

# The Coyote in New York State

**From the SUNY College of Environmental Science and Forestry...**

The coyote has been present in New York state at least since 1920. As with its western cousin, the eastern coyote has been the object of much controversy as well as curiosity.

Those who hunt deer view the coyote as a competitor and a threat, while others believe coyotes rely mainly on smaller mammals and carrion for their diet. Some individuals are concerned that the livestock industry, particularly sheepherders, will suffer from the coyotes' presence. These concerns have resulted in recent efforts, to date unsuccessful, to remove all protection from the coyote, and in some cases to pay bounties to reduce their numbers or eliminate them.



Ecologists at the College of Environmental Science and Forestry, and others in the eastern United States and Canada have learned a lot during the past 50 years about this newest addition to our wildlife community.

## **What are the Characteristics and Lifestyle of New York Coyotes?**

The eastern coyote is considerably larger than its southwestern cousin. The largest individuals are as big as smaller timber wolves. Adults may range from 35-45 pounds and some large males may exceed 50 or 60 pounds in body weight.

Eastern coyotes have a German shepherd-like appearance, which sometimes leads to confusion about their identity. Typically-colored coyotes are grizzled gray on their back, upper sides and neck. This distinguishes them from most dogs, which are usually a solid color. A small percent are black or reddish-blond, the latter being the more common deviation. Coyotes can be distinguished from most dogs based on their habit of carrying their tail at or below a horizontal level when traveling. At a distance it is more difficult to tell coyotes from wolves, but up close, wolves have a more massive head, less pointed muzzle and ears, and larger feet.

Most coyotes breed during the month of February. Their young are born 60-63 days later, usually in a ground den (often a renovated woodchuck or fox den), but sometimes in hollow logs or rock caves. Litter sizes vary from 2-10, with 5-6 being the average.

Larger litters are usually born when coyote populations are well fed or their numbers are low. It is this tendency to produce more young when populations are low that makes it difficult to significantly reduce coyote numbers. Scientists have found that it would require removing nearly 70 percent of the population every year to achieve sustained population reduction.

### **Are They Really Coyotes?**

Early reports of “coyotes” in the east were often greeted with skepticism. Sometimes, after seeing the animals’ large size and hearing their howling, people declared them to be wolves. To further confuse the issue, some animals were identified as “coydogs,” a mix of coyotes and dogs.

Early studies, which used skull measurements to identify species, suggested that most of these animals were mostly coyote. These studies also showed that some interbreeding with wolves may have occurred. Recent studies using DNA analyses clearly show that hybridization with wolves has occurred, most probably in southern Canada where populations of wolves and coyotes adjoin each other. Hybridization has similarly occurred between coyotes and red wolves in our southern states, but has not been reported for coyotes and the larger subspecies of gray wolves in the northwestern states, northern Canada or Alaska. The degree of hybridization varies among individual coyotes in New York and adjacent New England states. Although specimens of coy dogs were identified during the early years of coyote colonization, recent DNA analyses show no evidence of dog genetic material persisting in our coyote population.

### **Where Did These Coyotes Come From?**

Coyotes gradually extended their range eastward after wolves became extinct in the eastern U.S. and southern portions of Canada. Coyotes first appeared in the early 1900s in western Ontario, in the 1920s in New York and progressively later across New England until their appearance in New Brunswick in 1975.

Young coyotes may disperse more than 100 miles from their birth place. This tendency to disperse is the way they have expanded their range and filled in voids within occupied range.

### **Where Do Coyotes Now Occur? How Many Are There?**

Coyotes are firmly established throughout all New York counties except Long Island and New York City. Their numbers have been estimated at between 20,000 and 30,000. Coyotes are abundant throughout New York state. As with most wildlife populations, numbers will fluctuate over time as food, weather and disease conditions change.

### **What Do Coyotes Eat?**

Almost anything! Coyotes are opportunistic and eat what is most available at a given time or place within their range of tastes and can change over time. Coyote diets in the Adirondacks in the 1950s were dominated by snowshoe hares and a variety of smaller animals; they also included significant amounts of insects and berries in late summer and early fall. For the past 30 years deer have dominated winter diets (80-90%); spring and summer diets consisted mostly of deer (50-60%) with lesser amounts of beaver, snowshoe hare and insects and berries in late summer. Diets in the 1970s in central New York included only a small percent of deer and were dominated by rabbits, woodchucks, small mammals and fruit. Many recent anecdotal reports suggest deer may now comprise more of the diet than previously.

### **Are Coyotes a Threat to Deer or Livestock?**

Some people are convinced that coyotes are limiting the abundance of deer, particularly in the Adirondacks, and point to the finding that deer are the predominant food of coyotes in that region. But, deer numbers have progressively increased in all Adirondack counties from the 1970s to peak numbers in the '90s. Although there is some evidence that coyotes may limit deer numbers in certain local situations, it is obvious that coyotes have not limited deer abundance on a regional scale.

Coyotes can be a significant problem to individual sheep-raisers and may occasionally kill young calves. Those who raise livestock should recognize that coyotes are a potential hazard and use guard dogs, fencing, pasture management and other practices that minimize opportunities for coyote depredation. Farmers who suffer loss or damage to livestock or pets are permitted to eliminate the "nuisance" coyotes. Uncontrolled domestic dogs are a much greater threat, responsible for losses to livestock far exceeding losses from coyotes.

### **Are Coyotes Dangerous to Humans and Pets?**

Although coyote attacks on people have been historically rare, this concern is not unwarranted in the light of more recent events. Such attacks have become more frequent as both coyote and human numbers have increased and merged in space and have been reported in several states (including New York), but most notably in California. Attacks have primarily occurred in suburban areas where coyotes have lost much of their fear of humans due to lack of pursuit and where associated with an easy food source such as garbage and pet food. In some cases, coyotes had been deliberately fed. The best insurance against coyote attacks is to 1) keep all garbage or other foods safely secured, 2) keep pets and their food indoors or safely secured if out doors and 3) harass any coyotes which come into your neighborhood by making loud noises – shouting, starter pistol, alarm devices, etc. If coyotes become persistent or unfazed, lethal removal may be necessary.

Attacks on dogs in rural areas most often occur during the coyote mating and pup birthing period – January through June – as a territorial defense behavior. Coyotes have frequently closely followed and sometimes attacked dogs when being walked by their owners – and sometimes the owners. Coyotes relish cats as food items.

### **Do Coyotes Have Positive Values?**

The majority of speakers at a recent series of public meetings throughout northern New York expressed positive feelings about coyotes. People enjoy hearing their evening “serenades,” observing them hunting the fields in their neighborhoods or simply finding tracks or other signs during their outdoor travels. A growing number of sportsmen enjoy coyote hunting, and coyote skins currently are among the more valuable furs. Scavenger animals in northern New York—foxes, fishers, marten, ravens and even golden eagles—benefit from coyote predation of deer through increased food availability. Raven populations were absent after the elimination of wolves in northern New York and northern New England; with the emergence of the coyote as a deer predator, raven numbers have recovered. Coyote predation on deer also may serve to foster a healthier deer population and ecosystem, particularly in remote areas where very few people hunt. Many farmers are delighted with the reduction in woodchuck numbers on their farms following the arrival of coyotes.

### **What is the Current Legal Status of Coyotes in New York?**

Coyotes have been listed as a game and furbearing species in New York since 1976 and are protected by the Environmental Conservation Law. This law allows the state to establish limited hunting and trapping seasons, and the means of take, and to monitor the take by means of a pelt-tagging system. The coyote population is thriving and well established statewide as a New York resident.

Enjoy them when you see or hear them!

### **Credits:**

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