

# Coyote

*Canis latrans*



## Other common names

Eastern Coyote

## Introduction

Coyotes are the largest wild canine with breeding populations in New York State. There is plenty of high quality habitat throughout the Rensselaer Plateau. If you know what to look for, signs of coyote activity are easy to spot when you're hiking the trails at Dyken Pond. We often capture images of them on our trail cameras as well.

## Physical Description and Anatomy

Coyotes are a medium sized mammal in the canine family, with a narrow, pointed muzzle, erect pointed ears, and a full bushy tail that is carried pointed down. They look similar to German shepherd dogs, but they're about half the weight, between 35 – 45 lbs (15.8 – 20.4 kg). They are 4 – 5 feet long (1.2 – 1.5 m), and of that length 12 – 15 inches (30.5 – 38.1 cm) is tail. They stand 15 – 20 inches (38.1 – d 50.1 cm) high at the shoulder. Their thick coat is composed of long coarse guard hairs laid over a coat of dense underfur. Color is highly variable, and ranges

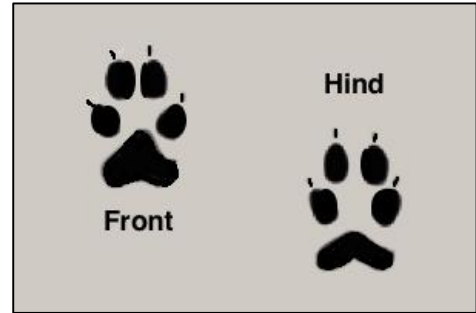
from blonde or reddish blonde to dark tan or almost black. The legs, ears, and cheeks are often reddish, and the underparts are lighter. Their eyes are yellow, but it's unlikely you'll get close enough to see them.

### Identifying features (tracks, scat, calls)

Coyotes are often mistaken for wolves by inexperienced wildlife watchers, but there are some key differences between the two species. Most apparent is size: coyotes are smaller and lighter than wolves. Their thick fur is deceptive and makes them look bigger.

When hiking, you're more likely to see signs of coyotes rather than the animals themselves. Their tracks are similar to those of medium sized dogs. They have four toes with claw marks and a rear pad. Their scat is more tapered than that of domestic dogs. If you find some, look for evidence of their recent meals, including bones and hair, parts of fruits, or nuts.

Don't forget to use your ears as well. Listen for howls or short, high-pitched yelps at dusk and after dark. They can be heard year-round, but coyotes are more vocal from late-summer to early fall, and again during breeding season in January and February. They may even respond if you imitate their calls. They are deceptively vocal, and you may think there are many coyotes vocalizing, when in fact there may only be one or two individuals making a wide range of sounds.



Coyote tracks.

Front: 2 1/8 – 3 1/16 inches long  
by 1 5/8 – 2 1/2 inches wide

Hind: 1 3/4 - 2 15/16 inches  
long by 1 3/8 – 2 1/8 inches  
wide



Coyote scat.



Coyote pelt.



Coyote skull (female).

## Habitat

Coyotes are highly adaptable, and can be found in a variety of habitats. Their natural habitats tend to be forest and woodlands, grasslands, and brushy fields. However, they're increasingly known to live in suburban and even urban areas like New York City.

## Behavior and Diet

Coyotes are territorial creatures that will defend their home range of 2 – 15 square miles. They can run 35 – 43 mph (56 – 69 kph), and they're even known to be good swimmers. Individuals are more active at night, but they can be seen any time of day. Seeing a coyote during the day doesn't necessarily mean it is sick, but you should never approach one.

Populations are organized into family groups of a breeding pair and their most recent litter of pups. They use dens with multiple entrances when raising their young, but otherwise they'll bed down on the ground. They have few natural predators, but carnivores may prey on young pups. A healthy individual can live 10 – 14 years.

One reason coyotes are so adaptable is that they are opportunistic hunters. They will take advantage of any available food source, and this varies with the seasons. In the summer, their diet contains insects and plant materials like berries. In early fall they eat insects and small mammals like mice and voles, rabbits and snowshoe hares, raccoons, groundhogs and even birds. In late fall and winter, when other food items are scarce, they feed mostly on small mammals. Towards the end of winter game is scarce, and they turn to white tailed deer, both hunted and scavenged from carrion like roadkill. They also take young fawns in the spring before other food sources become abundant.

## Human Interactions

Unfortunately, human activities provide many food sources for coyotes, and this can cause conflict between the two species. There are always rodents associated with populations of humans. Coyotes will take advantage of outdoor pet food, garbage, and even garden fruits and vegetables or livestock and poultry. They may even take outdoor cats and small dogs. Most interactions are not directly between humans and coyotes, but between coyotes and pets. Peaceful coexistence is possible with simple precautions of reducing access to potential foodstuffs, fencing your yard, and keeping pets leashed when they are outside.

## Reproduction

Coyotes are monogamous, meaning they will mate with one individual for life. Mating occurs from January to March. They use dens with multiple entrances to raise pups. These may be ground dens, brush piles, downed trees, rocky crevices, and even human structures. After gestation of about 62 days, females give birth to a litter of 4 – 6 pups in March and April. Females stay close to the den with the pups, while males will hunt to provide food for the family.

Pups are born blind with short, woolly fur. They open their eyes at 2 weeks, and are weaned between 5 – 7 weeks. At this point, they are more independent and may even go off on their own for short periods. Young become more vocal in late summer and early fall, and are fully grown at 9 months. They disperse from late October to January, and are often driven off when the parents begin the new breeding cycle. They are reproductively mature at 10 – 11 months, but may wait until their second year once they have established a new territory before breeding.

## Fun Facts

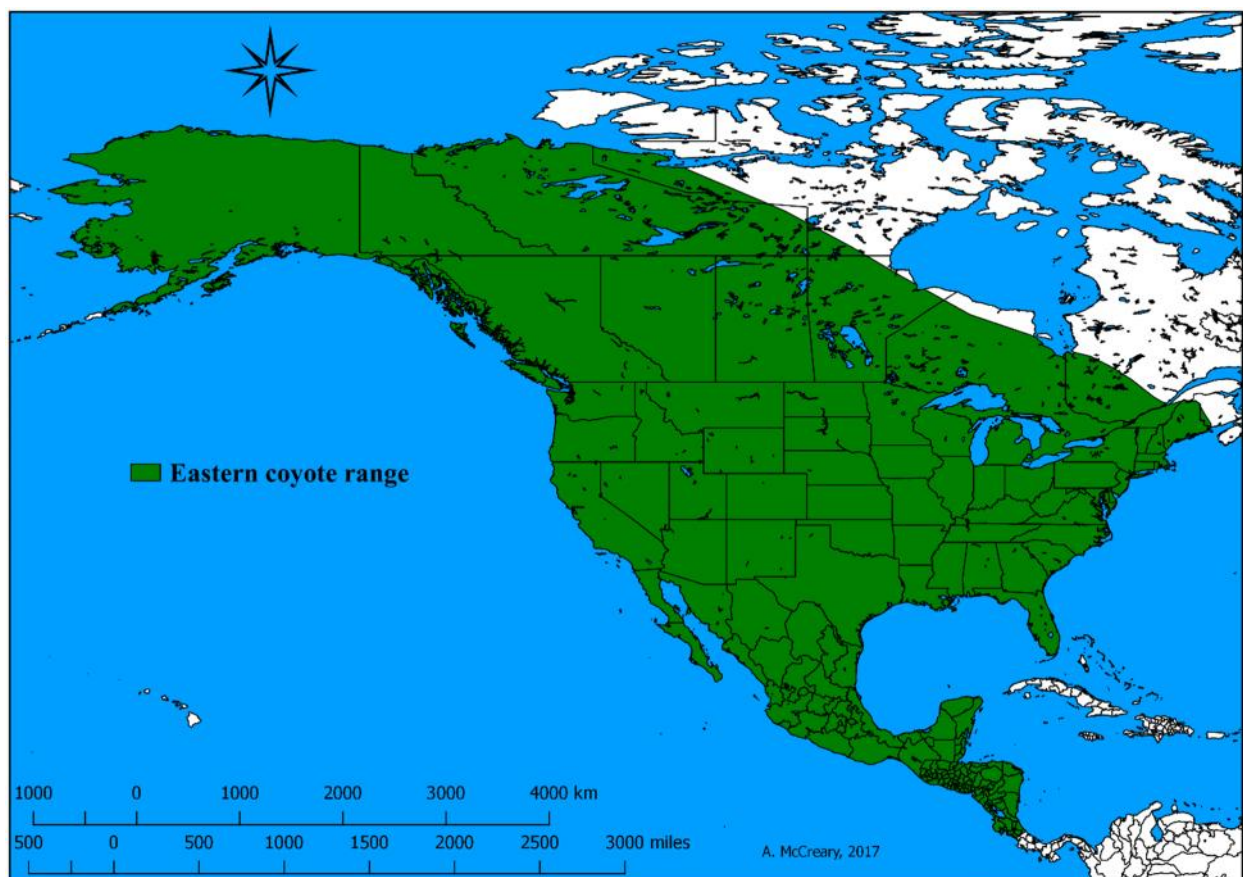
The Eastern coyote has the ability to hybridize with other members of the canine family like wolves and domestic dogs, a habit which is even now affecting the evolution of this species. One important detail to remember is that female coyotes rely on males to hunt for them while they're raising pups. Domesticated dogs are not likely to perform this duty, so interspecies matings are often unsuccessful.

Coyotes will not actively seek out other species as mates, but during times of low populations potential mates can be hard to find. One hybridization event occurred in the Great Lakes region in the early 1900s between western coyotes and grey wolves. Individuals resulting from interspecies matings in turn mated both with full wolves and full coyotes, introducing genetic material from the opposite species into each population. As coyotes continued populating New York, similar events occurred with domestic dogs, resulting in today's eastern coyote. Using genetic analysis, researchers found that some populations of eastern coyote are 64% western coyote, 26% wolf, and 10% domestic dog. This ratio is different for each population, depending on its breeding history. The varying colors of the Eastern coyote stems from the influence of the dog genes they carry.

## Range and Status

Coyotes have spread across most of North America, from northern Alaska to Costa Rica. They originated in the Great Plains and southwestern United States. Their range was originally restricted by the gray wolf, but it has expanded greatly in response to reduced wolf numbers. Their numbers were also reduced by human efforts to extirpate them from many areas. These activities were unsuccessful, and coyotes have actually adapted very well to human habitation.

Historically, coyotes were excluded from New York by gray wolves. Wolves were targeted by early settlers, and when they were extirpated they left a niche open. Coyotes expanded their range in response to reduced competition. Coyotes began colonizing New York in the 1930s and 1940s, and had established a stable population by the 1950s.



## Management

Populations in New York are stable, and they are not listed as endangered, threatened, or at risk. There are an estimated 14,500 breeding pairs of coyotes in New York in the summer. Hunting and trapping of this species is allowed in New York with a small game hunting or trapping license.

# Pictures



2015-07-22 5:58:10 AM M 3/3 55°F



HC500 HYPERFIRE

RECONYX

2015-07-22 5:56:52 AM M 1/3 55°F



HC500 HYPERFIRE

RECONYX



## At Dyken Pond

Coyotes and their signs are frequently seen and heard around the Dyken Pond. The series of pictures above was captured by one of our motion activated trail cameras. In winter, we often follow a single set of tracks, only to find out it is two or three individuals all following in each other's' footprints. We also frequently hear young coyotes yipping and howling in summer. On the plateau, there are many different color variations of coyotes, due to the influence of domestic dog genes.

## Links

More information on coyotes can be found at the following links:

Nuisance Coyote Management

<http://www.dec.ny.gov/animals/6971.html>

The status and impact of eastern coyotes in Northern New York

[http://www.dec.ny.gov/docs/wildlife\\_pdf/coystatnny91.pdf](http://www.dec.ny.gov/docs/wildlife_pdf/coystatnny91.pdf)

Rise of the eastern coyote

<http://www.dec.ny.gov/pubs/97143.html>

## Sources

Elbroch, M. (2003). *Mammal tracks & sign: A guide to North American species*. Mechanicsburg, PA: Stackpole Books.



Hoyt, L. (2016). *Mammals*. Dyken Pond Environmental Education Center, Cropseyville, NY.

New York Department of Environmental Conservation [NYS DEC]. (n.d). *Animals, plants, aquatic life*. Available from: <http://www.dec.ny.gov/23.html>.

Pajarito Environmental Education Center. (2017). *Track guide*. Available from: <http://peecnature.org/learn/nature-guides/track-guide/>

Saunders, D.A. (1988). *Adirondack Mammals*. Syracuse, NY: State University of New York, College of Environmental Science and Forestry [SUNY-ESF].