

# THE GREAT OUTDOORS



*The eyes of the gray fox look like a make-up artist has applied eyeliner. Notice the black nose and round pupils. Other foxes have vertically slit pupils. Photo: Renee Grayson, Flickr.*

## **Sly as a Fox**

*Most of us will never get to see a gray fox. Unlike the red fox, the grays are skittish and elusive.*

By J. Morton Galetto

I remember my parents had an old lithograph of a fox hunt over their sofa. It depicted long-legged hounds and people on horseback with English saddles. Some were off their horses just walking about in fancy attire: red coats, beige pants covered just beneath the knee by tall riding boots, and wearing top hats or equestrian helmets. Their quarry was the elusive fox.

Two foxes are native to New Jersey: the red and the gray. During colonial times red foxes were not plentiful in New Jersey. Most red fox were imported by colonists from Europe for hunts for

an interesting reason. Grey fox, our common species, didn't run as large an area and they treed themselves. You read that right, gray fox (*Urocyon cinereoargenteus*) can climb trees!

Let's discuss the "native" aspect of red foxes. In the *Journal of Mammalogy* researchers studying the genealogy of red foxes noted, "Although European red foxes translocated to the eastern United States during Colonial time may have contributed genetically to extant populations in that region, our findings suggest that most of the matrilineal ancestry of eastern red foxes originated in North American." In other words there was a natural expansion of their range. Their tendency to habituation, or adjustment to human development, contributed to red fox increasing distribution. That being said the grey fox is undeniably a longtime native to New Jersey. And gray fox don't tolerate human encroachment. They are shy while red fox can be bold. We will save red foxes for a future story, but comparing them to some extent here will yield greater understanding of our subject species, the gray fox.

Not only did gray fox tree themselves, but their territory is much smaller than a red fox's home range. A red fox utilizes about 3-7 square miles while a gray fox has a range of half a mile to 4 miles and uses only a portion of the area in a day. Thus on a fox chase the gray fox simply wasn't providing a distance necessary for a horseback-oriented event.

Traditionally a red fox might go down a hole where riders would employ a short-legged dog like a Jack Russell to go after it. But a gray fox's sharp semi-retractable claws and short legs allow it to climb vertically as much as 18 feet up a trunk of a tree. And since they are the only member of the Canidae family that can climb, the chase was abruptly ended. I have seen dogs in trees but only trees with very horizontal aspects. What we are describing here is an ability to climb a trunk that is perpendicular to the ground. And they can navigate downward, leaping from limb to limb or even descending the main trunk head first!



*Even though their legs are relatively short a gray fox can reach speeds of up to 40 mph – and climb trees. Photo: Matt Francey Flickr.*

The grey fox's shorter legs also allow it to navigate thicker cover than the red fox. When chased it would run into thickets that dogs could not navigate, and which riders avoided as well. Today some fox chase clubs use lurers or scent trails, not live foxes. And foxes are not usually pursued once they have "gone to ground."

The gray fox's range is extensive in the Americas from Southern Canada to Venezuela and Colombia. They are absent from portions of the Great Plains and mountainous regions of the Northwestern United States (Fritzell and Haroldson-Mammalian Species).

David Chanda, former Director of NJ Fish and Wildlife, shared that red and gray foxes are somewhat intolerant of each other. Fortunately their habitat preferences tend to separate them. Red foxes prefer open hardwoods and field edges, while conversely gray fox prefer swampy areas and dense thickets. This habitat suits their shyer nature making them more elusive. Grey fox love swimming which comes in handy in a swamp. All foxes can swim but red fox prefer not to.

It is very uncommon to see a gray fox. In fact if you think you have seen one, red foxes have enough color variations that you might have mistaken a red fox for a gray. But gray fox have some very specific coloration differences. The most diagnostic is the distinctive black stripe along the dorsal surface of the tail and the black-tipped end; the red fox has a white-tipped tail. Their back is mottled gray shades and their belly is creamy. Generally they have a white bib, starting at their lower cheek, then outlined in a tawny shade. Usually their eyes are dark, but they can also be blue. In contrast with other vulpes (true foxes) their pupils are oval instead of slit-like. The eyes appear as if they are wearing black liner, complete with a stripe of black fur extending from the outer corner. Their legs and

the sides of the belly are reddish brown. Red foxes, have pronounced black socks.



*Note the black tail stripe and tawny neck of the gray fox. Long whiskers on the face and legs help foxes to navigate in their environment. Top photo: Renee Grayson, Flickr, lower photo: Larry Miller, Flickr.*



*Note this "red" fox's black socks and very orangy colored fur.  
Photo: John Carrel flickr.*

Gray fox are primarily nocturnal but also crepuscular, using the twilight of dusk and dawn. Red foxes are similar but much more likely to be seen in daylight hours. Most of us will never get to see a gray. They even beat out coyotes for eluding observation.

Foxes have been trapped and also raised for their fur. The red fox has been considered more desirable in the fur trade because of its soft texture. Gray fox have a double pelt of soft fur and coarser guard hairs that is shorter than a red fox's coat. Red fox are also considered much easier to snare, such that their fur is more readily available. Although trapping is still a means of income for hunters it is a diminishing practice. Unfortunately red fox have found their way to the previously safe areas of barrier islands where they historically would not have existed. At times when trapping is necessary, for example to

protect beach-nesting birds, it can be hard to find people who know the art.

Gray fox live in hollows of trees, stumps, or another animal's burrow - often woodchuck holes. They are solitary animals except for breeding season. Both dog (male) and vixen (female) will raise the pups. Seasonally monogamous, they typically raise 4-6 pups where the larger red fox will raise up to 9 (and some sources suggest 14). The pups will be nursed for the first three weeks and then switched to solid food. The dog will hunt for and bring cottontail, voles, field mice, shrews, and birds for the family. They will also climb trees for fruit. At four months the pups will be taught to hunt; by 10 months they are independent and sexually mature, with an average adult weighing ten pounds. Then they will disperse, setting up their own territories.



*The gray fox is the only canid to possess a skull with a U-shaped temporal ridges. Photo: Wayne Longbottom, MD Diversity Project.*

With keen eyesight, excellent hearing, and sharp intelligence gray fox are adroit hunters. It is said they can hear a watch tick or a mouse squeak at 100 yards. Although small rodents are their main staple they will eat invertebrates such as grasshoppers, and also frogs, turtles, birds, and bird eggs. In the spring fruits, nuts, and invertebrates can make up to 70% of their diet. Their main predator is the coyote, but eagles, bobcats, and great horned owls are in the mix, especially for pups.

Gray fox can pose threats to poultry farmers, but more often it will be a misidentified red fox that is the culprit. They can carry rabies but again they are not commonly habituated to developments like red fox and they are very skittish and shy. Although you are unlikely to see one, I hope that, like me, you'll find it nice to know this cunning creature is part of our natural heritage.

#### Sources

NJ Division of Fish and Wildlife

Animal Diversity Website

Journal of Mammalogy, 93(1):52-65, 2012