

SPCA Policy Brief

National Cat Legislation for New Zealand



Key messages

- > Cats are beloved companion animals in New Zealand. Many cat owners appreciate the benefits of responsible cat ownership such as desexing and microchipping their cats and to a lesser extent keeping their cats at home.
- > However, there are gaps in responsible cat ownership resulting in cat overpopulation that negatively impacts our urban, rural, and wild communities. There are approximately 1.2 million companion cats in 41 % of households across New Zealand, but only:
 - 88% of owners desex their cats (a downward trend from previous reports);
 - 49% microchip their cats; and
 - 11% keep their cats at home.
- > Firstly, people with cats who roam enjoy the benefits of companionship, but do not pay the true cost for letting their cat roam, especially if they are not desexed or microchipped. Secondly, there is a failure of government to protect public goods of cat welfare, native wildlife, reducing transmission of toxoplasmosis to native marine mammals and pastoral animals, and controlling nuisance in communities.
- > SPCA advocates for the New Zealand Government to take a leadership role in supporting comprehensive cat management, including requirements for cats to be microchipped, with the microchip details registered, and to be desexed unless they are registered breeding animals.
- > SPCA further supports legislation that enables local councils to pass bylaws to manage cats to protect of biodiversity, including the registration of cats on a government database.
- The National Cat Management Strategy Group (NCMSG) has extensively reviewed cat issues in New Zealand and recommend comprehensive cat management, including requirements that companion cats be desexed and microchipped (with microchip details registered) and kept at home. NCMSG members include SPCA, the New Zealand Veterinary Association, the Morgan Foundation, Local Government New Zealand, Companion Animals New Zealand, and observer members Ministry for Primary Industries and Department of Conservation.













New Zealand needs a National Cat Act

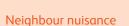


Problem:

Our ad hoc management of cats is ineffective and inhumane.

Negative impacts of current cat management:







Excessive and unwanted litters



Harm to cats



Predation on native wildlife



Transmission of toxoplasmosis

Solution: National Cat Act

Comprehensive and consistent, effective and humane management of all cats.

What it will do:



Facilitate the creation, implementation, and enforcement of local bylaws.



2

Support a national approach for desexing and microchipping cats.

Impact:

Improved outcomes for people and animals:



Cat owners and their neighbours



Conservation champions



Farmers and farm animals



Native wildlife



Cats

Based on the National Cat Management Strategy Group Report, 2020

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Why we need national cat management legislation

- 1. Cats are beloved companion animals. There are approximately 1.2 million companion cats in 41% of households across New Zealand (CANZ, 2020). Many cat owners are responsible owners (see Part 1 of SPCA's National Cat Legislation for New Zealand: Background Document for a detailed overview). However:
 - a. Just 49 % microchip their cats;
 - b. Only 11% keep their cats at home (CANZ, 2020); and
 - c. 88% of owners desex their cats (CANZ, 2020) which is a downward trend from previous reports (93.2%; Gates et al., 2019 and 93%; CANZ, 2016).
- 2. Gaps in responsible cat ownership contributes to overpopulation resulting in poor welfare for cats and kittens. SPCA Centres care for over 30,000 animals each year and regularly see:
 - a. a predictable cycle of unwanted kittens because there are too many cats roaming that are not desexed;
 - b. high numbers of cats and kittens who are lost or have strayed, but we cannot find their owner because they are not microchipped and registered; and
 - c. high numbers of cats that come to our Centres who have contagious disease, are lost or have strayed, or are injured because they roam freely from home.
- 3. The National Cat Management Strategy Group (with membership including SPCA, the New Zealand Veterinary Association, the Morgan Foundation, Local Government New Zealand, Companion Animals New Zealand, and observer members MPI and DOC) has extensively reviewed cat management in New Zealand.
- 4. In addition, SPCA scientists have recently <u>reviewed</u> the landscape of cat management policies in New Zealand (Sumner, Walker, & Dale, 2022). In this review, we included context such as New Zealanders' acceptance of current or future laws and regulations and compared this with other countries, notably Australia, to identify potential directions and outcomes of increased regulation and a review of their effectiveness.
- 5. In our review, we found, with no overarching legislation for cat management, there is no consistent approach to important issues such as desexing and microchipping. Local councils are concerned with poor compliance and lack of ability to enforce bylaws (see Appendix 2 for a detailed list of the cat policy mechanisms in New Zealand).
- 6. We also noted recent examples where local councils were reluctant to include cat management in their bylaw reviews including:
 - a. Mackenzie District Council did not include desexing and microchipping cats in the
 2021 review of their Keeping of Animals bylaw, acknowledging that a lack of legislation for microchipping and registering cats limits their ability to mandate it through a bylaw.











- b. Selwyn District Council removed desexing of cats in the 2020 review of their Keeping of Animals, Poultry, and Bees bylaw, because it would be too difficult to enforce, and Council has no ability to issue fines or fund enforcement without national legislation. The District Council did pass requirements for microchipping cats.
- 7. Improved cat management that is both humane and effective will require diverse approaches such as promoting responsible cat ownership at a national level, in addition to local engagement to ensure cat management is relevant and properly monitored (see Part 2 of SPCA's National Cat Legislation for New Zealand: Background Document for evaluation of policies and examples of different strategies).
- 8. The current approach results in harms to cat welfare, to native taonga species, to pastoral animals, and to people. We briefly summarise these impacts below, and a more detailed review is available in the <u>National Cat Management Strategy Working Group Report.</u>

Welfare problems

- 9. Failure to desex, microchip, and keep cats at home results in an increased number of cats living as strays, and seasonal influx of unwanted kittens that experience high mortality (Marston & Bennet, 2009; Nutter et al., 2004).
- 10. The abundance of lost, stray, or unwanted cats and kittens creates a complex animal management problem. There are ethical concerns about the euthanasia of thousands of healthy domestic cats and kittens every year, moral stress for the people involved, and financial costs to organisations that manage these cats (NCMSG, 2020).
- 11. Both male and female cats have a longer life span when desexed (Banfield Pet Hospital, 2013). Undesexed female cats are at risk of malignant mammary gland tumours (Dorn et al., 1968; Graf et al., 2016; Hampe & Misdorp, 1974; Hayes et al., 1981).
- 12. Microchipping facilitates reunions between lost cats and families, especially in emergencies.
- 13. Keeping cats from roaming reduces the risk of injury and death from vehicles, fighting with cats and other animals, infectious disease transmission, and ingestion of harmful substances (Bruce et al., 2019; Loyd et al., 2013; Rochlitz, 2003a, b).
- 14. The most common reasons for not desexing cats are the cost and a general feeling it is not necessary (CANZ, 2020; Gates et al., 2019). The main barriers to microchipping are owners not feeling it is necessary, the cost, and that it is not legally required (CANZ, 2020). Additionally, cat owners do not microchip their cats because they have not made the time yet to do it or did not realise cats could be microchipped (CANZ, 2020).











Predation

- 15. Cats negatively impact native bat and bird species, reptiles, invertebrates, and frogs (Farnworth et al., 2013; Fitzgerald et al., 1985; Fitzgerald, 1988; Gillies et al., 2003; Gordon et al., 2010; Norbury et al., 2008; van Heezik et al., 2010). Companion cats with outdoor access pose a risk to wildlife but their prey varies depending on their location (Farnworth et al., 2013; Gillies et al., 2003).
- 16. Regardless of whether the species targeted is native or non-native, there can be negative welfare impacts on predated wildlife (Jessup, 2004). Much of the focus on managing cats is in areas with high ecological value, however, cat predation may represent a significant cause of mortality for some bird species in urban locations (Baker et al., 2005; Greenwell et al., 2019).
- 17. A recent study that reviewed 16 years of native wildlife admissions to three wildlife hospitals in New Zealand found that cats predate a range of native wildlife in urban and rural environments. Studies such as these provide important insight into the welfare impacts of cat predation on wildlife. Of the 639 animals admitted due to cat predation (93.6% birds, 6.4% reptiles), only 38.2% of them survived (Gartrell et al. 2023).

Spread of toxoplasmosis

- 18. Cats are the only definitive host of the parasite *Toxoplasma gondii*, which causes toxoplasmosis in other animals and people (Stelzer et al., 2019). Infection of humans occurs through two main pathways: ingestion of oocysts directly from the environment (for example, from garden soil, sand pits, and unwashed vegetables) or from tissue cysts in improperly cooked meat (Dubey, 2016).
- 19. Pastorally farmed animals are primarily infected through feed and water contaminated with faeces from cats who have shed the protozoa eggs (Dubey, 2009; Stelzer et al., 2019).
- 20. Toxoplasmosis infection poses economic impacts due to abortion in sheep (Dempster et al., 2011) and deer (Patel et al., 2019).
- 21. In 2014, toxoplasmosis cost the sheep industry in the Hawke's Bay region of New Zealand approximately \$18 million (Walker, 2014).
- 22. The welfare problems from toxoplasmosis result from infection and co-occurrence with other disease (Stelzer et al., 2019). In one New Zealand study, 61 % to 85 % of sheep were positive for *T. gondii* (Dempster et al., 2011).
- 23. Toxoplasmosis is a cause of death for New Zealand's native wildlife including the critically endangered Hector's and Māui dolphins (Roe et al., 2013), New Zealand sea lions (Michael et al., 2016), and birds including kererū, North Island kiwi, and North Island kaka (Howe et al., 2014), paradise shelduck, and red-crowned kākāriki (Hunter & Alley, 2014).











Nuisance in communities

- 24. Gaps in responsible cat ownership also negatively impact people in communities.
- 25. Free roaming cats can cause nuisance in communities by defecating and spraying in gardens, fighting with other cats, and creating noise. Occasionally cats cause nuisance by damaging property. The existence of unwanted stray cats on private property can also be a source of nuisance. Cat predation on wildlife can cause community concern.
- 26. Many community groups are engaged in protecting biodiversity but are limited in preventing predation by companion cats, especially in areas where cats live near sensitive wildlife areas. Cats can negatively affect companion animals with outdoor access such as guinea pigs, rabbits, and birds through disturbance or predation (e.g., Stewart, 2014; NZVA CAV personal communication 9 December, 2019).

Recommendations for national cat legislation

27. The welfare of cats and other animals must be central to socially acceptable cat management in New Zealand (Sumner, Walker, & Dale, 2022).

Content of cat legislation

- 28. SPCA recommends the following key points for national legislation for cat management:
 - a. Purpose: the purpose of national cat legislation would be to provide for the welfare of individual cats and reduce the impact of overpopulation through responsible cat ownership.

b. Definitions:

- i. **Companion cat** means a cat considered owned by a person, sociable, and directly dependent on humans.
- ii. **Stray cat** means an unowned or semi-owned cat, of varying sociability, interactions with, and dependence on humans. These cats may or may not be managed by people.
- iii. **Feral cat** means a cat that is unowned, unsocialised, and has no relationship with or dependence on humans.











c. Requirements:

- i. Allow for national regulations that could require cat owners -
 - > To microchip their cat and register the microchip by the age of four months or prior to sale of transfer of ownership;
 - > To desex their cats by the age of four months or prior to sale or transfer of ownership. Registered breeding animals would be exempt from desexing. All cats would be exempt from desexing and microchipping where a veterinarian determines these requirements are detrimental to the health and welfare of the cat.
- ii. Allow for local councils to pass bylaws related to protecting biodiversity -
 - > To require owners to register their cat with a local government database to help track cats and provide a funding stream for enforcement.
 - > To establish areas around sensitive wildlife where cats must be controlled. Require owners to take reasonable steps to ensure their cat does not injure, endanger, or otherwise distress other domestic animals or protected wildlife, including by keeping their cat under control through confinement to their property and use of a leash/ harness or a container such as a crate when off property.
- iii. Allow for standards and policies that must be included in cat management plans for companion, stray, and feral cats.
- iv. Enable a framework for operational policy to support the establishment of local cat management advisory committees to facilitate the provision of holistic, comprehensive, and locally relevant cat management.

Who will be impacted by national cat legislation

- 29. Cat owners: Most cat owners already desex their cats and increasing numbers microchip their cats. The largest impact to the cat owner would be around any requirements to keep them at home.
- 30. **Breeders and sellers of cats**: Breeders and sellers would be impacted by requirements to desex the cats and kittens they sell prior to sale or transfer of ownership. These groups would need to register their breeding animals to be exempt from desexing requirements.
- 31. **Veterinarians:** Veterinarians are supportive of desexing and microchipping. Some veterinarians are not supportive of keeping cats at home due to perceived welfare problems with a more restricted lifestyle.
- 32. **Companion animal groups and cat rescues:** Groups that promote responsible cat ownership are generally supportive of improved cat management, especially desexing. Groups that rescue cats will benefit in a reduction of incoming stray cats and unwanted kittens.











- 33. **Local government:** Local governments would have increased mechanisms to respond to community needs related to cat management. Local councils have expressed a desire to improve cat management, but without national legislation to support local efforts, some feel that there is no legal framework for them to take action through bylaws.
- 34. **Conservation groups**: Conservation groups generally support cat management including the importance of desexing and microchipping. They also tend to put more emphasis on keeping cats at home to reduce the immediate predation pressure on native wildlife.
- 35. **Local communities:** Local communities in urban, suburban, and rural locations will benefit from cat management due to reduced nuisance such as neighbour cats soiling in gardens and a reduction of toxoplasmosis transmission to humans, wildlife, and pastoral animals.

Next Steps

- 36. SPCA advocates for New Zealand Government to take a leadership role in supporting national cat management. There are different pathways for creating policy for national cat management and all will require considerable time and resources, and each has associated pros and cons (see Part 2 of SPCA's National Cat Legislation for New Zealand: Background Document for a more detailed review).
- 37. Please see <u>SPCA's National Cat Legislation for New Zealand: Background Document' for more information.</u>











Appendix 1

New Zealand cat management policies (adapted from Sumner et al., 2022)

Table 5. New Zealand policy for companion cats

Topic	Welfare impact (+) indicates a welfare benefit; (-) indicates a welfare harm	Requirement	Source	Туре
Mandatory desexing	(+) reduced number of unwanted cats and kittens, reduced nuisance(-) increased surrender at shelters and abandonment	Mandates desexing for all cats over six months of age, born after the 1st of July 2018 (exemptions are in place for registered breeders).	2018 Palmerston North Animals and Bees Bylaw	City
Mandatory desexing	(+) reduced number of unwanted cats and kittens, reduced nuisance (-) increased surrender at shelters and abandonment	Mandates desexing for all cats over six months of age unless the cat is kept for breeding purposes and registered with a nationally recognised breeders' body, or the owner provides a veterinarian certificate that desexing will adversely impact the health or welfare of the cat.	2017 Whangārei District Council Animals Bylaw (amended 2022)	Local District















Mandatory desexing	(+) reduced number of unwanted cats and kittens, reduced nuisance (-) increased surrender at shelters and abandonment	Allow for the Council to include terms and conditions requiring desexing of cats if a person seeks approval to keep more than three cats or kittens over the age of six months on their property.	2020 New Plymouth District Council Animals Bylaw	City
Mandatory desexing	(+) reduced number of unwanted cats and kittens, reduced nuisance (-) increased surrender at shelters and abandonment	Mandates desexing for all cats over six months of age (unless kept for breeding purposes and registered with a nationally recognised breeders' body, including New Zealand Cat Fancy Ltd. and Cats Inc.). Cats are exempt is a veterinarian deems the procedure will endanger the cat's life.	2018 Ruapehu District Council Bylaw (amended 2022)	Local District
Mandatory desexing; prepubertal desexing	(+) reduced number of unwanted cats and kittens, reduced nuisance (-) increased surrender at shelters and abandonment	Requires any cat over four months of age be desexed unless for breeding purposes and be nationally registered; or the owner provides a certificate from a veterinarian indicating desexing will adversely affect the cat's health and/or welfare (veterinarians, SPCA, and cat boarding premises are exempt from this requirement).	2020 Whanganui District Council Keeping of Animals, Poultry and Bees Bylaw	Local District
Mandatory desexing	 (+) benefits from desexing; reduction in unwanted cats and kittens; reduction in predation of native wildlife. (-) increased surrender at shelters and abandonment 	Requires residents on Stewart Island/ Rakiura to desex any cat that they keep, hold, enclose, or otherwise harbour as an exemption from a prohibition of having cats (except Bengal cats) on the island; this requirement extends to any Southland resident who keep, hold, or otherwise harbour a Bengal cat.	2019 Southland Regional Pest Management Plan	Regional



Microchip and registration	(+) Ensure owners can keep companion cats (-) Increase in relinquishment	Mandates microchipping for all cats over six months of age and microchip registered on the New Zealand Companion Animal Register.	2017 Whangārei District Council Animals Bylaw (amended 2022)	Local District
Microchip and registration	(+) Ensure owners can keep companion cats (-) Increase in relinquishment	Requires microchipping for all cats over six months of age and microchip registration with the New Zealand Companion Animals Register or other Council approved microchip registry.	2018 Ruapehu District Council Bylaw (amended 2022)	Local District
Microchip and registration	(+) Ensure owners can keep companion cats (-) Increase in relinquishment	Require all cats over the age of 12 weeks be microchipped and registered on the New Zealand Companion Animal Register.	2008 Wellington Consolidated Bylaw (amended 2016)	City
Microchip and registration	(+) Ensure owners can keep companion cats (-) Increase in relinquishment	Require all cats over six months of age and born after 1st of July 2018 be microchipped and registered on the New Zealand Companion Animal Register.	2018 Palmerston North Animals and Bees Bylaw	City
Microchip and registration	(+) Ensure owners can keep companion cats (-) Increase in relinquishment	Require any cat over four months of age was required to be microchipped and registered with the New Zealand Companion Animal Register.	2020 Whanganui District Council Keeping of Animals, Poultry and Bees Bylaw	Local District
Microchip and registration	(+) Ensure owners can keep companion cats (-) Increase in relinquishment	Require every person who keeps a cat over the age of four months to microchip and register their cat with the New Zealand Companion Animal Register or other approved registry.	2020 Selwyn District Council Keeping Animals, Poultry and Bees Bylaw	Local District



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Microchip and registration	(+) Ensure owners can keep companion cats (-) Increase in relinquishment	Required if cat owners possess, keep, hold, enclose, or otherwise harbour Bengal cats (no exceptions are made for living on or travelling to Stewart Island/Rakiura and other offshore islands).	2019 Southland Regional Pest Management Plan	Region
Microchip and registration	(+) Ensure owners can keep companion cats (-) Increase in relinquishment	Required if cat owners keep, hold, enclose, or otherwise harbour in place any cat either in transit to or present on Stewart Island/ Rakiura.	2019 Southland Regional Pest Management Plan	Region
Collar and registration	(+) Ensure cats are not subject to pest control(-) Increase in the number of cats lethally managed as pests.	Cats without a collar/harness or microchip that are found outside the Gisborne urban area, or a rural ownership are defined as a feral cat and subject to pest management.	2016 Gisborne Regional Pest Management Plan	Region
Microchip and registration	(+) Ensure cats are not subject to pest control(-) Increase in the number of cats lethally managed as pests.	Will be used to distinguish pest cats from non-pest cats and subject to regulations.	2019 Greater Wellington Regional Pest Management Plan	Region
Microchip or other method and registration	(+) Ensure cats are not subject to pest control(-) Increase in the number of cats lethally managed as pests.	Will be used to distinguish an unowned cat from an owned cat and thus subject to regulations.	2020 Auckland Regional Pest Management Plan	Region
Limits on number of cats per residence	(+) Ensure owners can provide adequate care for companion cats.(-) Increase in relinquishment or abandonment.	Limits the number of cats over a certain age that can be kept at a residence. Some allow for a permit for keeping more than the stated limit.	See Kikillus et al (2017) for a detailed table of bylaws	City or District



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Ban on keeping a cat	(-) Increase in relinquishment or abandonment.	No cats shall be introduced or kept on any residential lots due to their potential to be predators of the long-tailed bat.	Environment Court of New Zealand	City Area
Ban on keeping a cat	(-) Increase in relinquishment or abandonment.	Residents on Stewart Island/Rakiura cannot possess, keep, hold, enclose, or otherwise harbour Bengal cats.	2019 Southland Regional Pest Management Plan	District
Prohibit cats from an area	(+) Ensure owners can keep companion cats out of areas where they may be managed as a pest.(-) Cat could be managed as a pest.	Any owner of a cat must ensure that their cat does not enter an intensively managed site, as defined in the plan.	2020 Auckland Regional Pest Management Plan	Region

Table 6: New Zealand policies for controlling stray cats

Topic	Welfare impact (+) indicates a welfare benefit; (-) indicates a welfare harm	Requirement	Source	Туре
Stray hold, Find owner	 (+) Reunite companion cats that have become lost; rehome stray cats that are socialised. Provide humane treatment for a stray cat if needed. (-) Stress related to confinement at shelter, risk of exposure to disease at the shelter. 	An approved organisation (e.g., SPCA NZ) that takes custody of stray cat must take reasonable steps to find the owner, is allowed to take reasonable steps to prevent or mitigate any suffering and must hold a stray cat for a minimum period of seven days before selling or rehoming the animal. This stray hold time can be avoided or reduced for a cat considered wild or unsocialised, and severely distressed due to stray hold or if the cat is diseased and this may impact other animals in custody.	Animal Welfare Act, 1999, Part 7, Section 141	City













Prohibits feeding stray cats.	 (+) Reduce the stray cat population through decrease of resources; discourage congregation of cats that may lead to fighting, spread of disease, breeding. (-) Limit on providing for the nutritional needs of cats that may rely on being fed by humans. 	Prohibits feeding or providing shelter to pest cats on public or private land without permission of the occupier. Pest cats are defined as those that are not microchipped where it is required, or not microchipped and registered, and are free-living, unowned, and unsocialised and have limited to no relationship with or dependence on humans.	2019 Greater Wellington Regional Pest Management Plan	Regional
Prohibits moving stray cats	(+) Reduce the stray cat population through decrease in moving them to different locations. Potentially reduce abandonment. (-) Not clear	Prohibits moving unowned cats to specific areas in the region or requiring building inspections in the islands that are cat-free or are considered sensitive ecological areas. An unowned cat is defined as one without a microchip or other means of identification that is unregistered and is within any site the Council declares as having sensitive ecological value.	2020 Auckland Regional Pest Management Plan	Regional
Prohibits feeding stray (and companion) cats	 (+) Reduce the stray cat population through decrease of resources; discourage congregation of cats that may lead to fighting, spread of disease, breeding. (-) Limit on providing for the nutritional needs of cats that may rely on being fed by humans. 	Prohibit a person from feeding cat within the region that contains a resident breeding or roosting population of any threatened native bird, reptile, or amphibian. This rule applies to any cat and is not specific to stray cats.	2020 Auckland Regional Pest Management Plan	Regional



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Stray cats are legally considered a pest	(-) Subject to lethal control such as shooting, trapping, or poisoning.	Stray cats are defined as companion or domestic cats that have been lost or abandoned and may have their needs indirectly supplied by humans and live around human centres.	2017 Northland Regional Pest Management Plan	Regional
Reducing abandonment	 (+) reduces the number of companion cats that are abandoned or deserted who are reliant on humans to meet their needs. (+) reduces the number of companion cats that become stray. 	It is an offense to desert an animal without provisioning for the animals physical, health, and behavioural needs.	Animal Welfare Act, 1999, Part 1, Section 14	National
Reducing abandonment	 (+) reduces the number of companion cats that are abandoned or deserted who are reliant on humans to meet their needs. (+) reduces the number of companion cats that become stray. 	Prohibits the abandonment of any cat within the Auckland region.	2020 Auckland Regional Pest Management Plan	Regional



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Table 7: Policy for managing feral cats in New Zealand

Topic	Welfare impact (+) indicates a welfare benefit; (-) indicates a welfare harm	Requirement	Source	Туре
Wildlife protection	(-) Feral cats can be controlled as pests	Feral cats are note protected wildlife.	Wildlife Act, 1953	National
Wildlife protection	(-) Feral cats can be controlled as pests	Feral cats can be managed as pests on public conservation land.	Conservation Act, 1987	National
Pest management	(-) Feral cats can be controlled as pests	Feral cats can be managed as pests through a national or regional pest management plan, or as an unwanted organism.	Biosecurity Act, 1993	National
Ill treatment	(+) Ensures humane treatment	It is an offense to commit willful or reckless ill treatment towards a feral cat.	Animal Welfare Act, 1999	National
Live trapping	(+) Ensures humane treatment	Sets time period that a cat can be held in a live trap before being removed, attended to properly, or killed without delay.	Animal Welfare Act, 1999	National



References

- Baker, P. J., Molony, S. E., Stone, E., Cuthill, I. C., & Harris, S. (2008). Cats about town: Is predation by free-ranging pet cats Felis catus likely to affect urban bird populations. Ibis, 150, 86-99.
- Banfield Pet Hospital. (2013). State of Pet Health 2013 Report. Retrieved from: https://www.banfield.com/Home/pet-health/State-of-pet-health.
- Companion Animals New Zealand (CANZ) (2016). Companion animals in New Zealand 2016. Retrieved from: https://static1.squarespace.com/static/5d1bf13a3f8e880001289eeb/t/5f556c917d0bb54905a22858/1599433901911/Companion+Animals+in+New+Zealand+2016+Report_web.pdf
- Companion Animals New Zealand (CANZ) (2020). Companion Animals in New Zealand 2020. Auckland, New Zealand. Retrieved from: https://static1.squarespace.com/static/5d1bf13a3f8e880001289eeb/t/5f6af15aec8ebd4ff4379612/1600844200674/Companion+Animals+in+NZ+2020.pdf
- Dempster, R. P., Wilkins, M., Green, R. S., & de Lisle, G. W. (2011). Serological survey of Toxoplasma gondii and Campylobacter fetus fetus in sheep from New Zealand. N. Z. Vet. J., 59, 155-159.
- Dorn, C.R, Taylor, D.O.N., & Schneider R. (1968b). Survey of animal neoplasms in Alameda and Contra Costa counties, California. II. Cancer morbidity in dogs and cats from Alameda county. J. Natl. Cancer Inst., 40:307-318.
- Dubey, J. P. (2009). Toxoplasmosis in sheep- The last 20 years. Vet. Parasitol., 163, 1-14.
- Dubey, J. P. (2016). Toxoplasmosis of animals and humans (Second edition). Boca Raton, US: CRC Press.
- Farnworth, M. J., Muellner, P., & Benschop, J. (2013). A systematic review of the impacts of feral, stray and companion domestic cats (Felis catus) on wildlife in New Zealand and options for their management. New Zealand Veterinary Association, Wellington, New Zealand.
- Fitzgerald, B. M. (1988). Diet of domestic cats and their impact on prey populations In: The domestic cat: the biology of its behaviour. Cambridge University Press, Cambridge.
- Fitzgerald, B. M., & Veitch, C. R. (1985). The cats of Herekopare Island, New Zealand; their history, ecology and effects on birdlife. N. Z. J. Zool., 12, 319-330.
- Gartrell, B.D., Jolly, M., Tissink, K., Argilla, L.S., & Esam, F. (2023). A retrospective study of native wild birds and reptiles admitted to three New Zealand wildlife hospitals due to predation by cats. New Zealand Veterinary Journal, 71, 2, 86-91.
- Gates, M. C., Walker, J. K., Zito, S., & Dale, A. (2019). A survey of opinions towards dog and cat management policy issues in New Zealand. N. Z. Vet. J., 67 (6) 315-322.
- Gillies, C., & Clout, M. (2003). The prey of domestic cats (Felis catus) in two suburbs of Auckland City, New Zealand. J. Zool., 259, 309-315.
- Gordon, J. K., Matthaei, C., & Van Heezik, Y. (2010). Belled collars reduce catch of domestic cats in New Zealand by half. Wildl, 37, 372-378.











- Graf, R., Grüntzig, K., Boo, G., Hässig, M., Axhausen, K.W., Fabrikant, S., ...Pospischil, A. (2016). Swiss Feline Cancer Registry 1965-2008: The influence of sex, breed, and age on tumour types and tumour location. J. Comp. Path., 154, 195-210.
- Greenwell, C. N., Calver, M. C., & Loneragan, N. R. (2019). Cat gets its Tern: A case study of predation on a Threatened Coastal Seabird. Animals, 9(7), 445.
- Hampe, J.F., & Misdorp, W. (1974). Tumours and dysplasias of the mammary gland. Bull. World Health Organ., 50:111–133.
- Hayes, H.M., Milne, K.L., Mandel, C.P. (1981). Epidemiological features of feline mammary carcinoma. Vet. Record, 108:476-479.
- Howe, L., Hunter, S., Burrows, E., & Roe, W. (2014) Four cases of fatal toxoplasmosis in three species of endemic New Zealand birds. Avian Dis., 58, 171-5.
- Hunter, S. A., & Alley, M. R. (2014). Toxoplasmosis in wild birds in New Zealand. Kokako, 21, 58-59.
- Jessup, D. A. (2004). The welfare of feral cats and wildlife. JAVMA, 1225(9), 1377-1383.
- Loyd, K. A. T., Hernandez, S. M., Abernathy, K. J., Shock, B. C., & Marshall, G. J. (2013). Risk behaviours exhibited by free-roaming cats in a suburban US town. Vet. Record, 173, 295.
- Marston, L. C., & Bennett, P. C. (2009). Admissions of cats to animal welfare shelters in Melbourne, Australia. J. Appl. Anim. Welf. Sci., 12, 189-213.
- Michael, S. A., Howe, L. M., Chilvers, B. L., Morel, P. C. H., & Roe, W. D. (2016). Seroprevalence of Toxoplasma gondii in mainland and sub-Antarctic New Zealand sea lion (Phocarctos hookeri) populations. N. Z. Vet. J., 64, 293-297.
- New Zealand National Cat Management Strategy Group (NCMSG) (2020). New Zealand National Cat Management Strategy Discussion Paper. Retrieved from: http://www.nzcac.org.nz/nzcac/nzcac-resources/nzcac-newsletters/7-blog/83-national-cat-management-strategy-discussion-paper
- Norbury, G., & Heyward, R. (2008). Predictors of clutch predation of a globally significant avifauna in New Zealand's braided river ecosystems. Anim. Conserv., 11, 17-26.
- Nutter, F. B., Levine, J. F., & Stoskopf, M. K. (2004). Reproductive capacity of free-roaming domestic cats and kitten survival rate. JAVMA 225, 9, 1399-1402.
- Patel, K. K., Burrows, E., Heuer, C., Asher, G. W., Wilson, P. R., & Howe, L. (2019). Investigation of Toxoplasma gondii and association with early pregnancy and abortion rates in New Zealand farmed red deer (*Cervus elaphus*). Parasitol. Res., 118, 7, 2065-2077.
- Rochlitz I. (2003a). Study of factors that may predispose domestic cats to road traffic accidents: Part 1. Vet. Record. 153:549–53. doi: 10.1136/vr.153.18.549
- Rochlitz I. (2003b). Study of factors that may predispose domestic cats to road traffic accidents: Part 2. Vet Record, 153:585–88. doi: 10.1136/vr.153.19.585











- Roe, W. D., Howe, L. M., Baker, E. J., Burrows, L., & Hunter, S. A. (2013). An atypical genotype of Toxoplasma gondii as a cause of mortality in Hector's dolphins (Cephalorhynchus hectori). Vet. Parasitol., 192, 67-74.
- Stelzer, S., Basso, W., Benavides Silván, J., Ortega-Mora, L. M., Maksimov, P., Gethmann, J.... Schares, G. (2019). Toxoplasma gondii infection and toxoplasmosis in farm animals: Risk factors and economic impact. Food Waterborne Parasitol., 12, e0037.
- Stewart, M. (2014). Chicken-killing cat prowls unpunished. Dominion Post. Retrieved from: http://www.stuff.co.nz/dominion-post/10029913/Chicken-killing-cat-prowls-unpunished
- Sumner, C.L., Walker, J. K., & Dale, A. D. (2022). The implications of policies on free-roaming cat welfare. Animals, 12(3), 237.
- van Heezik, Y., Smyth, A., Adams, A., & Gordon, J. (2010). Do domestic cats impose an unsustainable harvest on urban bird populations? Biol. Conser., 143, 121-130.
- Walker, I. (2014). Toxoplasmosis in Hawke's Bay. A report prepared by Vet Services Hawke's Bay for Hawke's Bay Regional Council, Hawke's Bay, New Zealand.









