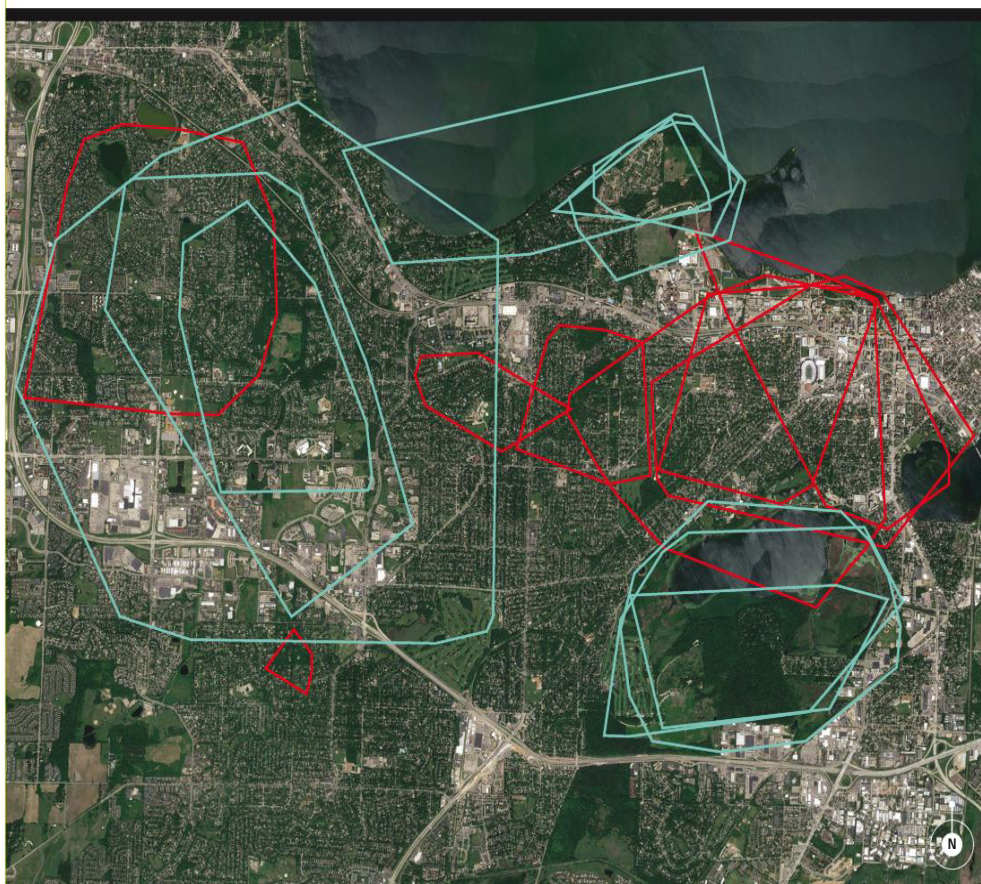


FOREGROUND / **NOW**

EDITED BY TIMOTHY A. SCHULER

CLOSER QUARTERS



95% ANNUAL HOME RANGE
 — COYOTE
 — FOX

A TWO-YEAR STUDY OF COYOTES AND RED FOXES REVEALS THE IMPACT OF URBAN ENVIRONMENTS.

BY JEFF LINK

ABOVE
 A map shows the overlapping home ranges for coyotes and red foxes in Madison, Wisconsin.

ver the past half century, coyotes have expanded their range across the continental United States and live in many North American cities—literally, in some cases, in people’s backyards. Their increased presence, says Katie Coyne, a senior associate planner and ecologist at Asakura Robinson in Austin, Texas, is one reason for landscape architects, planners, and wildlife managers to reexamine the design implications of large natural areas beyond their role as habitat for migratory birds and pollinators. Think of these areas as preferred foraging zones, she says, functional

landscapes that accommodate coyotes and limit potential conflict with people and other species.

A recently published two-year study of urban canids in and around Madison, Wisconsin, sheds light on the issue. Researchers used radio collars and statistical analysis to assess the movement and home ranges of coyotes and foxes through a mosaic of residential, commercial, and public natural areas, including tallgrass prairie and oak savanna located within the University of Wisconsin–Madison Lakeshore Nature Preserve.

DAVID DRAKE AND MARCUS MUELLER

FOREGROUND / NOW



Breaking from established behavioral patterns in rural areas, where coyotes will typically displace or kill red foxes to eliminate competition for resources, the two species were observed foraging within a hundred yards of one another for extended periods of time. In a weekly basis for a month, a pair of coyotes visited an active fox den, scavenging food scraps at the den's mouth but never harming the pups. Nor did the foxes leave—an unexpected instance of grudging coexistence.

The study, conducted by David Drake, a professor of forest and wildlife ecology at the University of Wisconsin–Madison, and Marcus Mueller, a former graduate student in forest and wildlife ecology, was published in the journal *PLoS ONE*. It's part of the ongoing Urban Canid Project, which investigates the way canids (members of the dog family) live and move in Madison. Further research will help interpret this latest study's results, but Drake theorizes that one reason the species are able to get along, if peevishly, relates to food abundance in urban areas. “Both are opportunistic animals who eat a lot of the same stuff—mice, voles, rabbits, squirrels, skunks. In urban areas they can supplement that diet with anthropogenic sources: bird seed, garden vegetables, trash, compost.”

The animals' tolerance may also hinge on the way foxes and coyotes stake out their territories. Coyotes

generally roamed large natural areas and avoided areas heavily trafficked by people. Foxes preferred open spaces but established home ranges wherever food and resources were available—turf fields, high-density developments, cemeteries—with one notable exception: natural areas where coyotes had claimed status as the apex predators.

Coyne says the study highlights the need to preserve large contiguous natural areas in metro parks as refuges for coyotes. Even site-level considerations, she says, such as the amount of vegetative cover in a neighborhood park or the deliberate inclusion of active spaces oriented for sports and play, could influence den locations and help curb unwanted interactions. “Planners need to think of park spaces as more than monoliths,” Coyne says. “The unique landscape within a park and how formal spaces are designated should be considered when making land use decisions adjacent to the park.” ●

EFT

A coyote forages in native prairie at the University of Wisconsin–Madison Arboretum.

BELOW

Urban Canid Project participants Marcus Mueller and Holly Hovanec apply an ear tag to a captured coyote.



JAYMI HEIMBUCH