

The Impact of Anthropogenic Factors on the Behavior, Reproduction, Management and Welfare of Urban, Free-Roaming Cat Populations

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Abstract:

Free-roaming domestic cats constitute an integral part of many urban ecosystems worldwide; their presence results from undisturbed natural reproduction, abandonment by pet owners, and abundant food resources. These cats present controversial and emotional issues regarding management of their high densities, hygiene and epidemiologic risks to humans, and predation of wildlife. Improved urban cat management requires greater knowledge of the anthropogenic factors affecting free-roaming cat populations. In this study, we explored the relationship between caretaker treatment levels and the socio-economics of the caretakers and neighborhoods, and free-roaming cat reproduction management, behavior, and physiology in urban populations. Eight free-roaming cat feeding groups, from eight neighborhoods in Tel Aviv, Israel, were observed for six months. Neighborhoods displayed differences in socio-economic status and housing type, and cat feeding groups reflected different levels of caretaker treatment with regard to neutering, physical interaction with the cats, and medical treatment. We examined whether agonistic behaviors, neutering rates, pregnancy rates, and cortisol levels of the cats differed between groups. We found a strong socio-economic effect on neutering and pregnancy rates: low-income neighborhoods had lower neutering and higher pregnancy rates. Higher-level caretaking was associated with lowered aggression, as well as lower cortisol levels of neutered females. Additionally, analysis of data from 622 registered cat feeding groups from north (high-income) and south (low-income) Tel Aviv, obtained from the municipal veterinary department, revealed a socio-economic influence on reproduction management. Our results indicate that, in urban environments, both the neighborhood's socio-economic status and the caretaker treatment level affect management of these cat populations. We conclude that, to improve cat management success, municipalities should consider addressing these socio-economic differences, while, just as importantly, raising awareness and encouraging caretaker involvement in neutering efforts. Improved caretaker treatment levels can lead to reduced cat aggression, with consequent improved cat welfare and reduced noise disturbance to humans.

Keywords: [CARETAKERS](#); [FREE-ROAMING CATS](#); [POPULATION MANAGEMENT](#); [SOCIO-ECONOMIC STATUS \(SES\)](#); [TNR](#); [URBAN ECOSYSTEM](#)

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