

Urban coyotes could be setting the stage for larger carnivores to move into cities

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About five miles from Chicago O'Hare International Airport, scientists have located the smallest known coyote territory ever observed. For at least six years, a coyote community has maintained its existence within about a third of a square mile.

"That's an indication that they don't have to go far to find food and water. They're finding everything they need right there, in the suburbs of Chicago," said Stan Gehrt, an associate professor of environment and natural resources at Ohio State University who has led the tracking of [coyotes](#) around Chicago for 12 years. "It amazes me."

Coyotes are the largest of the mammalian carnivores to have made their way to, and thrived in, urban settings, Gehrt said.

"The coyote is the test case for other animals. [Raccoons](#), [skunks](#), [foxes](#) – they've already been able to penetrate the [urban landscape](#) pretty well. The coyote is the most recent and largest. The jury's out with what's going to happen with the bigger ones," he said.

The bigger ones include wolves, mountain lions and bears. [Mountain lions](#) have been seen on the fringes of cities already, and one was shot near the Wrigleyville neighborhood of Chicago.

"They are going to be an even bigger challenge," Gehrt said.

Since the tracking of urban coyotes began in 2000, Gehrt and his team

have captured and placed radio collars on about 680 coyotes, with 50 or 60 being tracked at any one time. He estimates that about 2,000 coyotes live in the Chicago metro area, along with 9 million people in some 250 separate municipalities.

At times, this co-existence can cause uneasiness among humans. But by Gehrt's estimation, all species of urban dwellers are probably going to have to get used to it.

"It used to be rural areas where we would have this challenge of [coexistence](#) versus conflict with carnivores. In the future, and I would say currently, it's cities where we're going to have this intersection between people and carnivores," he said. "We used to think only little carnivores could live in cities, and even then we thought they couldn't really achieve large numbers. But we're finding that these animals are much more flexible than we gave them credit for and they're adjusting to our cities.

"That's going to put the burden back on us: Are we going to be able to adjust to them living with us or are we not going to be able to coexist?"

Gehrt described the research in a talk Friday (10/5) at EcoSummit 2012, an international conference held in Columbus.

The tricky part of any government-sponsored eradication program is the question of cost versus benefit. When the study began in 2000, several communities around Chicago trapped and killed coyotes found within their boundaries. Gehrt estimates that only 10 percent of communities have such programs in place now.

"I think those programs will go away, too. It costs money, and it upsets some residents who want coyotes living there. So there is conflict, cost and lack of effectiveness. We have great data in areas where removal

was done. You pull them out, and literally within just a few weeks, new coyotes moved in and set up a new pack and began reproducing right away," he said.

Gehrt noted that the encroachment goes both ways. Humans have not been a predominantly urban species for all that long worldwide, though about 80 percent of U.S. residents live in cities. One reason humans flocked to cities was to get away from the risks associated with living near wild carnivores.

"The funny thing is that now we have more people on earth and bigger cities than ever, we also now have carnivores moving into cities. It's a two-way street: We're expanding cities into their territories and they're also coming in," said Gehrt, who also holds appointments with the Ohio Agricultural Research and Development Center and Ohio State University Extension.

In comparing his findings about coyote survival in cities to research by another group on those living in rural areas, Gehrt has found that the urban coyote pup survival rate is five times higher than the rate for rural pups. In both environments, humans are the coyotes' primary predator.

"We are the only thing slowing their population down, either with our cars, which is the No. 1 cause of death for coyotes, or when we remove them through hunting or control programs," Gehrt said. "None of the diseases they're exposed to really impact them at all."

Coyotes are exposed to disease because they dine on rodents, rabbits and geese, providing a benefit by reducing human exposure to diseases carried by those species and removing animals otherwise considered a nuisance. They will also eat bugs and deer fawn, another potential benefit because human encounters with deer can be deadly, and will gorge on fruit if given the opportunity. They also eat the occasional cat

or small dog.

Opportunity for food appears to abound in urban areas, which is why coyote communities can thrive in such small, contained spaces. Once they settle, resident coyotes don't move much. Transient animals, typically youngsters that have recently left their parents' pack, will try to find a vacancy in an existing territory or find a new area to start their own pack.

"They're so adaptable and so opportunistic," Gehrt said. "In adjusting to urban life, they may change dietary items and habitat use, and become nocturnal, whereas in the country they're active day and night. But with other things, they don't change at all. Here, they're able to maintain their social structure, territorialism, packs and mating system, even in the face of all these challenges of trying to live among 9 million people."

Gehrt recently published a paper describing how coyotes in Chicago have remained monogamous in the midst of adjusting to their new, urban way of life.

He is expanding his research to a few other sites, including Cleveland, Ohio, and in Nova Scotia, where coyotes show more aggressiveness toward humans.

However, under typical circumstances, Gehrt said coyotes are not prone to attack humans. For those people who see a coyote and do feel threatened, waving one's arms and yelling, or even throwing a rock in its direction, will very likely scare the animal away.

"You're doing them a favor. They show a healthy respect and fear of people and that's the way it should be."

Provided by The Ohio State University

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