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## **PRESS RELEASE**

# **New York City coyotes do not need to rely on human food**



**Photo credit: Ivan Kuraev**

Researchers in New York City (NYC) have analyzed the DNA of urban coyotes and discovered that the coyotes eat a variety of native prey species and supplemented with human-sourced food items.

“Urban areas have lots of people and thus greater availability of anthropogenic foods, says Dr. Carol Henger, lead author on a paper detailing the NYC coyote diet.” Since urban coyote research began in the 1980’s and 1990’s, there has been considerable interest in the foods they are eating, specifically whether they are relying on human foods. “Knowing what the coyotes are eating can help inform management practices by city officials.”

Coyotes are opportunistic omnivores and will take advantage of whatever food is available. Previous coyote research performed in cities such as Chicago and Las Angeles have found that coyotes eat mainly “natural” food such as rodents and rabbits, but city coyotes still tend to eat more human-sourced food items than country coyotes.

To find out what the NYC coyotes are eating, Henger and her team analyzed the DNA from coyote fecal (scat) samples collected in parks and other green spaces throughout the city. The researchers used fecal samples collected from 2010-2017 by members of the Gotham Coyote Project ([gothamcoyote.org](http://gothamcoyote.org)), a group of scientists and educators who are interested in learning about coyote ecology throughout NYC and the region. They found that the urban coyotes consumed a variety of mammalian prey such as raccoons, rabbits, deer, and voles. They also ate birds, insects, plants, as well as human foods such as chicken, beef, and pork.

“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 NYC parks so if we got a DNA hit on something like that, we knew that coyote had eaten from an anthropogenic source.”

The researchers also compared the NYC coyote diet to that of coyotes living in non-urban areas north of NYC. The main differences in diet between the urban and non-urban coyotes were that raccoons and deer made up a bigger proportion of the non-urban coyote diet than the urban coyote diet. The two groups of coyotes ate similar proportions of human food (~60% of scats contained at least one human food item), but the urban coyotes ate a wider variety, including rice, goat, banana, and guineafowl.

“Raccoons were the most prevalent mammal detected in the New York City coyote diet,” says Henger. “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.”

“Our results show that coyotes are not reliant on human food to survive in New York City,” said Henger. “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.”

The paper, “DNA metabarcoding reveals that coyotes in New York City consume wide variety of native prey species and human food,” is published in *PeerJ*. The co-authors include Emily Hargous and Jason Munshi-South from Fordham University, Chris Nagy from the Mianus River Gorge Preserve, Konstantinos Krampis from Hunter College, and Mark Weckel, Neil Duncan, Claudia Wultsch, and Linda Gormezano from the American Museum of Natural History. “We are delighted to have our paper published in *PeerJ*,” said Henger. “The publication process was fast and easy, and the reviewers increased the quality of the paper.”

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