

Istanbul's Street Cat Population: Ecological Impact, Human Influences, and Management Strategies

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Abstract

Istanbul is well known worldwide for its large street cat population, which has become a notable part of the culture, acquiring a place in the hearts of citizens. This research focuses on exploring the effects of street cats on modern Istanbul, looking at research from local and global contexts, while simultaneously taking the effects of human actions into consideration. Findings show that Istanbul's street cat population has benefits such as pest control and proven positive effects on mental well-being. Nonetheless, the research points out the detrimental effect of an increasing street cat population which raises the need for effective control measures that stabilize growth, using laws and citizens' actions.

Keywords: Street cats, Istanbul, Population control, Human actions, Overpopulation

Introduction

Istanbul, also known as “The City of Cats”, is home to around 250,000 street cats (Bogle, 2025), and despite the numerous attempts of maintaining this population size, the street cat population has increased astoundingly compared to the estimated 100,000 in 2014 in research done by Mattson *et al.* (2015). Ecologically, domesticated street cats play a predatory role in the urban food web for many species, some of which include small avians, reptiles, and rodents. Having very few natural predators in the urban ecosystem makes cats apex predators, since their numbers are sustained by humans. In some areas, domestic street cat densities exceed what the natural ecosystem can support, this situation can create a “hyper abundant” predatory pressure that disrupts local fauna (Herrera *et al.* 2022). This qualitative research will center around the effect of street cats in modern Istanbul, focusing on the beneficial and detrimental effects of free roaming cats. Along with going into depth on both sides of the argument, this research aims to find a case from existing literature to maintain the cat population of Istanbul.

Historical benefits

Cats have played many beneficial roles for cities like Istanbul throughout centuries. Research done by Onar *et al.* (2021) suggests that cats have been present in Constantinople (now known as Istanbul) since at least the Early Byzantine Period (4th-7th centuries CE). During archeological research, a female cat that was buried alongside a human was unearthed in the Balatlar Church in Sinop (Onar, 2021). The findings of this study suggest that cats have been alongside humans as their loyal feline companions since the early times. This discovery now brings us to our day, as Istanbul is proudly known for being “A Heaven for Cats”. Along with having a substantial number of cats, it is no surprise that street cats are accepted as a part of the culture, and are cherished by millions. Although street cats do offer an emotional bond towards citizens, they also have many beneficial aspects for the urban ecology, and one of the most notable roles

of street cats is their ability to control pests. During the Ottoman time, rodent infestations were a substantial issue due to houses being made out of wood, which allowed for rodents to burrow into the interior structure. In their 2015 research article, Mattson *et al.* mentioned that cats were used for vermin control for many centuries, and even now they are renowned for their ability to control pests and keep the urban ecology balanced with their predatory role. Another critical benefit of street cats is the animal exposure that they provide for residents who are unable to take on the responsibility of an animal companion. Further research about the benefits of cats for human mental health and brain activity show that owning a cat, or being around a cat results in improved moods throughout the day, activation of the prefrontal cortex (PFC), and possible improvement in executive function (Nagasawa, 2020). This evidence supports the idea that free roaming street cats have become beneficial communal animal partners for neighborhoods.

Human Influence

Having street cats as communal pets results in a collective responsibility of care for neighborhood residents. This in turn leads to more people leaving out food, followed by an increase in the gathering of street cats in specific areas, which further increases the breeding chances hence resulting in problems like overpopulation in some areas where left out food sources are abundant, making humans important players in this dynamic that could play a key role in effective control strategies. In their research, Mattson *et al.* (2015) write about the effects of the actions of citizens thoroughly. Some may think that feeding and nourishing cats would be the best way to go, but communal food bowls raise a health concern not only for cats but all street animals that rejoice in feeding from the left out food. These communal food bowls can become a transmission vehicle for diseases that spread through bodily fluids, such as feline leukemia and others (Mattson *et al.*, 2015). It is suggested for the feeder to instead take in a stray animal to care for rather than cause unintended harm for many others.

Negative Effects of an Increasing Street Cat Population

Although Istanbul's street cat population has such beneficial effects on both the ecosystem and local residents, their increase has been linked to many negative effects especially with the imminent overpopulation. In research done by Trouwborst *et al.* (2020), points were made involving the predatory side of street cats. They indicated cats as predators in the urban ecosystem, who feed on rodents, avians, reptiles, and other wildlife; suggesting that the increase in the street cat population could result in massive ecological changes including the disruption of the food chain. Another crucial point raised was the interaction between cats and prey species, where the presence of street cats puts the prey species, which in this case are birds, rodents, and reptiles, under psychological stress. This situation may result in changes in the behaviour of prey species, giving rise to direct changes in the ecosystem. These changes have been observed in other geographies such as Australia, causing the near extinction of many prey species. The role of street cats in keeping a balanced urban ecosystem, and maintaining the population of other species cannot be overlooked. However, an uncontrolled increase in the street cat population could have more damaging environmental consequences, hence protocols to control and stabilize the street cat population have been put in place throughout Turkey.

Strategies for Street Cat Population Control

One of the most important and successful methods for street cat population control, mentioned in the res-

earch article written by Mattson *et al.* (2015), is the “Trap, Neuter, Release (TNR)” method. This method effectively forestalled the further increase of the street cat population by reducing the rate of birth for many different areas (Mattson *et al.*, 2015). In 2004, Animal Protection Law No. 5199, was put to place in Turkey with the aim to ensure that animals live comfortably, receive proper care, and are protected from pain, suffering, or torture. This law prohibited many things, some of which are as follows: inflicting unnecessary pain towards an animal, abandoning an animal or leaving it malnourished, torturing an animal or treating it cruelly, amongst others. Breaking these rules under any circumstance will result in strict punishment and even jail time (Çalışıcı, 2025). Animal Protection Law No. 5199 substantially contributed to healthily maintaining street cat populations by allowing animals to live away from harm, although this law protected animals, it also created an environment for them to thrive risk-free, which in turn caused an incline in street cat populations over time. The impact of an uncontrollable street cat population has also been observed and studied in different geographies throughout the world. Similar to Istanbul, street cats in Australia also hunt many prey species, and have been identified as the primary driver for the extinction of various species, while also causing distress by their presence (Legge *et al.*, 2026). As part of recommendations following their findings, Legge *et al.* (2026), suggest the use of roaming cat containment policies to address biodiversity and animal welfare concerns. Ideas are brought up including the advantages of cat containment for street cats, reasoning that an “indoor lifestyle” benefits the welfare of cats creating a healthier environment, thus making animal containment a reliable and successful method for Australia. The implementation of animal containment in Istanbul may result in the same level of success in stabilizing the street cat populations.

Conclusion

Conclusively, having a street cat population in Istanbul still has benefits such as rodent control and reduced stress levels for citizens. Human activity such as feeding, caring, and providing shelter for street cats are drivers of street cat population growth. Such exponential growth without proper maintenance can however lead to overpopulation which has negative environmental consequences including the extinction of prey species, and ecological imbalance; which has been observed in other countries such as Australia. Hence, law enforcement and population measures are necessary to ensure that the street cat population becomes a net positive contributor overall to the city of Istanbul. Some measures have been put in place such as the TNR protocol and Animal Protection Law No. 5199. While these attempts have shown a recognizable level of success, there has yet to be found a solution to fully stabilize the growing street cat population, implying the need for the introduction of other control measures. The primarily suggested solution, adoption, depends heavily on the actions of citizens and their desire to own a street animal. Furthermore, encouraging adoption may provide an additional societal benefit by improving citizens' mental wellbeing through the companionship and psychological support associated with cat ownership, while also preventing street cat overpopulation.

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