

## INQUIRY INTO MANAGEMENT OF CAT POPULATIONS IN NSW SUPPLEMENTARY QUESTIONS Sentient

- (1) Jaana Dielenberg from the Biodiversity Council claimed at the Inquiry that ‘at the moment, cat borne diseases—this is the diseases that can only be carried and sustained in the Australian community because of the presence of cats—cost the New South Wales economy \$2 billion a year.’ What is your response to this? Do you believe free-roaming cats are spreading disease on this scale, or is the reality a bit different - please provide details.

We do believe this is an over-estimate. Domestic cats are the definitive host for the protozoan parasite *toxoplasma gondii*, which enters their bodies through eating infected rodents or other small animals. Infected cats (mostly kittens) shed the parasite in an oocyst form in their faeces for up to 3 weeks. This can cause seropositivity and clinical infection (toxoplasmosis) in native Australian mammals and in immunocompromised humans, as well as abortion and foetal abnormalities in pregnant women, although the source of illness in most humans is through handling undercooked or raw meat, and infection from kittens is easily preventable.<sup>1</sup> It has been estimated that at any given time, only about 1% of the feline population is found to be shedding oocysts; furthermore, cats who have previously shed do not tend to re-shed.<sup>2,3</sup> The study cited by the Biodiversity Council’s submission<sup>4</sup> is not open access, but it is evident from the available summary online that the authors themselves concede their economic cost estimates of cat-dependent diseases (toxoplasmosis and cat-scratch disease) were based on a collation of national and global data on infection rates, health and production consequences.

- (a) Are you aware of any scientific research or evidence showing that mandatory cat containment laws would reduce the spread of potential cat-related diseases? If there is any disease risk, are there humane ways to address this? If so, please provide details.

We are not aware of any evidence that mandatory cat containment laws would reduce the spread of potential cat-related diseases. In fact, there is no evidence that domestic cats (owned, semi-owned or unowned) are responsible for the transmission of toxoplasmosis to native animals. Feral cats living in non-urban and peri-urban areas have undoubtedly contaminated the environment with infective oocysts and this contamination is thought to be widespread, but we need further research to identify the resulting rates of seroprevalence (positive antibodies in the blood) and their correlation with actual clinical disease in Australian native animals such as marsupials.

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<sup>1</sup> <https://kb.rspca.org.au/knowledge-base/what-is-toxoplasmosis/#:~:text=Toxoplasmosis%20is%20a%20disease%20that,infect%20any%20warm%2Dblooded%20animal.>

<sup>2</sup> Calero-Bernal, R., et al (2019) Clinical toxoplasmosis in dogs and cats: an update. Front Vet Sci

<sup>3</sup> Hill, D., et al (2002) *Toxoplasma gondii*: transmission, diagnosis and prevention. Clin Microbiol Infect, 8(10), 634-40.

<sup>4</sup> Sarah Legge, Pat L. Taggart, Chris R. Dickman, John L. Read and John C. Z. Woinarski. Cat-dependent diseases cost Australia AU\$6 billion per year through impacts on human health and livestock production. *Wildlife Research* 47(8) 731-746 <https://doi.org/10.1071/WR20089>

Wildlife Health Australia<sup>5</sup> has asserted that: “Attempts to limit the disease that focus solely on control or management of feral cats may have limited success” and have suggested humane options such as feral cat sterilisation programs and developments in vaccine technology to protect native wildlife.

2) The Biodiversity Council gave evidence that ‘we are in the position where we do need to euthanise cats around the street’. What is your response to this – do you agree we ‘need to euthanise cats’ taken off the street? What do you see as the possible negative outcomes if this was to take place, and what more humane solutions are available to avoid these negative outcomes? (a) What impact would this have on pound and shelter staff, or other frontline workers, if they were required to kill large numbers of healthy cats from the street? Please provide any examples and details if appropriate. (b) To your knowledge, is there any evidence that such a strategy of trapping and killing free-roaming cats would be effective in reducing the number of free-roaming cats?

The suggestion that we are in a position where we need to euthanise cats around the street is both outrageous and barbaric. The language is inflammatory and vilifying and potentially incites deliberate cruelty towards cats. It will also increase nuisance complaints by the public about cats. We consider this comment to be irresponsible and there is no evidence base for adopting such an approach. It places the lives of owned and semi-owned cats at risk and would lead to distress and grief in their owners, many of whom may be reliant on their cats for company. Humane alternatives for getting cats off the street, which would improve their own safety, include owner education campaigns, targeted free desexing and microchipping campaigns for owners who cannot afford these services and, where needed, changes to rental accommodation laws that allow owners to keep their cats indoors with contained outdoor access.

- a) What impact would this have on pound and shelter staff, or other frontline workers, if they were required to kill large numbers of healthy cats from the street? Please provide any examples and details if appropriate.

The impact of ‘euthanising cats taken off the street’ would increase the intake of cats and kittens to pounds and shelters that are already overwhelmed, forcing staff to euthanase even more cats, most of whom are young and healthy and could otherwise be returned to their owners or rehomed. This is a well-known cause of ‘burnout’ and emotional trauma for all staff involved. No professional should be placed in such a moral dilemma, and we have ample evidence that veterinary staff, animal attendants and animal management officers are already experiencing a negative impact on their mental health due to unnecessary killing of cats and kittens. This thoughtless suggestion takes no account of the personal impact on staff and is highly irresponsible when there is already a national shortage of veterinarians.

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<sup>5</sup> WHA Fact sheet: Toxoplasmosis of Australian mammals | October 2019,  
[https://wildlifehealthaustralia.com.au/Portals/0/ResourceCentre/FactSheets/Mammals/Toxoplasmosis\\_of\\_Australian\\_Mammals.pdf](https://wildlifehealthaustralia.com.au/Portals/0/ResourceCentre/FactSheets/Mammals/Toxoplasmosis_of_Australian_Mammals.pdf)

- b) To your knowledge, is there any evidence that such a strategy of trapping and killing free-roaming cats would be effective in reducing the number of free-roaming cats?

There is no evidence that trapping and killing free-roaming cats would effectively reduce their numbers and in fact, the opposite is the case. The impact of trap and kill programs for unowned cats is outweighed by the breeding rate of remaining cats and furthermore, by what is known as the “vacuum” effect whereby sexually active cats from surrounding areas then move in to the area, attracted by its resources.<sup>6</sup>

- (3) Ms Jaana Dielenberg from the Biodiversity Council gave the following evidence with respect to trap-neuter-release (TNR) programs: I have been told by some advocates of that method that it is proven, but there is no evidence that it reduces cat numbers in the landscape over time. In fact, there's evidence that it doesn't. What is your response to this – do you agree there is no evidence TNR programs work? If not, please explain why.

The success of TNR programs depends on the context and management. These programs were designed for the management of domestic versus feral cats. There is strong evidence that TNR programs conducted in urban and peri-urban areas, often referred to as community cat programs, significantly reduce intakes to shelters, euthanasia rates of healthy cats and kittens and nuisance complaints about cats. These are programs that support semi-owners of cats to become owners, eventually relinquishing some cats for adoption and moving towards keeping their cats contained. A recently published study on outcomes from a Community Cat Program conducted between 2020 and 2023 in a small regional town in Queensland with few vets and no access to low-cost desexing<sup>7</sup> reported rapid effectiveness over the three-year period. This study involved free desexing, microchipping, and preventative veterinary care for all owned, semi-owned, and unowned cats in Ipswich, an area with high numbers of cat impoundments. This produced a 60% decrease in cat intakes, an 85% decrease in euthanasia and a 39% decrease in cat-related complaints to the local council. Of interest, all semi owners of 1-2 cats took full ownership at time of desexing.

To be successful, TNR programs must involve ongoing care by members of the public, who can also organise the desexing of any immigrant cats who move into the area. The RSPCA has identified the following factors as essential for TNR programs:

“The main factors which contribute to successful TNR programs that have been identified include a high level of desexing in a targeted area, removal of kittens and socialised adults for adoption, monitoring and rapid desexing of immigrant cats, strong

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<sup>6</sup> Swarbrick, H., & Rand, J. (2018). Application of a Protocol Based on Trap-Neuter-Return (TNR) to Manage Unowned Urban Cats on an Australian University Campus. *Animals*, 8(5), 77. <https://doi.org/10.3390/ani8050077>

<sup>7</sup> Rand J, M. Saraswathy A, Verrinder J, Paterson MBA. Outcomes of a Community Cat Program Based on Sterilization of Owned, Semi-Owned and Unowned Cats in a Small Rural Town. *Animals*. 2024; 14(21):3058. <https://doi.org/10.3390/ani14213058>

community engagement, support from the community, and ongoing data collection and evaluation.”<sup>8</sup>

With correct management, TNR programs can definitely stabilise and reduce the populations of unowned and semi-owned cats but without such monitoring, these populations can increase due to migration of unowned or abandoned cats to the area.

- (4) The Committee heard evidence that gene drive technology to reduce free-roaming cat numbers is likely decades away. You mentioned another fertility control option in your evidence, namely, immunocontraceptives. Do you think that with the right funding and investment from the government, immunocontraceptives could be utilised as a method for fertility control in cats much sooner than gene drive technology?

The study I meant to speak of during the hearing was a recent study from the University of Melbourne’s Veterinary School<sup>9</sup> that involved in vitro development of immunocontraceptives targeting the zona pellucida 3 gene (that facilitates sperm binding to the oocyte) and the gonadotropin releasing hormone (GRH) that triggers the release of hormones that regulate the development of sperm and egg cells. These immunocontraceptives could be introduced to the feral cat population using a mild form of herpes virus already present in the population, which would allow self-dissemination, reducing the reproductive ability of male and female cats. This is still early work and does involve gene therapy that could be used with large populations, but the next stage would be to test the immunocontraceptives in vivo. This should not be decades away but is not immediately available.

Additionally, with appropriate funding from the government, immunocontraceptives that are already available could be used for fertility control in cats. One example is the Deslorelin implant<sup>10</sup>, a GnRH agonist, which stops cycling for up to 3 years and reduces testosterone levels in male cats for up to one year is already being used in domestic cats. This would require the trapping and sedating of feral cats for insertion, like a microchip, which is much less invasive than surgery.

- (5) In respect to the use of 1080 poison, the committee heard evidence that ‘native animals are very tolerant of it and so it can be used quite effectively without any impacts on native wildlife’. Do you agree with this statement – and if not, why not? Is there evidence native animals are suffering, and dying, from the use of 1080 in Australia? Please give details.

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<sup>8</sup> <http://kb.rspca.org.au/knowledge-base/what-are-trap-neuter-return-programs-in-cat-management/>

<sup>9</sup> Ellen Cottingham, Thuriid Johnstone, Paola K. Vaz, Carol A. Hartley, Joanne M. Devlin.. Construction and in vitro characterisation of virus-vectored immunocontraceptive candidates derived from felid alphaherpesvirus 1. Vaccine 42, Issue 22, 17 September 2024, <https://www.sciencedirect.com/science/article/pii/S0264410X24006157?via%3Dihub>

<sup>10</sup> <https://www.vin.com/apputil/content/defaultadv1.aspx?pId=22915&catId=124668&id=8896758&ind=287&objTypeID=17>

This statement is an oversimplification. Sodium fluoroacetate (1080 poison) is derived from plants of the *Gastrolobium* genus, referred to as ‘poison pea’ plants. These are found mostly in regions of Western Australia, where many native animals have evolved tolerance to the poison depending on the degree to which these plants are present in their microhabitat. Examples include quokkas, the dibbler and goannas. However, the situation is different in southeastern Australia where these plants do not grow and therefore, native animals are more susceptible.<sup>11, 12</sup> Recent research using remote cameras in south-eastern Australia found that non-target native species, primarily native mice, accounted for 88% of interactions with 1080 baits (defined as digging up or eating the baits) and that they were much quicker to do so than target species such as foxes and dingoes.<sup>13</sup> A 2022 study investigating the uptake of toxic Eradicat baits by non-target species in five eastern Australian environments found that 13 non-target species (including mammals, birds and one reptile) were at high risk of mortality.<sup>14</sup> This is an area where more research should have been conducted on the potential impacts on non-target species but given the unacceptable suffering 1080 causes to target species and also to domestic and working dogs who are inadvertently poisoned, Sentient advocates a total ban on 1080 poisoning.

(6) Dr Kim Filmer from DPIRD gave the following evidence to the committee: This morning, somebody spoke about catching them, desexing them, vaccinating them and then releasing them. The vaccine is not going to work because they need to have two shots. You're not going to catch a cat a second time in a cat trap. That is a problem in terms of disease control and biosecurity. The welfare of cats that are released is suboptimal, I would say... If you have to trap the cat in the first place, then the cat's going to be difficult to be provided with ongoing care. So the fact that it's called trap, neuter and release, in itself, is a concern because, if the cat's coming in for food but it's not quite enough that somebody can actually catch it—and you've got to trap it to then desex it, and then presumably release it again—that ongoing situation means that if it gets sick, if it gets its eyeball scratched out by a tomcat down the road or if something else happens to it, the person that's caring for it and has affection for it, or feeds it occasionally, is not then going to be able to catch it to provide it with veterinary care. So you've immediately got a welfare problem.

(a) Do you agree with Dr Filmer that the welfare of cats released as part of a TNR or community cat desexing program are ‘suboptimal’? If not, why not?

Dr Filmer’s evidence raises important considerations. We agree that the welfare of cats who are trapped, neutered and returned must be overseen. TNR can result in poor welfare if there is

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<sup>11</sup> <https://theconversation.com/1080-baits-are-used-to-kill-foxes-cats-and-dingoes-but-other-animals-can-be-more-likely-to-eat-them-246415#:~:text=More%20targeted%20methods%20for%20controlling,and%20wildlife%20conservation%20in%20Australia>

<sup>12</sup> <https://www.publish.csiro.au/ZO/ZO03040>

<sup>13</sup> <https://www.publish.csiro.au/WR/WR24117>

<sup>14</sup> <https://pubmed.ncbi.nlm.nih.gov/33969610/>

insufficient monitoring of the program. Semi-owned and unowned cats may be reliant on humans for food, but vary in temperament, whether they can be handled at all or whether they are extremely wary of humans and require trapping before veterinary interventions. Some of the ways of overcoming this include fear free handling techniques and gradual familiarisation, including feeding them in an open cage.

Regarding vaccination, the World Small Animal Veterinary Association's Guidelines for the Vaccination of Dogs and Cats states that for cats over the age of 16 weeks (who have presumably never had kitten vaccinations), providing live attenuated core vaccines are administered (these cover Feline panleukopenia virus, feline herpesvirus-1 and feline calicivirus): "Two doses 2 to 4 weeks apart are generally recommended although a single dose can be expected to protect many cats". However, non-core vaccines for Feline Immunodeficiency Virus and Feline Leukaemia Virus would require two and three doses respectively.<sup>15</sup>

- (b) What kind of care is typically provided to a free-roaming cat that has been trapped for vaccination and desexing by a rescue or community cat carer?

The provision of food and water, shelter, vaccination, de-worming and flea treatment plus transport for veterinary care as needed. The aim is for these cats to be formally owned and gradually be trained to live indoors and be contained on their properties.

- (c) Do you agree with Dr Filmer that it would be impossible to re-trap a cat that is part of a TNR program or cat colony, in the event they required further vaccinations or veterinary care?

Having spoken to veterinarians in our membership body who have worked on community cat programs, we believe this would be the exception rather than the rule. Over time, many of these cats become tamer and allow themselves to be petted. In some cases where they are absolutely unable to be caught, it may be possible for a veterinarian with the requisite training to use a dart gun as a last resort.

- (d) Do you have any other concerns or comments about the evidence given by Dr Filmer?

Only that this evidence may be biased towards the negative experiences of some individuals rather than the findings of research programs that have managed large numbers of community cats over at least a 3-year period.

- (7) An inquiry witness expressed the view that, on balance, she believes it is better for the animal's welfare to kill a cat, rather than desexing and releasing that cat back into the community. Do you believe that killing a cat is better for their welfare than desexing the animal and providing ongoing care in the community? If not, why not- please provide details.

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<sup>15</sup> <https://wsava.org/wp-content/uploads/2024/04/WSAVA-Vaccination-guidelines-2024.pdf>

There is no evidence base for this view, particularly when we consider that a significant proportion of cats from community cat programs become formally owned by their 'semi-owner' or adopted by another individual. This also overlooks research evidence that semi-owners feel strongly attached to the cats in their care, with levels of attachment close to those reported by cat owners.<sup>16</sup> The witness's comments overlook the goal of targeted desexing community programs, which is to move towards full ownership for these cats and reduce the number who are living in a semi-owned state. In the process, they are provided with preventative care and veterinary treatment as needed, all of which improves their welfare status and may in fact provide them with higher standards of welfare than many owned cats are receiving. Many argue that death is not a welfare issue providing that death is humane. Sentient's approach is to also consider the ethics of any situation affecting animals, and we believe that if people can give animals a chance at a better life through responsible measures, then we are ethically obliged to do so. There is more than enough unnecessary killing of cats, and this is not justified by skewed views of the benefits of programs that have produced excellent outcomes. What is needed are ongoing government grants and funds to expand such programs.

Additional comments:

Towards the end of the hearing, a few committee members were asking the AVA witness about whether the veterinary profession has any plans to designate an organised taskforce of veterinarians to kill feral cats. Unfortunately, I was speechless and failed to make the following point: The veterinary profession's most important role is to safeguard the welfare of animals. Our government representatives should move beyond adopting unnecessary killing of healthy animals, particularly by means that cause pain and suffering, and adopting evidence-based approaches to the management of all cats, whether they are feral or domestic. All these animals are sentient beings and must be treated accordingly.

Dr Rosemary Elliott, President on behalf of Sentient

5/5/2025

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<sup>16</sup> A Cat Is a Cat: Attachment to Community Cats Transcends Ownership Status. (2023). *Journal of Shelter Medicine and Community Animal Health*, 2(1). <https://doi.org/10.56771/jsmcah.v2.62>