



COYOTE MANAGEMENT & COEXISTENCE PLAN

Prepared by Chicago Animal Care and Control



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Chicago Animal Care and Control (CACC) provides assistance when wildlife is considered to be a threat to safety and/or a nuisance. CACC receives approximately 450 service requests annually involving coyotes. Requests for service involving coyotes must be handled in accordance with Illinois Law and in line with best practices. CACC partners with wildlife rehabilitation groups that provide assistance when relocating wildlife and CACC provides education to the public on how to live with wildlife. This plan outlines feasible strategies and tactics to prevent potential coyote encounters in the City of Chicago. Coyotes in Illinois are not considered to be a public health concern and there have been no reported coyote attacks on humans in Illinois in the last 30 years. As populations continue to grow, however, the possibility for human-coyote conflicts continues to increase.

STATE AND LOCAL GOVERNING LAW, CACC POLICIES AND PROCEDURES

In Illinois, coyotes are protected as a furbearer. Coyotes in urban areas that become problems may be removed if a nuisance wildlife permit is issued by the Illinois Department of Natural Resources. CACC annually renews this permit.

Pursuant to (520 ILCS 5/2.30) Coyotes may be hunted year-round except during firearm deer season. Only licensed deer hunters may take coyotes. They may be trapped from November through January. Illinois Department of Natural Resources biologists monitor the number of coyotes in Illinois to ensure that hunting and trapping do not negatively impact the population. For full hunting and trapping regulations, visit the IDNR's [Hunting Regulations, Licenses, Permits and Applications](#) site.

MCC 7-12-365 requires that the executive director of CACC maintains a coyote management program and response guide based on research and best practices, using public education, followed by humane hazing, as primary management methods.

The executive director or his/her designees professionally assess the geography to determine how humane hazing can be applied in specific instances. The Department shall use any and all tools available to remove the coyote only if a coyote becomes a threat to public safety.

The executive director shall provide a progress report to the City Council Committee on Health and Environmental Protection on or before October 15th of each year in the event there is any new information regarding coyote management efforts during that year.

Basic Overview

Coyotes, wolves, foxes and domestic dogs belong to the Canidea family. Most coyotes weigh approximately 30-35 pounds, although their long legs and thick fur make them appear larger. A coyote's diet is usually composed of small rodents, fruit, and birds. Some coyotes will prey on larger animals, such as deer, or other available food sources depending on available food sources. In an urban setting, a coyote typically lives to about the age of 3, although in captivity their lifespan is much longer. The most common cause of death for urban coyotes is from motor vehicle accidents.

Ecology of Urban Coyotes

Coyotes are now found in all states in the U.S. except Hawaii and have become well established in nearly every ecosystem. It is important to keep in mind that coyotes have been interacting with and adapting to people since the first development expanded across North America. Due to their intelligence and adaptability, in addition to extensive urbanization and the subsequent decline of larger predators, coyotes have successfully expanded their range across Chicago. Coyotes tend to prefer more open areas and spaces with natural shielding from human activity. It is not rare for an individual or group to settle in urban parks offering greenspace and preferred habitat. Research is not conclusive as to the cause of coyote's presence in urban spaces. Their success in urban regions is either due to an overall benefit to situating near high concentrations of people, or a response to urban sprawl and increased habitat fragmentation subsequently causing natural habitat loss [Gehrt, 2011].

Social Tendencies

Coyote populations contain packs that inhabit select territories across a landscape and solitary Individuals that span across overlapping territories. Coyote home ranges vary depending on the environment from about 2-5 square miles and, in the city, about 7-8 square miles. Group sizes and pack characteristics can vary depending on environmental contexts and food supply. Generally, packs are made up of an alpha male and female responsible for most of the breeding and several other individuals that defend the territory. Normally, each pack is a territorial family group that varies in number from 3 to 10 individuals. Wandering individuals usually occur in cases where coyotes are searching for mates or unoccupied spaces.

Behavior Patterns

Urban coyotes tend to be highly adaptive and capable of developing altered characteristics and behavior traits in response to urban environments. Their apprehension toward people and highly residential areas leads to an ability to navigate successfully through urban networks, almost completely undetected. Urban coyotes can adapt nocturnal behavior traits in response to the urban landscape, making them further undetectable to people [Gehrt 2011]. Coyotes are naturally very skittish and afraid of humans, and are rarely seen in densely populated areas. Often, it's only an evening chorus or group howling and yipping that alerts us to the presence of this wild canid in our neighborhoods.

Generalizing coyote behavior is challenging due to the potential for large trait variations between urban and rural coyotes. While many coyotes tend to remain elusive and fearful, some individuals may exhibit more bold characteristics. These coyotes are more inclined to approach people, and may cause a threat to residents.

Have Coyotes Increased in Chicago?

The early rise of U.S. metropolitan areas alienated coyote populations; however, they began reintroducing themselves in the late 20th century, beginning in California and moving eastward. The urban presence of coyotes is a nationwide phenomenon, as is the case in Chicago [Gehrt 2011]. Coyotes are encroaching on human developments across the U.S, posing as a species adapting especially well to densely populated urban spaces. Dr. Stanley Gehrt, the Principal Investigator of the Cook County Coyote Project and Chair of the Center for Wildlife Research at the Max McGraw Wildlife Foundation, estimated the population of Chicago's coyotes at about 2,000 in a 2014 interview with National Geographic. Regarding Chicago's coyotes, researchers predict the continuation of successful population growth and prolonged rates of survival [Anchor, Brown, & Gehrt, 2011]. Coyotes have no existing predators in urban spaces and adapt around human populations.

Threat to Humans

There are no confirmed cases of attacks in the Chicago metropolitan area. More broadly, across America the average is three to five incidents, usually caused by human feeding. There have been nearly 150 documented attacks in North America in entirety, mostly in California and Arizona, and only two fatalities [Cook County Coyote Project]. According to White and Gehrt (2009) Coyote attacks can be categorized as either predatory (aggressive pursuit of an individual), investigative (attack on a resting, unthreatening person as a potential prey source), rabid (coyote tests positive for rabies), pet-related, or defensive (to protect itself, den or pups). Their research also shows that majority of attacks are predatory, there is a correlation between increase of overall attacks and coyote pup-rearing seasons, and one-third of attacks involved feeding.

Attacks on Pets

Although there are no documented human attacks, there have been growing numbers of attacks on household pets in the last 20 years. Smaller breeds of dogs or cats are more likely to be victims of coyote attacks. Coyotes may prey on dogs or cats as food sources or to eliminate perceived competition. Encouraging people to keep cats inside and leash dogs will lessen the likelihood of coyote-pet conflicts.

Coyote Attractants in Urban Areas

Coyotes are drawn to urban and suburban areas for the following reasons:

1. **Food.** Urban areas provide a bounty of natural food choices for coyotes, which primarily eat rodents such as rodents. However, coyotes can be further attracted into urban neighborhoods by human-associated food such as pet food, unsecured compost or trash, and fallen fruit in yards. Intentional and unintentional feeding can lead coyotes to associate humans with sources of food, which can result in negative interactions among coyotes, people and pets. To reduce food attractants in urban and urban areas:
 - a. Never hand-feed or otherwise deliberately feed a coyote.
 - b. Avoid feeding pets outside. Remove sources of pet food and water. If feeding pets outside is necessary, remove the bowl and any leftover food promptly.
 - c. Never compost any meat or dairy (unless the compost is fully secured).

- d. Maintain good housekeeping, such as regularly raking areas around bird feeders, to help discourage coyote activity near residences.
- e. Remove fallen fruit from the ground.
- f. Keep trash in high-quality containers with tight-fitting lids. Only place the cans curbside the morning of collection. If you leave out overnight, trash cans are more likely to be tipped over and broken into.
- g. Bag especially attractive food wastes such as meat scraps or leftover pet food. If it is several days before garbage will be picked up, freeze temporarily or take to a dumpster or other secure storage container.

2. **Water.** Urban areas provide a year-round supply of water in the form of storm water impoundments and channels, artificial lakes, irrigation, pet water dishes, etc., which support both coyotes and their prey.

- In dry conditions, water can be as alluring as food, so remove water bowls set outside for pets and make watering cans unavailable.

3. **Access to shelter.** Parks, open spaces, golf courses, buildings, sheds, decks, etc., increase the amount and variability of cover for coyotes. They allow coyotes to safely and easily remain close to people, pets, homes and businesses without detection.

- In the spring, when coyotes give birth and begin to raise young, they concentrate their activities around dens or burrows in which their young are sheltered. Coyotes may take advantage of available spaces under sheds or decks for use as a den, bringing them into close contact with people and pets.

4. **Unattended Pets.** Pets are a normal part of an urban landscape. Within their territory, coyotes may consider pets as potential prey or potential competitors.

- a. Free-roaming pets, cats and small dogs, may attract coyotes into neighborhoods. The best way to minimize risk to pets is to not leave them outside.
- b. Cats. Coyotes primarily eat small mammals such as mice and rats, but will also prey on slightly larger mammals such as rabbits and groundhogs. Approximately the same size as a groundhog or rabbit, free-roaming outdoor cats may also be seen as eligible prey items by coyotes. It is important to note that attacks on cats are normal coyote behavior and do not indicate a danger for people. The only way to protect cats from coyotes (and the other dangers of outdoor life such as cars, disease, dogs and other wildlife) is to keep cats indoors.

Reporting, Monitoring, and Collecting Data

Reporting, monitoring and data collection are critical components. This is best accomplished with input from both residents. The purpose of monitoring human-coyote interactions is to document where coyotes are frequently seen, to count how many coyotes are within an area and to identify human-coyote conflict hotspots. Gathering specific data on incidents will allow for targeting of educational campaigns and conflict mitigation efforts, as well as the ability to measure success in reducing conflicts over time.

To report coyote sightings, residents must call 311 and make a report. The resident must provide contact information, including the date, time, name, address and phone number of the individuals making the report as well as specific information about the incident to include the most current location of the coyote.

Human-Coyote Conflict Definitions

The following definitions will be used for the process of categorizing human-coyote conflicts and coyote-pet conflicts:

COEXISTENCE:

Humans and coyotes exist together. Humans take an active role in helping coyotes in their community stay wild by removing attractants, taking responsibility for pet safety, hazing coyotes in their neighborhood and learning about coyote ecology and behavior.

OBSERVATION:

The act of noticing signs of a coyote(s), such as tracks, scat, or vocalizations, but without visual observation of the coyote(s).

SIGHTING:

A visual observation of a coyote(s). A sighting may occur at any time of the day or night.

ENCOUNTER:

A direct meeting that is between human and coyote(s) with no physical contact and that is without incident.

INCIDENT:

A conflict between a human and a coyote where the coyote exhibits any of the following behaviors: growling, baring teeth, lunging or making physical contact with the person. A human is not bitten.

HUMAN ATTACK:

A human is bitten by a coyote(s).

Provoked: An attack where the involved human encourages the coyote to engage. Examples include a human hand-feeding a coyote, approaching a coyote with pups or intervening in a coyote attack on a pet.

Unprovoked: An attack where the involved human does not encourage the coyote to engage.

PET ATTACK:

Coyote(s) kills or injures a domestic pet. *Attended:* Pet is on a leash less than six feet in length or is in the presence of a person less than six feet away.

Coyote Management Approaches

A. Education and Outreach

A critical element of a successful coyote management plan is the education and awareness of residents. Education is the key to having residents make appropriate decisions regarding their safety and managing their property and pets. This involves decreasing food attractants, taking precautions with pets and creating tolerance of normal coyote behavior.

To foster true coexistence between coyotes and humans, it is important to inform people and provide them with the facts about urban coyotes and the steps they can take to reduce the potential for negative interactions. Residents must understand the role they play in shaping the behavior of local coyote populations. Unfortunately, some individuals may become enamored by the presence of coyotes and intentionally feed them as a means of attracting the animals. This behavior should be strictly condemned in community led educational programs and hand-outs. People should also be encouraged to avoid instances of unintentional feeding, such as leaving trash out for extended periods of time. In addition to limiting access to food, residents should also be taught how to behave in the case of a human-coyote interaction. Educational programs are necessary in teaching residents about coyote behavior and addressing people's fear.

An educational campaign should focus on how residents can coexist with coyotes successfully. Educational outreach opportunities include:

1. **Educational materials.** Brochures, E-Newsletters, informational postcards mailed or hand-delivered to specific neighborhoods with a high number of coyote sightings and interactions, detailed information and appropriate links made available on the City of Chicago website.
2. **Community outreach.** Composed of CACC employees participating in ward meetings and other scheduled speaking events.

B. Hazing

Generally, coyotes are reclusive animals who avoid human contact. Coyotes in urban and suburban environments, however, may learn that neighborhoods provide easy sources of human-associated food while presenting few real threats.

Hazing is an activity or series of activities that are conducted with the intention of changing behavior of habituated coyotes and/or to re-instill a fear of people in the local coyote population. Hazing techniques include generating loud noises (air horn, playing loud music), spraying water or products with a human odor (ammonia), shining bright lights, throwing objects, shouting, etc. Hazing can help maintain a coyote's fear of humans and deter them from neighborhood spaces such as backyards, greenbelts and play spaces. Hazing is not one hundred percent proven to alter the behavior of coyotes, and may not work in a case where an individual has become especially comfortable around people and residential areas. If undertaken by many community members, however, it is possible that the behavior will promote distance between coyotes and humans.

A hazing program encourages the use of harassing actions without employing weapons or causing bodily harm to the coyote. The more often an individual animal is hazed, the more potentially effective hazing is in changing coyote behavior. Being highly intelligent animals, coyotes who are hazed quickly learn to avoid neighborhoods, people and pets. The goals of hazing are to:

- Reverse the habituation of coyotes to people, teaching them to once again fear and avoid humans
- Discourage coyotes from entering public areas such as parks, playgrounds and yards when people are present
- Discourage coyotes from approaching people and pets
- Empower residents by giving them tools to use when they encounter a coyote, thereby reducing their fear of coyotes
- Increase awareness about coyote behavior among residents and involve the community in coyote management efforts

Basic hazing: Consists of directly facing the coyote and being “big and loud” by waving your arms over your head, making loud noises or squirting the coyote with water until the coyote(s) chooses to leave. Using a variety of different hazing tools is critical because coyotes can become desensitized to the continued use of just one technique, sound or action (see Appendix B). Basic hazing can be performed by anyone and includes the following techniques:

- Yelling and waving your arms while approaching the coyote
- Making loud noises with whistles, air horns, megaphones, soda cans filled with pennies, pots and pans
- Throwing projectiles such as sticks, small rocks, cans, tennis balls or rubber balls at the direction of the coyote
- Squirting water from a hose, water gun or spray bottle (with vinegar water)

High-intensity hazing: Consists of approaching the animal quickly and aggressively, throwing projectiles, paint balls, pepper balls, sling shots, clay pellets or pepper spray at the coyote. High-intensity hazing should only be carried out by trained professionals such as animal control and police officers. High-intensity hazing should be used in specific areas and only in response to more egregious incidents.

C. Physical Removal

Physical removal should only be considered in extreme cases, when a coyote is a threat to the safety of the residents. Targeted removal is a more promising approach than large-scale removal of local coyote populations. Coyotes are an extremely resilient species, regardless of human attempts to manage them. Moreover, their inclusion in the Illinois Wildlife Code means that they are protected and can only be harmed or removed if there is proof of imminent danger to a human’s life or property and, since coyotes tend to be elusive creatures, these cases are limited [Illinois General Assembly]. When it is decided that a particular coyote poses a pressing threat to the safety of residents, Chicago Animal Care and Control will use trapping and/or chemical immobilization to safely capture and remove the threatening coyote and work with wildlife rehabilitation partners.

Local Ordinances

In addition to the suggested responses below, the following community-wide ordinances may be helpful:

Leash Law. Enforcing leash laws and monetary fines for off-leash dogs can help address problematic behavior that could lead to coyote-pet conflicts. Residents should be instructed to keep pets on a leash six feet long or less.

Anti-Feeding Ordinance. Banning the feeding of wildlife (exceptions may be made for bird feeders) and establishing a monetary fine may be helpful in addressing problematic feeding behavior that can lead to the habituation of coyotes.

Further Considerations

Partnerships and Research

To monitor Chicago's coyote population, Chicago is partnering with Flint Creek Wildlife Rehabilitation (Barrington, IL) and Cook County Animal Control. The City will use information from researchers to guide educational efforts. Researchers can alert the City when they encounter areas of high coyote presence and inform CACC if there is an animal under their purview exhibiting problematic tendencies. The group tracks a number of coyotes around the City and is a major resource to Chicago. Their research is a necessary component moving forward with managing coyote populations and in the decision-making process addressing removal or relocation.

Department Coordination

Chicago Animal Care and Control will coordinate and exchange communication with other city departments (Streets and Sanitation, Chicago Police Department, Chicago Fire Department), sister agencies (Chicago Park District, Chicago Public Schools) and Aldermanic Offices for effective and productive coyote management efforts.

Habitat Modification and Research Initiatives

In areas where coyotes are most likely to traverse, modifications to the environment may help steer them away from humans. Regularly mowing the areas alongside trails may deter coyotes from these spaces. If there is little space to seek shelter in a natural space, coyotes are less likely of convening. More broadly, natural environments outside of cities are shrinking and few habitat corridors exist to provide safe movement for many species of animal. Improving connectivity between animal habitats is crucial in fostering movement away from city centers. Roadways directly intersect environments and are major causes of increasing habitat fragmentation. Infrastructure changes such as under-passages and over-passages give species platforms to move between habitats and address fragmentation; fencing can also guide animals away from heavily populated areas. These structural changes simultaneously alleviate habitat fragmentation and allow animals to productively move through space without the potential for negative human interaction.

Appendix A:

COYOTE YARD AUDIT CHECKLIST

(For municipal or homeowner use)

	OK	FIX	Ways to Mitigate
FOOD			NEVER hand-feed or intentionally feed a coyote!
Pet Food			Never feed pets outdoors; store all pet food securely indoors.
Water Sources			Remove water attractants (such as pet water bowls) in dry climates.
Bird Feeders			Remove bird feeders or clean fallen seed to reduce the presence of small mammals that coyotes prefer to eat.
Fallen Fruit			Clean up fallen fruit around trees.
Compost			Do not include meat or dairy among compost contents unless fully enclosed.
BBQ Grills			Clean up food around barbeque grills after each use.
Trash			Secure all trash containers with locking lids and place curbside the morning of trash pickup. Periodically clean cans to reduce residual odors.
LANDSCAPING			Trim vegetation to reduce hiding places and potential denning sites.
Structures/Outbuildings			Restrict access under decks and sheds, around woodpiles, or any other structure that can provide cover or denning sites for coyotes or their prey.
FENCING			Enclose property with an 8-foot fence (or a 6-foot fence with an additional extension or roller-top) to deter coyotes. Ensure that there are no gaps and that the bottom of the fence extends underground 6 inches or is fitted with a mesh apron to deter coyotes from digging underneath.
PETS			Never leave pets unattended outside.
			Never allow pets to “play” with coyotes.
			Fully enclose outdoor pet kennels.
			Walk pets on a leash no longer than 6 feet in length.

We encourage you to take steps to eliminate attractants on your property in order to minimize conflicts with coyotes. We also urge you to share this information with friends and neighbors because minimizing conflicts is most effective when the entire neighborhood works together.

Resources

- Cook County Coyote Project, 2017 <https://urbancoyoteresearch.com/>
- Final Report: Assessment of Human-Coyote Conflicts: City and County of Broomfield, Colorado <https://www.broomfield.org/DocumentCenter/View/1282>
- Urban Coyote Ecology and Management, Gehrt <https://urbancoyoteresearch.com/sites/default/files/UrbanCoyoteManagementPDF.pdf>

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