**Movement in the matrix: Mesocarnivores in human-dominated savannas**

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In the increasingly human-dominated landscapes of India, the survival and long-term persistence of mammalian carnivores is a major conservation challenge. This is especially the case for species that survive in the semi-arid savanna biomes of central India. Much of the conservation focus in India is on large herbivores and carnivores, yet smaller mammalian species are key components of ecosystems. Some small carnivores exist in human-modified landscapes, often venturing close to settlements and other infrastructure. However, we still lack an understanding of the behavioural strategies and ecological conditions that permit coexistence in fragmented human-modified savanna landscapes. We used a movement ecology approach to understand how multiple species of mesocarnivores survive in heavily human-modified landscapes. We fitted GPS collars to Indian foxes (*Vulpes bengalensis)*, golden jackals (*Canis aureus*) and jungle cats (*Felis chaus*), with fixes every 15-60 minutes. Our results show that fidelity to savanna vegetation varies between species, with some such as the Indian fox heavily dependent on remnant native savanna, while others such as jackals strongly avoid native vegetation. We find that Jungle cats are the most generalist, using native vegetation, irrigated agriculture as well as human settlements for foraging. For all three species however, resting locations are in either natural or cultivated dense vegetation patches. Our results suggest that survival for even relatively common species is tenuous in fragmented savanna landscapes and is dependent on the presence of undisturbed refugia.