Coyotes and red foxes may coexist within urban landscapes

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A coyote in Yosemite National Park, California, USA. Credit: Christopher Bruno/Wikipeida

Coyotes and red foxes may select different types of habitats for their home ranges, helping them to coexist in urban environments, according to a study published January 24, 2018 in the open-access journal *PLOS ONE* by Marcus A. Mueller from the University of Wisconsin, USA, and colleagues.

Urbanization greatly impacts wildlife through increased human presence, habitat fragmentation, movement barriers, and anthropogenic sources of food. In this study, Mueller and colleagues studied two adaptive canids capable of exploiting an urban landscape, coyotes (*Canis latrans*) and red foxes (*Vulpes vulpes*). They sought to determine if and how the populations of coyotes and red foxes coexisted in a human-dominated landscape.

The researchers captured, radio-collared, and tracked 11 coyotes and 12 red foxes in Madison, WI from January 2015 to December 2016. Within their study area, the researchers found that coyotes strongly selected home ranges with high proportions of natural areas. Red foxes, on the other hand, selected home ranges with open space and moderately developed areas. While there appeared to be some spatial and temporal overlap between coyote and red fox ranges, they generally appeared partitioned by habitat type within the study area.

The authors suggest that the spatial partitioning of their ranges may promote positive co-existence between coyotes and red foxes in urban areas. They also posit that their findings have the potential to better inform wildlife managers working in urban areas.

As Mueller describes his study: "We were able to begin to describe the ways that red foxes and coyotes spatially partitioned our urban study area."

More information: Mueller MA, Drake D, Allen ML (2018) Coexistence of coyotes (Canis latrans) and red foxes (Vulpes vulpes) in an urban landscape. *PLoS ONE* 13(1): e0190971. doi.org/10.1371/journal.pone.0190971