

What Do Urban Coyotes Really Eat?

Using coyote fecal samples collected in New York City parks and green areas, a team of researchers conducted a DNA analysis to answer a question that has puzzled many - what urban coyotes eat. What they found will surprise you - it wasn't what most people would expect.

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STORY AT-A-GLANCE

- Coyotes live in every U.S. state, and in nearly every U.S. city, from rural to major metropolitan areas like New York City
- Using fecal samples collected in New York City parks and other areas from 2010 to 2017, researchers conducted a DNA analysis to reveal dietary trends in urban coyotes
- While nonurban coyotes tended to feast more often on white-tailed deer, both urban and nonurban coyotes preyed upon raccoons regularly
- Only urban coyotes consumed cats, but even among the city animals, this is an unlikely dinner — less than 5% of the urban scat tested contained it
- As for human food, 64% of urban coyote feces contained it, as did 55% of nonurban coyote feces
- Urban coyotes aren't relying on human food to get by, preferring to stick to their natural diet when available

Coyotes live in every U.S. state, and in nearly every U.S. city, from rural to major metropolitan areas like New York City. What coyotes eat when living in urban environments is a topic of great interest. Urban areas contain novel ecosystems with unique challenges, like habitat degradation and fragmentation and availability of human food, which can affect wildlife populations.¹

Coyotes were first documented to be living in New York City — the most densely populated city in the U.S. — in 1994. Breeding groups were documented by 2016, and it's now estimated that there are 20 to 30 coyotes that call New York City home.²

Although the large human population increases the likelihood that NYC coyotes are consuming anthropogenic foods (those that come from humans), the city is also enriched with over 30,000 acres of green spaces, where coyotes could find natural prey.

City Coyotes Eat Mostly Native Prey

"Knowing what the coyotes are eating can help inform management practices by city officials," said Carol Henger, an urban ecologist at Fordham University.³ She and a team of researchers teamed up with the Gotham Coyote Project to get to the bottom of the mystery. Using fecal samples collected in New York City parks and other areas from 2010 to 2017, the team conducted a DNA analysis to reveal dietary trends in the animals. Henger said:⁴

"What's unique about our study is that by sequencing the DNA of coyote scat we were able to detect diet items that might not be detected through a visual analysis of the scat samples, such as specific human food items. There are no wild cows, chickens, or banana trees in New York City parks, so if we got a DNA hit on something like that, we knew that coyote had eaten from an anthropogenic source."

The study revealed that urban and nonurban coyotes eat a variety of plants, animals and human food, in keeping with their opportunistic feeding behavior; in general, coyotes will eat whatever food is available. While nonurban coyotes tended to feast more often on white-tailed deer, both urban and nonurban coyotes preyed upon raccoons regularly.⁵

Chicken was also found in scat from coyotes living in urban and nonurban areas. Only urban coyotes consumed cats, but even among the city animals, this is an unlikely dinner — less than 5% of the urban scat tested contained it.⁶

As for human food, 64% of urban coyote feces contained it, as did 55% of nonurban coyote feces. "I thought we would find more human-associated items, just because it's so easy to find them in the trash bins and along the ground," Henger told The New York Times. "But, you know, I don't think they prefer the human foods. I think they're finding enough natural food items that they're not really wanting to eat human food."⁷

Coyotes Help Provide Healthy Ecosystems

In addition to small mammals, plants and insects, New York City coyotes also eat the occasional salamander.⁸ But raccoons are an ongoing favorite. According to Henger:⁹

"Raccoons were the most prevalent mammal detected in the New York City coyote diet. With no other natural predators to limit their populations, coyotes provide an important ecological service."

Raccoons can carry diseases such as rabies and canine distemper that can be transmitted to humans and pets. By preying on raccoons, coyotes are helping to provide healthy ecosystems."

While rats are plentiful in New York City, they were rarely eaten by coyotes, turning up in only 5% of the scat. "I think it's because rats are usually where we are," Henger told The New York Times. "And coyotes don't want to be where the people are."¹⁰

The study also revealed that urban coyotes aren't relying on human food to get by, similar to a previous study on coyotes living in Chicago. The Chicago study found human-associated food items were only found in significant amounts in scat from the most developed site. Even then, it was only found in 2% to 25% of the scat samples, depending on season.¹¹ As noted by Henger regarding the NYC coyotes:¹²

"Our results show that coyotes are not reliant on human food to survive in New York City. Instead, coyotes are eating natural food items that are available in the city parks. This study highlights the importance of creating and maintaining green spaces where wildlife can thrive."

While development of recreational green spaces in cities often receives attention, the study pointed out that designating undeveloped green spaces in urban environments is "vital ecologically."¹³ As coyotes inhabit more densely populated areas, interactions with people are becoming more common. While cats and dogs aren't coyotes' typical prey, they can go after domestic pets if given the opportunity.

If you see a coyote, do not run from it. Instead, make as much noise as possible — shout, shake a can of rocks or blow an air horn (I keep a mini air horn on my patio for this purpose) — and wave your arms. The coyote will likely run away, leaving your pet unharmed.

Sources and References

^{1, 5, 6, 13} [PeerJ September 21, 2022](#)

^{2, 7, 8, 10} [The New York Times October 3, 2022](#)

^{3, 4, 9, 12} [Phys.org September 28, 2022](#)

¹¹ [BioOne Complete July 1, 2007](#)
