



## Protection of Biodiversity in Australia: Is Killing Cats an Effective and Ethical Approach?

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➤ Les chats classés comme sauvages sont considérés comme un problème environnemental majeur en Australie en raison de leurs effets néfastes sur la biodiversité indigène. Les régulateurs se tournent fréquemment vers l'empoisonnement, le tir et le piégeage mortel, faisant du meurtre l'objectif réglementaire. Dans certaines juridictions, cette approche s'est étendue aux chats errants et aux chats décrits comme du gibier. Pourtant, peu de preuves montrent que, sur le long terme, l'abattage à grande échelle a conduit à une réduction du nombre de chats sauvages ou errants, ou à une amélioration des problèmes environnementaux. Au lieu de cela, la mise à mort soulève la difficile question du bien-être des chats qui empiète sur la gestion de l'environnement, appelant à une concentration renouvelée sur l'objectif d'atténuation des dommages environnementaux, plutôt que de souligner le nombre de chats tués.

➤ Los gatos clasificados como salvajes se consideran un problema ambiental importante en Australia debido a sus efectos perjudiciales sobre la biodiversidad nativa. Los reguladores recurrirán con frecuencia al envenenamiento, disparos y trampas mortales, haciendo del asesinato el objetivo regulatorio. En algunas jurisdicciones, este enfoque se ha extendido a los gatos callejeros y a los gatos como animales de caza. Sin embargo, hay poca evidencia que muestre que, a largo plazo, la reducción conduce en gran medida a una reducción en el número de gatos salvajes o callejeros, o a una mejora de los problemas ambientales. En cambio, la matanza plantea el difícil problema del bienestar de los gatos que incide en la gestión ambiental, y exige un enfoque renovado en el objetivo de mitigar el daño ambiental, en lugar de resaltar el número de sus gatos.

Cats are an introduced, or non-native species, who were brought to Australia by the first fleet in 1788. Towards the end of nineteenth century, they were classified as “the enemy of the rabbit” and deliberately released by the thousands, in an attempt to control another introduced species, the European rabbit. However, observers quickly noted that instead of attacking rabbits, cats also attacked native birds and animals. This set the scene for a regulatory confrontation, which by the late twentieth century had crystallized into the question of how to manage feral cats to protect native biodiversity, while still taking cat welfare into account.

For management purposes, definitions and descriptions of cats in Australia follow the feral/stray/domestic hierarchy set out in the 2015 Threat Abatement Plan for Predation by Feral Cats (2015 Threat Abatement Plan), published by the Commonwealth government:

- **feral cats** are those that live and reproduce in the wild (e.g. forests, woodlands, grasslands, deserts) and survive by hunting or scavenging; none of their needs are satisfied intentionally by humans;
- **stray cats** are those found in and around cities, towns and rural properties; they may depend on some resources provided by humans but are not owned;
- **domestic cats** are those owned by an individual, a household, a business or corporation; most or all of their needs are supplied by their owners.<sup>1</sup>

These descriptions and definitions establish how and where cats live their lives, identifying the presence of cats in the Australian landscape. However, for feral cats and in some jurisdictions stray cats, these descriptors also act as regulatory and ethical filters, which attribute environmental harm to the mere presence of cats. Politically, this justifies killing, so that regulators, and conservation biologists in general, aim for eradication of feral cats by continuous use of lethal methods, such as trapping, hunting and poisoning. However, broadscale killing rarely mitigates environmental harm in the long-term. The latter can be attributed to the fact that cat populations tend to bounce back after eradication operations, as well as the fact that killing cats deals with

only one of the many reasons for decline in native biodiversity.

Moreover, from an ethical perspective, the focus on killing feral cats also influences the choice of methods to control stray cats, rejecting non-lethal approaches such as Trap-Neuter-Return

(TNR), which involves capturing and neutering cats, then returning them to their original place of capture. Anima-



lists support the integration of non-lethal management methods, including TNR, as part of a suite of measures to manage cats in urban and peri-urban areas.<sup>2</sup> Some ecologists and biologists, such as Daniel Ramp, Mark Bekoff and Arian Wallach also question wholesale killing as the preferred management approach, ascribing instead to compassionate conservation, which rejects the normalization of killing to protect biodiversity at large.<sup>3</sup>

Against this backdrop, feral cat management is framed as an environmental problem and its focus on killing raises two issues: first, using the concept, or term “feral” as a proxy for environmental harm; and second, using the number of cats killed as a measure of success in environmental governance. These issues are also relevant to broader inquiries concerning the ethics of wholesale killing and the entrenchment of killing as the most effective management option.

With respect to the use of terms, Australian jurisdictions have largely centered on cats’ relationship to humans, including whether the cat is owned, its degree of reliance on humans for resources and where the cat is located, either away from humans in outback areas, or near humans in urban and peri-urban regions. As already mentioned, classification of cats as feral, stray or domestic emphasize the “how and why” of cats’ lives, which are relevant to

2. Joan E Schaffner, Geoffrey Wandersford-Smith, Peter Joseph Wolf, Julie Levy, Sophie Riley and Mark James Farnworth, “Sustaining Innovation in Compassionate Free-Roaming Cat Management Across the Globe: A Decadal Reappraisal of the Practice and Promise of Trap-Neuter-Vaccinate-Return (TNR)” (editorial) (2019) *Frontiers in Veterinary Science*, doi: 10.3389/fvets.2019.00365.

3. Arian D Wallach, Chelsea Batavia, Marc Bekoff (including Daniel Ramp) et al, “Recognizing Animal Personhood in Compassionate Conservation”, (2020) 34 (5) *Conservation Biology*, 1097, <https://onlinelibrary.wiley.com/doi/pdfdirect/10.1111/cobi.13494>.

1. Department of the Environment, *Threat Abatement Plan for Predation by Feral Cats*, Commonwealth of Australia, 2015, 7, available from <http://www.environment.gov.au/system/files/resources/78f3dea5-c278-4273-8923-fa0de27aacfb/files/tap-predation-feral-cats-2015.pdf>.

From an ethical perspective, the focus on killing feral cats also influences the choice of methods to control stray cats [...].

identifying the location or presence of cats, but do not necessarily identify their potential for environmental harm. Nevertheless, the practical effect is to create a regulatory hierarchy, where domestic cats, that is cats who are owned, are the most protected and feral cats the least protected. Although at first glance, categorizations of feral and stray cats are somewhat similar because they are not owned, their management differs because stray cats are not automatically earmarked for destruction. A typical example of this type of regulation is found in section 34 of the *Cat Act 2011 (WA)*, which provides that feral cats are to be destroyed immediately, whereas operators of cat management facilities may try to rehome stray cats. In this way the classification of a cat as feral becomes a substitute for ascribing environmental harm, resulting in detrimental consequences for feral cat welfare.

What is more, the differences among the definitions, which are based on cats' relationships to humans rather than biological distinctions, side-step meaningful engagement with cat welfare, particularly for feral cats. This point was acknowledged by the Victorian Department of Sustainability and Environment in their management plan for *Predation of Native Wildlife by the Cat *Felis catus*, Action Statement*, where they noted that "[a]ll Cats are biologically the same, whether they are domestic (owned) pets, roaming unowned Cats (strays) or feral Cats".

These issues are exacerbated in jurisdictions such as Queensland, that classify all cats as either owned (domestic), or unowned, effectively dispensing with the stray classification and extending the feral (unowned) classification. The *Biosecurity Act 2014 (QLD)* achieves this outcome by classifying animals, including cats, as "biosecurity matter" or "restricted matter". The former term describes species, pathogens and contaminants that pose a risk to human, animal or environmental health; while "restricted matter" consists of a list of species, including non-domestic cats, set out in schedule 2 of the act. Although such terminology might suggest that classifications focus on preventing environmental harm, the fact that "restricted matter" refers to unowned cats, indicates that regulators are still concerned with the how and where of cats' lives and their relationship to humans. Accordingly, rather than identifying and managing the potential for environmental harm, the Biosecurity Act aims to control how society relates to cats.

Consistent with this line of thought, sections 42-45 of the Biosecurity Act create a range of offences for feeding or moving restricted matter (feral and stray cats), which means that members of the public and veterinarians who treat or care for these animals breach the law. This of course, prohibits the use of non-lethal approaches such as TNR, particularly for managing stray cats.

In other jurisdictions, regulators use terms such as pest, or game animal to validate killing feral cats as part of management of introduced species. For example, sections 5 and 17 of the *Game and Feral Animal Control Act 2002 (NSW)* allow shooting of cats living in the wild. Although not explicitly articulated, the underlying premise is to pro-

vide a means of eradicating feral cats, solely on the basis that they are living in the wild, which assumes the potential for environmental harm, opening yet another regulatory pathway to wholesale killing.

Yet, wholesale killing has many disadvantages, including ignoring the fact that eradication of feral and stray cats from mainland Australia is not a feasible option. This drawback is not limited to the Australian jurisdiction, but is common in many countries where introduced animals have established themselves for an appreciable length of time.<sup>4</sup> In the case of cats, this means that killing will not reduce populations in the long-term unless the number of cats killed surpasses the replacement rate, and this is difficult to gauge given uncertainties surrounding population numbers, and the phenomenon of population bounce back, where numbers of animals increase following culling operations.

Nevertheless, the focus on raw killing statistics to gauge the success of strategies and programs is widespread. Australia's Threatened Species Strategy, published in 2015, for example, aimed to kill two million feral cats by the end of 2020, yet did not explain how killing this number of cats would improve biodiversity outcomes. In an analogous manner, a case study involving Brisbane City Council observed that one of its programs had eradicated 391 cats and was deemed a success because of "a reduction in public complaints about stray cats and... anecdotal increases in sightings of... bush stone curlews".<sup>5</sup> The study did not provide census statistics, or refer to programs that may have been implemented concurrently by Brisbane City Council to deal with threats to bush stone curlews, such as predation by foxes. At the same time, a different study on public perceptions of eradication programs conducted by Brisbane City Council, concluded that 79% of respondents would choose TNR to manage stray cats, with only 18% preferring existing lethal programs.<sup>6</sup>

Surveys on public perceptions of cat management in Australia and New Zealand reveal a complex relationship between classifications, people's experience with cats, and the legitimacy of regimes. Above all, participants viewed environmental concerns as taking precedence over individual animal welfare, although they were also reluctant to support lethal measures against stray cats in comparison to feral cats. On this last point, participants felt empathy for cats depending on whether they had kept a cat as a companion animal. If they had, empathy extended to domestic and stray cats, but not to feral cats, with whom they had no contact. As Farnworth *et al* conclude, this "may result in a

4. Pablo García-Díaz, Phillip Cassey, Grant Norbury, *et al*, "Management Policies For Invasive Alien Species: Addressing The Impacts Rather Than The Species" (2020) *BioScience*, b139, 1, 1, <https://doi.org/10.1093/biosci/b139>.

5. John L Read, Chris R Dickman, Wayne S J Boardman and Christopher A Lepczyk, "Reply to Wolf *et al*: Why Trap-Neuter-Return (TNR) Is Not an Ethical Solution for Stray Cat Management", (2020) 10 *Animals* (1525), 1, 5, doi:10.3390/ani10091525.

6. J Rand, A Hayward and K Tan, "Cat Colony Caretakers' Perceptions of Support and Opposition to TNR" (2019) 6 (57) *Frontiers in Veterinary Science*, <https://doi.org/10.3389/fvets.2019.00057>.

*reduced capacity to empathize with the welfare of cats in different groupings... provid[ing]... an argument against the creation of different legislative precedents based on descriptive constructs. This is of particular importance if cats as a species, irrespective of their human-defined status, are going to be humanely controlled.”<sup>7</sup>*

The issue of human management is important for cat welfare, where the main control methods are poisoning and shooting. Strategies and management plans, such as the 2015 Threat Abatement Plan, advocate the use Sodium fluoroacetate (1080), a poison that has been critiqued for its low level of humanness. What is more, there is no antidote to Sodium fluoroacetate (1080), making residents in peri-urban areas reluctant to use it for fear of ingestion by their pets and other domestic animals. The humaneness of shooting depends on the skill and experience of the shooter, otherwise non-fatal injuries lead to slow, painful deaths.

These disadvantages confirm that alternative and non-lethal means of controlling unwanted cats are needed.

Moreover, while the quote from Farnworth *et al* refers to “legislative precedents”, it could equally refer to regulatory precedents which, as already discussed, use feral, and to a lesser extent, stray classifications as a proxy for environmental harm. A recent study on biodiversity decline in the Top End

(Northern Territory) of Australia identified this problem, remarking that killing feral cats was not necessarily the best approach to protecting native species: “Our results suggest the best way to manage the impact of cats in this region may not be to simply kill cats, which is notoriously difficult across vast, remote landscapes. Instead, it may be more effective to manage habitat better, tipping the balance in favour of native mammals and away from their predators.”<sup>8</sup>

This conclusion indicates that targeting feral cats, merely because they live in the wild, is unlikely to mitigate harm against native biodiversity. Other strategies such as managing habitat and reducing human impacts on biodiversity will achieve better results.

Indeed, Appendix A of the 2015 Threat Abatement Plan, contains some thirteen pages of lists of threatened species and the impacts on those species of a range of factors, including feral cats.<sup>9</sup> Yet, even a cursory glance at the lists

7. Mark James Farnworth, Joanna Campbell and Nigel John Adams, “What’s in a Name? Perceptions of Stray and Feral Cat Welfare and Control in Aotearoa, New Zealand”, (2011) 14 (1) *Journal of Applied Animal Welfare Science*, 59, 70.

8. Alyson Stobo-Wilson, Brett Murphy, Graeme Gillespie, Jaana Dieffenberg, and John Woinarski, “The Mystery of the Top End’s Vanishing Wildlife, and the Unexpected Culprits”, *The Conversation*, July 29, 2020, available from <https://theconversation.com/the-mystery-of-the-top-ends-vanishing-wildlife-and-the-unexpected-culprits-143268>.

reveals that threatened species face multiple hazards to their survival. The endangered Mahogany Glider faces seven threats, which are equal to or greater than the threats presented by feral cats, including high level threats from inappropriate fire regimes and habitat destruction. Similarly, the Bridled Nail-tail Wallaby, faces 10 threats in total, including five threats that are equal to or greater than the threats presented by feral cats. The latter include high level threats from climate change, habitat loss and resource depletion due to livestock and other feral herbivores. Overall, human impacts account for almost 60% of the total risks to threatened species. Consequently, even if large numbers of feral cats were killed, that action does not take into account related threats deriving from human activity.

In reality, it is counter-productive for regulators to deal with loss of biodiversity in a piece-meal way by solely targeting feral cats. This assumes that the presence of cats equates to environmental damage, and accepts the veracity of the corollary, that killing cats will remove that damage. If regulators are serious about controlling the impacts of feral cats, they need to look at the range of threats that contribute to environmental harm and acknowledge that regulatory situations vary, with urban areas requiring different approaches from outback areas. The focus on killing is disadvantageous, not only because it lacks flexibility in management approaches and side-steps cat welfare, but importantly, because it has not generally been shown to achieve positive outcomes with respect to the protection of biodiversity.<sup>10</sup> ■

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9. Sophie Riley, Peter Wolf, Julie Levy, Joan Schaffner, and Geoffrey Wandesforde-Smith, *Submission to the House of Representatives Standing Committee on the Environment and Energy Inquiry into the Problem of Feral and Domestic cats in Australia (Cat Inquiry)*, July 2020, submission 151, 16-22, available from [https://www.aph.gov.au/Parliamentary\\_Business/Committees/House/Environment\\_and\\_Energy/Feralanddomesticcats/Submissions?main\\_0\\_content\\_1\\_RadGrid1ChangePage=8\\_20](https://www.aph.gov.au/Parliamentary_Business/Committees/House/Environment_and_Energy/Feralanddomesticcats/Submissions?main_0_content_1_RadGrid1ChangePage=8_20).

10. William S Lynn, Francisco Santiago-Ávila, Joann Lindenmayer *et al*, “A Moral Panic Over Cats”, (2019) 33 (4) *Conservation Biology*, <https://doi.org/10.1111/cobi.13346>.

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