

# Patterns of Native and Domesticated Predator Distribution in an Urban Nature Preserve

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**Abstract** - Urban nature preserves are vulnerable to edge effects due to their small size and to being surrounded by a matrix of human-altered landscape. It has been suggested that the construction of hiking trails may increase the edge effects for small preserves by allowing predators more access to the forest interior. In this study, we used camera traps to compare the presence/absence of two native predators, raccoons (*Procyon lotor*) and Virginia opossums (*Didephis virginianus*) and an introduced predator, domestic cats (*Felis sylvestris*) in relation to distance from forest boundaries and trail edges. There was no relationship between raccoon presence and distance to hiking trails. Our results suggest that hiking trails allowed access to forest interior as cats and opossums were found at significantly shorter distances from hiking trails in comparison to locations in which the species was not recorded. We recommend limiting trail construction to the perimeter of urban preserves as a management practice to conserve biodiversity of forest interior species.

Keywords: cats, *Felis sylvestris*, feral, edge, hiking trails, habitat fragmentation, raccoon, Virginia opossum