation plans, especially for our endangered birds and mammals.

Newspaper items used in the compilation of this issue outline

The Age: April 22, 2015, page 2, news item by Benjamin Preiss, 'Council curfews rein in marauding moggies'.

<http://www.smh.com.au/environment/animals/cats-curtailed-as-council-curfews-rein-in-marauding-moggies-20150421-1mpq2l.html>

The Age: July 19, 2015, page 30, comment (on pet cats, wild cats' effects on native animals and birds) by Andrew Masterson, 'It's war, and fur will fly'.

<http://www.theage.com.au/comment/hello-kitty--the-government-has-you-in-its-sights-20150716-gieceb.html>

The Australian: August 1, 2015, page 5, news item (photos of Dirk Hartog Island - peripheral interest - ref to cats, goats eradication) by P Taylor, 'Cats' days are numbered as island returns to call of the wild'.

<http://www.theaustralian.com.au/news/nation/cats-days-numbered-as-dirk-hartog-island-returns-to-the-wild/story-e6frg6nf-1227465480597>

The Age: July 29, 2015, page 2, news item (photo of cat with killed bird) by Nicole Hasham, '24-hour curfew for killer cats'.

<http://www.smh.com.au/federal-politics/political-news/push-for-24hour-cat-curfew-to-protect-native-animals-20150727-giloew.html>