



**Successful coexistence with coyotes requires an understanding of how coyotes survive, as well as an understanding of how humans can shape coyote behavior.**

**Program Goals**

- Gain a basic understanding of coyote natural history and behavior
- Learn essential predator and coexistence vocabulary
- Assess a variety of coyote sightings, encounters and incidents for normal, abnormal, and unacceptable coyote behavior
- Understand the human role in shaping urban coyote behavior
- Provide access to additional information and resources

**Program Section 1**

**Primer on coyote biology and behavior: Coyote Myth vs. Fact**

*“Our limited understanding of how coyotes succeed in urban landscapes hampers management of this animal. Even knowledge of their basic ecology is incomplete.”* (Gehrt 2006)

*“How can you explain the coyote’s success? I guess if you wanted to use one word, it’d be plasticity.”* Eric Gese, predator ecologist, Utah State University

**The coyotes were here first**

Fact and Myth. As humans have settled and altered habitats through extirpation of wolves, deforestation, and creating inviting suburban landscapes coyotes have experienced a range expansion, which extends across the entire United States, up into Canada and Alaska; and down into the Yucatan, Belize, and Panama. Food and habitat resources found in suburban landscapes often support more coyotes than the original landscape could.

**Coyotes are carnivores**

Myth. Dentition classifies them as carnivore, but scat and behavior indicates scavenger, omnivore, or opportunistic feeder; the ultimate flexitarian.

*“Although coyotes are predators, they are also opportunistic and shift their diets to take advantage of the most available prey.”* (Gehrt 2006)

Scientific analysis of scats indicates:

**(1940 Study)**

- Rabbits and Rodents: 77.4 %
- Carrion: 25.5 %
- Livestock: 21.9%
- Wild birds: 15%
- Deer 7.9%
- Fruits 6.7%

70.3% of diet beneficial to humans  
 11.5 % harmful (Murie, 1940)  
 Human food sources present 1.9% to 25% of the time.  
 Domestic cat may be present in up to 13.6% (Wirtz *et al* 1982)

**(2006 urban Chicago)**

- Small rodents 42%
  - White-tailed deer 22%
  - Fruit 23%
  - Cottontail 18%
  - Birds 13%
  - Raccoon 8%
  - Grass 6%
  - Invertebrates 4%
  - Human-associated 2%
  - Domestic cat 1%
  - Muskrat 1%
  - Unk 1%
- ~1400 scats from urban Chicago coyotes.

### **Coyotes live and hunt in packs**

Myth. Hunting style depends on prey, habitat, and time of year. Most research shows that coyotes are primarily solitary hunters, but may hunt cooperatively with family members, particularly in winter. They may team up to take large prey.

Lifestyle depends on age and dominance. May live a solitary and transient lifestyle, may be a monogamous pair, or in family groups dominated by alpha male and female (alpha pair with 1-5 subordinates that are relatives) In some urban areas, coyotes may defend territories as groups with 5-6 adults and their offspring.

### **Coyotes never attack humans**

Myth. It is extremely rare, but coyotes have been known to bite humans. Only recorded fatality is a three-year old in 1981. In most cases, coyotes that bite humans have been fed by humans and are habituated. It is important to note that in the US, an average of 2.2 people per year are killed by vending machines.

### **I should be nice to the coyote when it is in my neighborhood**

Myth. You should haze a coyote that is in your yard or roaming the streets of your neighborhood. Hazing includes: bright lights, banging on pots and pans, speaking forcefully, tossing rocks, etc. A coyote should not feel welcome in neighborhoods.

### **Coyotes are smarter than my pet dog or cat**

Fact. Years of wild living trump your pet's breeding for looks and demeanor. No matter how smart you think your dog or cat is, they are no match for a savvy suburban coyote.

### **Coyotes are naturally afraid of humans**

Fact. A wild coyote possesses a natural fear of humans. A coyote that has been fed or welcomed into a neighborhood or yard will lose its fear of humans. A coyote that is not afraid of humans is *habituated*.

### **Coyotes are nocturnal**

Myth. Coyotes are crepuscular and diurnal in the absence of humans, in areas where there are humans and coyotes are harassed, activity changes to nocturnal (Kitchen et al, 2000)

### **We can get rid of the coyotes**

Myth.

- "Following removals, populations return to pre-control levels, which are largely controlled by food resources."(Knowlton *et al.* (1999)
- "While trapping programs allow public officials to tell the public that they are doing something about the situation, their effectiveness is questionable because of the coyote's ability to rebound and recolonize vacant territories." (Knowlton *et al.* 1999; Sacks *et al.* 1999; Gompfer 2002)
- "To suppress a coyote population over the long-term, more than 70% of the coyotes would need to be removed annually." (Connolly and Longhurst 1975)
- "Lethal removal may stimulate improved reproductive success and pup survival in the remaining coyote population." (Connolly and Longhurst 1975, Davison 190, Sterling et al. 1983, Crabtree and Sheldon 1999)

### **It is easy to remove problem coyotes from a neighborhood.**

Myth.

- Relocation: By permit only. CDOW does not authorize relocations of predators in the metro area because it is simply moving a problem.
- Trapping: A 30-day permit for trapping can be obtained from county health officials in cases where there is a documented threat to HUMAN health and safety.

- Shooting: Most municipalities do not allow the discharge of firearms in neighborhoods. USDA Wildlife Services can be hired to remove coyotes using firearms. Current price tag is \$106,000/year. (In 2001, the cost of using this service averaged out to about \$400 per coyote removed)

**The coyote I see looking in my backyard from the bike path lives in the den I see nearby at the golf course.**

Myth. Coyote home ranges vary greatly, depending on habitat, social status, and food resources. In general, home ranges average 3 – 25 miles, but the details are noteworthy:

- Wild male coyotes have a home range of 8 to 16 square miles, females have 3.1 – 3.9 square miles (Gipson and Sealander 1972, Chesness and Bremicker 1974)
- Coyotes in family groups have smaller home ranges (3 sq. miles)
- Solitary coyotes have larger ranges (25 sq. miles) (Gehrt 2006)
- Suburban coyotes occupy a home range of .25 - .56 square miles (Shargo, 1988)

*“A three-legged male had a home range extending over 40 square miles and 3 municipalities. Until this study, few people would have suggested the conflicts extending over three cities could be the work of one coyote.”* (Gehrt 2004)

**Coyotes are passive creatures**

Myth. Coyotes defend territories and food resources from each other and from other species. They do not tolerate competition from mesocarnivores such as foxes, raccoons, skunks, feral cats, and domestic pets.

**In general, people love coyotes**

Myth. “Coyotes are just a little too much like the big, bad, wolf. Most people are perfectly happy to have them anywhere but in their own backyards.” Robbie Fearn, Cape Wildlife Center

**Program Section 2: Essential coexistence vocabulary**

“Inconsistent and exaggerated reports of coyote attacks can lead to heightened public fears.” (Fox, 2006)

Managers need accurate definitions of dangerous coyote behavior and clear guidelines for when such behavior warrants direct intervention.

**Hazing/Aversive Conditioning:** Using unpleasant sounds, objects, etc. to discourage a behavior.

**Encroachment:** Trespass or entry into another’s property without permission.

**Habituation:** A learned behavior in which an animal exhibits a lessen response with repetition of stimulus. The process of getting an animal used to a situation that it normally avoids.

**Observation:** The act of noticing or taking note of tracks, scat, or vocalizations.

**Sighting:** A visual observation of a coyote(s).

**Encounter:** An unexpected direct meeting between a human and a coyote that is without incident.

**Incident:** A conflict between a human and a coyote where a coyote exhibited behavior (growling, baring teeth, and/or lunging) creating an unsafe situation for the human.

**Attack:** A conflict that involves physical contact between a coyote and a human. A human is bodily injured by a coyote.

**Pet-injury:** A domestic pet is injured by a coyote.

**Pet-loss:** A domestic pet is killed by a coyote.

**Provoked:** When a person or pet enters an animal’s personal space or purposefully tries to touch or injure, or lures (intentionally or not) with food or other attractant.

**Unprovoked:** Person did not enter an animal's personal space, try to touch, injure, or use an attractant.

**Program Section 3: Learning to tell the difference between normal coyote behavior and nuisance coyote behavior is essential. Using proper vocabulary to describe interactions is essential. Using proper definitions, discuss and evaluate the following scenarios:**

"There were packs [of coyotes] running through the neighborhood at night howling up a storm."

"I was sitting at the kitchen table one morning drinking coffee and two coyotes looked into my yard—in broad daylight."

"A coyote ran through the parking area in broad daylight with a cat in its mouth."

"I was walking my small dog on a flexi-leash when a coyote popped out of the cattails about 8 feet ahead of us. It stared us for a moment with its tail down, then it ran away along the edge of the cattails."

"A coyote followed me and my small dog along the High Line Canal."

"I let my 21-pound dog out in the backyard—which backs up to a golf course—at about 11 p.m. A coyote jumped the fence, attacked, and killed my dog."

"I was with my toddler at Jewell Wetland when I noticed a coyote was watching me and my children."

"Those peanut butter and jelly sandwiches are for the stray cats."

"A coyote tugged at a child's jacket when he approached the coyote, hand outstretched."

"I can hear the coyotes killing bunnies at night."

"A coyote followed a child to the school bus."

"I thought that if I left out one chicken bone per day, the coyotes would leave the rabbits alone."

#### **Resources Cited:**

- Timm *et al*, Hopland Reserach and Extension Center, University of California, Coyote Attacks: An Increasing Suburban Problem, 2004.
- Colorado Division of Wildlife Documents:  
Living with Wildlife in Coyote Country, 2005  
State Laws and Information Pertaining to Coyotes and Foxes, 2004 and 2005
- Gehrt, Urban Coyote Ecology and Management, 2006
- Fox, Coyotes and Humans: Can We Coexist?, 2006
- J C O'Connell, Coyote issue has some at city officials howling for change, Aurora Sentinel, 2007
- Palo Alto Open Space and Nature Preserves Policies and Procedures Manual, 2007
- Dell'Amore, City Slinkers, Smithsonian Magazine, 2006
- Allan, From the Canyons to the Cul-De-Sacs, Animal Sheltering, 2007
- Johnsgard, Prairie Dog Empire, 2005
- [www.urbancoyotereseach.com](http://www.urbancoyotereseach.com), 2009
- [www.coyotebytes.org](http://www.coyotebytes.org), 2009