

Concord River Greenway: Wildlife Tracks & Signs

Wildlife along the Greenway



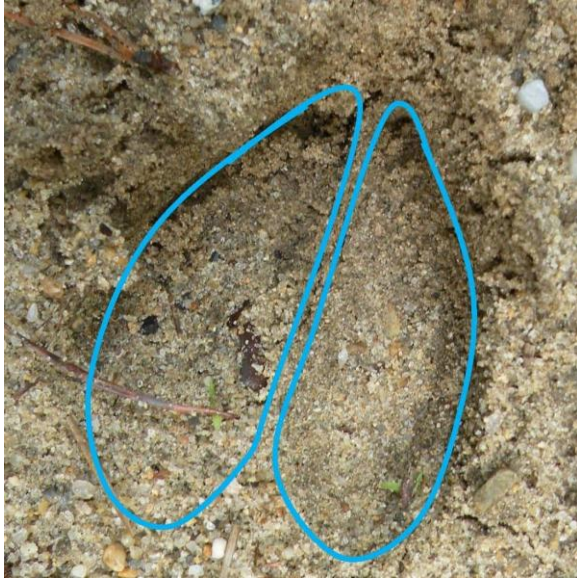
The City of Lowell boasts a great amount of wildlife from wood frogs to fishers, from monarch butterflies to peregrine falcons. The Greenway is no exception. Wild animals are everywhere, but knowing how to find them often requires tracking skills and some close observation. Wildlife tracking is “the art” of studying and interpreting signs and evidence left behind by animals. By doing so, we learn what wild animals are around without having to actually see them.



Deer track #1.

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To make your search for wildlife a success, think like a detective. Imagine the behavior of animals and look for clues. Think about what the animals were doing when they left evidence behind and use this information to interpret the scene.



Deer track #2.

Always remember, a good detective never destroys the evidence, so be careful not to walk on animal tracks or disturb other evidence of wildlife. As an animal track is seen in the image “Deer track #1”, you can visualize the shape of the animal’s foot by imagining the outline of it, as illustrated in “Deer track #2.”

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Gray squirrel.

Eastern gray squirrels have many remarkable **adaptations** giving them an advantage when it comes to finding food, water, and shelter.

Look for signs of squirrels high up in trees. They are known for their large, elaborate **nest**-like homes, called “**dreys**”, which are made of mostly sticks and leaves, sometimes even litter. Their tracks are also among the most commonly observed of any animal throughout the year.



Mother raccoon with young.

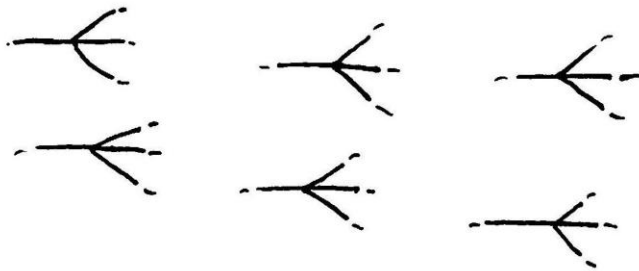
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Raccoons are wild animals, because they find their own food, water, and shelter. To the keen eye, their tracks and signs are often evident.



Dogs are domestic animals because they get their food, water, and shelter from humans. Their tracks are often seen along the Concord River and might be confused with the tracks of wild animals.

Winter is easily the best time of year to explore the Concord River Greenway if you are looking for tracks and other signs of wildlife. Fresh snow often provides a perfect substrate to observe the size, shape, and patterns of animal tracks. Mud and sand along the trail and down by the river are great places to look for tracks, too.



Bird tracks.

Most animals are wary of human activity, staying well hidden for protection. Looking at their tracks is often the only way to know they are living in the area. Also, many wild animals are **nocturnal**, which

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means they come out only at night, when we are unlikely to be around to see them (humans are **diurnal**). The best time of day to see tracks is in the early morning, before the snow melts, the wind starts to blow, or the sun dries out the ground.



Tracks often appear in moist mud and sand.

When snow is deep, or if the snow begins to melt, the detail of individual prints can be difficult to read. This is often a better opportunity to study the “track patterns” or “gait” of animals. Every species has a unique way of walking, although they might mimic the track patterns of other animals at times. A cottontail rabbit hops along, while a red fox walks on all fours, and humans walk upright on two feet. Each animal has a different length of stride, too, which can also help determine what animal you are tracking.

Tracking hints: Match up wild animals with their associated track patterns, **pacers** (also known as waddlers), **gallopers**, **bounders**, and **diagonal walkers** (also known as perfect steppers). Don’t always get hung up on what individual prints look like. Use your tracking guide to compare both individual tracks and track patterns, by shape, size, and stride. Try to identify the track pattern first. This will help you to narrow down the field to several small groups. Then work on narrowing down the species.

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Pacer is one type of track pattern. The pacer pattern generally lacks the regularity of other gaits, showing movement on one side of the body and then the other or a sporadic step. Animals that pace include skunks, raccoons, muskrats, woodchucks, and opossums (which sometimes drag their tails).



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Pacer tracks often appear under thick brush, around rocks, along river banks, and even in open areas. This is the look of a typical pacer's track pattern (raccoon tracks).



These tracks are from a squirrel galloping from left-to-right.

Galloper is another track pattern. Animals leaving these tracks place their smaller front feet down first and then swing their larger hind feet around to the front, although this varies somewhat. Squirrels generally place their front feet down directly, side-by-side, while rabbits and hares typically offset their front feet. The hind feet of both, however, are usually placed down side-by-side and wider than the front feet. Animals that gallop include white-footed mice, red squirrels, and Eastern chipmunks.



Squirrel tracks often begin and end at trees and move across open areas. Look for holes in snow and soil, which they dig while looking for acorns and other seeds.



Rabbit tracks also move across open areas, though they often begin and end at shrubs and thick brush (not trees).

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These tracks bound along the banks of the Concord River, a typical **habitat** for some weasel species, such as this mink.

Bounders hop and leap along like a slinky traveling down stairs. They place their front feet down. In one motion, they lift their front feet up and place their hind feet down in about the same spot where the front landed and leap forward again. This is an energy efficient locomotion, which creates the optical illusion that the animal is really only hopping along on two feet, side-by-side. *Look for other animals that bound along, such as river otters, short-tailed weasels (ermine) and fishers. Animals that bound include river otters, short-tailed weasels (ermine) and fishers.*



Otters and mink bound along the Concord River and leave tracks in winter snow cover. (Their feet often land more or less side-by-side, but may also land offset.)



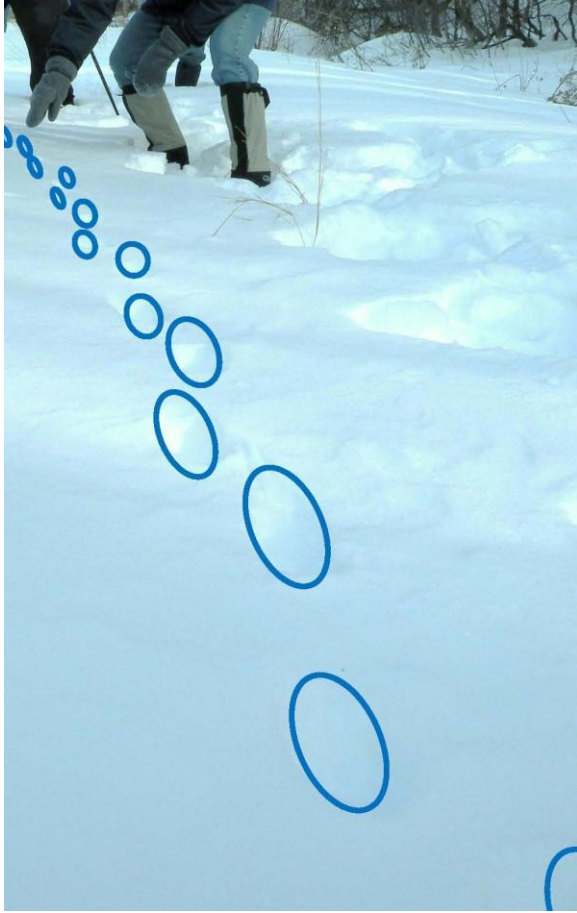
Mink and otter leave prints along the sides of their slides where the animal “paddled” through the snow and slid along for easier (and fun) travel.

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A narrow slide created by a mink heading down to the river. Can you slide (sled) like a mink?

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These fox tracks step perfectly, nearly in a straight line.

Diagonal walkers walk very carefully and efficiently. Very intentionally they will place down the front foot and then the hind foot in just about the same spot where the front landed. This is especially important in deep snow or for efficient use of energy and safety. Perfect stepping animals include *domestic cats and dogs, bobcats, mountain lions, coyote, fox, deer, and humans.*



Diagonal walkers alternate steps and place their hind feet in about the same location where the front feet were placed.

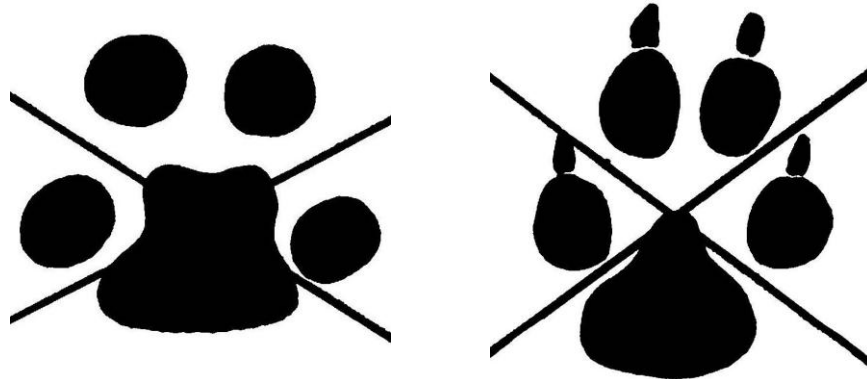
The track patterns of domestic dogs and wild dogs look very similar. However, domestic dog tracks often wind and circle, whereas the tracks of a coyote or a fox will likely take a more direct and energy

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efficient course. Diagonal walker tracks are often observed where travel would be easy, such as right along the Greenway trail itself or on their own favorite paths.



The individual prints of cats and dogs look similar to each other. To tell the difference, try drawing an "X" through the paw print. If the "X" clearly goes through the heel pad, the track is likely from a cat. If the "X" barely or minimally touches the heel pad, the track is likely from a dog.



The tracks we find are usually from mammals. Birds also leave behind tracks on occasion, or even feather strokes, especially in snow where they capture prey (known as a kill site).

A few final notes on tracking: It's good tracking etiquette to back track by following animal tracks towards where they came from, as to not disturb them and force them to expend unnecessary energy or become stressed.

"When in doubt, track it out--going backwards until you find the definitive track that gives you the A-ha moment of discovery." -D. Stein

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Scat!

Scientists and outdoor enthusiasts alike get excited when they come across a peculiar piece of scat. It may sound a little yucky at first, but observing **scat** (better known as wild animal poop) reveals many clues about wildlife living along the Greenway.



Every piece of scat has a special story.

Territory: Scat is often intentionally placed in a given location by animals to mark territory. A weasel may leave some scat on top of a rock to say, “Hey this is my rock, and you better stay away!”

As a point of reference: Scat can even be used as a trail marker. At a trail junction, where two trails meet, a fox may place some scat there to serve as a scent post. This will help for when the fox is returning home, for it will smell the scat, recognize its scent, and say, “Oh, yeah. This is my scat. I know where I am. I turn down this trail to get home to my den.”

Local diet: Scat is also interesting, because one can observe what local animals have been eating; whether it’s plant or animal material. If you were to see small, rounded pellets full of plant-like material, you could assume you were looking at herbivore scat of a rabbit or deer scat. If you were to see bones and fur in the scat you might assume it’s carnivore scat of a fox or coyote.

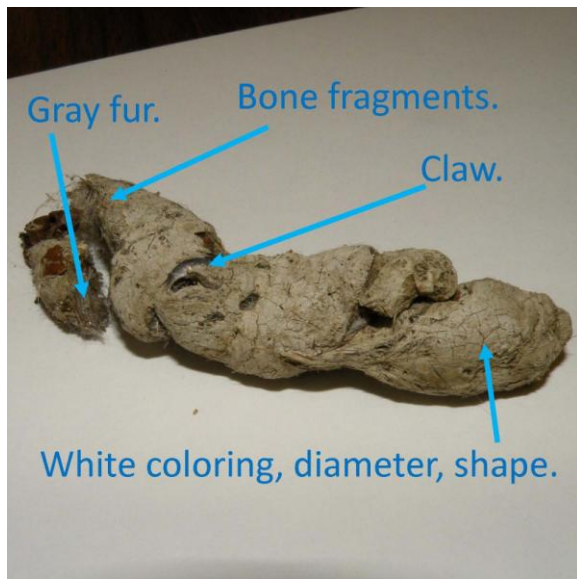
Local wildlife species: Scat can help to narrow down what food is available to wildlife and to narrow down what species you are tracking according to their typical diet. Think about the animal as an **herbivore**, **carnivore**, or **omnivore**. Look for just plants, or just bones and fur and insect parts, or both. Scat may also be mixed indicating that the scat is from an omnivore or an opportunistic species.

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Seed dispersal: Plants, such as pokeweed, have seeds that can only be **dispersed** by birds that eat them. A bird will eat the purple berries of the **native** pokeweed plant. It will eventually drop its scat, filled with the pokeweed seeds, likely hundreds of feet away from the original plant. The seeds will grow, while the rest of the scat provides valuable fertilizer and the bird has effectively planted a source of food to be available in the future. (*Pokeweed seeds are poisonous to mammals, including humans.)



Can you identify this scat? You can see bones, gray fur, and a small animal claw. The scat is also white, which would indicate that it is from a wild animal.



In addition to tracks, there are a wide range of other clues to look for when investigating the activity of wildlife.

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Other signs to look for, in addition to scat include:

- Trails through thickets and along the water's edge (mammals)
- Tunnels or channels in snow (rodents, insectivores)
- Tree cavities (rodents, birds)
- Scratches on ground or on trees (mammals, birds)
- **Midden**, such as piles of mussel shells or seed shells and husks on rocks, under trees, or along river's edge (rodents, weasels, raccoons)
- Nests and dreys (birds, squirrels)
- Burrows in the riverbank, under roots, logs, and rocks (rodents, insectivores, amphibians, belted kingfishers and other birds)
- Slimy secretions (slugs)
- Snake skins between rocks and logs
- Peculiar sounds (especially from birds, amphibians, insects)
- Plants, such as pokeweed or oak trees; plants which may have been planted by animals (seed dispersal)
- Piles of feathers and fur, blood drops etc. (where predators have captured their prey)



Woodchuck burrow.

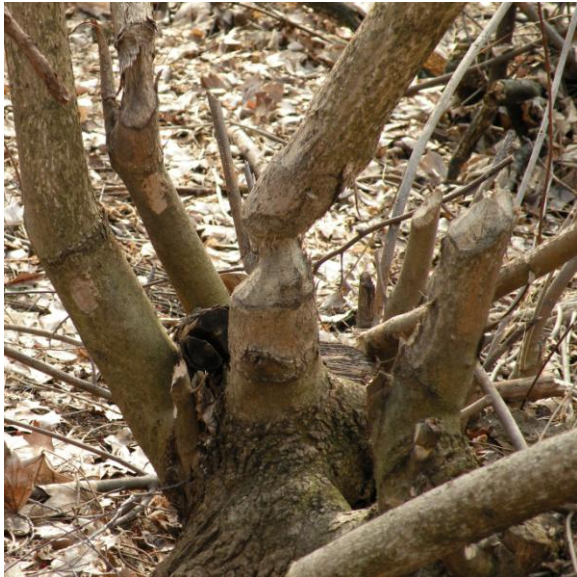
Woodchucks are rodents in the squirrel family and will dig burrows with multiple entrances. Their winter burrows can be five or deeper underground, deep enough to reach below frost line, where they are able to safely hibernate.

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The nest-like “drey” of a gray squirrel.

Squirrel dreys are often mistaken for bird nests. These cozy homes can be found throughout Lowell and are often spotted along the Greenway, especially during winter months when they are most visible. Squirrels can also be seen using tree cavities and even man-made structures for shelter.



Beaver “chew” (above-left) can be observed along the Concord River all the way into downtown areas.

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Beavers also use trees as a food source, dining on their inner-bark and cambium layers.

Beavers are common along the Greenway. They will cut down trees or remove branches for use as building materials and food caches. However, in rivers, such as the Concord, it is not likely that beavers would be able to construct one of their impressive dams, because of strong water currents. On the other hand, it is possible to see beavers living in burrows along river banks or within lodges in calm waters that are constructed of sticks and mud with underwater entrances. Beavers may cache food, such as branches, at the bottom of the river to serve as a winter food source.

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