

Beginning Backyard Tracking

As people move into suburban areas, they often become next-door neighbors to a variety of local wildlife. Although this offers some new challenges in learning how to live with wildlife, it also offers many opportunities to have fun. An exciting way to start learning about wildlife close to home is through animal tracking, which is as easy as stepping out your back door and looking at the ground.

This publication provides step-by-step instructions for creating tracking spaces as well as castings to record animal foot imprints and provides a brief overview of some of the animal tracks that may be observed.

What Is Tracking?

Tracking is noticing the clues animals have left behind and interpreting these signs as a way to read the whole story, or the who, what, when, where, and why of what happened. In its most basic form, tracking is simply identifying the species, or kinds, of animals that were present. In other words, which animal made this track? What type of animal left those crawfish shells? What animal ate



Photo credit: Amber C. Marable

Figure 1. Tracks are the impressions left in the ground by an animal as it passes. These tracks show where a coyote walked through the area.

the end of a plant, left that pile of scat (feces), or bedded down in that spot? These are questions that a person might ask if he or she were interested in tracking. Other questions will only add to the story. For example, which direction did the animal come from and where did it go? Why did it come into my yard? What was it doing here? When did it leave?

Observing any sign of an animal's presence and interpreting the meaning (reading the sign) can be called tracking. However, the starting point is the actual tracks, or imprints, left by an animal's paws, feet, or tail as it walks, trots, gallops, runs, slithers, or hops along the ground. Since many species are comfortable in suburban settings, you can begin tracking in your own backyard.

Creating a Tracking Space

If your yard is covered in grass, you may need to create a tracking space where you can more easily see animal tracks. This can be accomplished inexpensively and furnish many hours of enjoyment for your family. First, scout out a place where wildlife is likely to visit. If you keep a bird feeder, consider locating your tracking space below the feeder. If you have a water feature (pond, pool, or waterfall) in your backyard, think about placing your tracking space near this water source. Other good locations include the area along the edge of a brushy fence line, near a rock pile, or near natural sources of food such as berry bushes.

For example, most food smells will attract raccoons, coyotes, and foxes— animals that you may not want to become habituated to visiting your yard.

If you do not have a natural animal attractant in your backyard, you can easily create one by placing a rag with various scents on it near your tracking space. Scents that may draw mammals to come closer include perfumes and colognes, spices such as garlic and cinnamon, commercial wildlife baits, pheromones (such as doe scent), food scents (such as sardine juice), or any other potent smell. Note that it is imperative that the scent you use will not attract species that you do not want in your yard. For example, most food smells will attract raccoons, coyotes, and foxes—animals that you may not want to become habituated to visiting your yard. Since very few bird species have a sense of smell, your tracking space may need to be located directly next to a bird bath or feeder to record avian (bird) visitors. However, some bird species may utilize your tracking space for dust bathing.

Once you have located a good area for your tracking space, it is now time to determine whether to create a temporary or permanent tracking space. A simple temporary space can be constructed using a couple of trash bags (slit open and flattened) or a plastic drop cloth. Baby powder, loose loamy soil, or sand can be used to cover the surface of the plastic, providing a soft substrate (ground surface) in which prints can be easily detected.

Another option is to dig a shallow rectangular pit about 2 inches deep by about 3 feet wide and 3 feet long, and fill the area with loose loam. This may allow animals that are a little shy about stepping up to approach the space. If you use this type of space, it will be necessary to maintain it by keeping



Photo credit: Ashley Young

Figure 2. One 6-foot piece of salvaged 2 × 4 is perfect for creating a tracking space. Cut it into two 3-foot-long pieces, and then rip each of these down the full length. Connect pieces using one or two nails at each joint.



Photo credit: Ashley Young

Figure 3. Completed tracking space frame. The shallower the frame, the more likely it will receive visitors. To get the best results, set the tracking space frame flush with the ground.

it free of grass or weeds that will eventually grow from the exposed soil. A sturdier, more movable, wooden sand box (or flower box) type structure, constructed using salvage lumber (either 2x4s or 1x4s should work) and a couple of bags of loam might be a more permanent form. A space anywhere from 3 feet long by 3 feet wide to 5 feet long by 5 feet wide should be large enough to collect tracks without detracting from your yard. The substrate you use should be about 1 to 2 inches deep in order to properly register tracks. Figures 2 and 3 show what to use for frame construction.

Simply locate the tracking space where you think it will be accessible by animals, and wait to see what happens! If the soil is dry, lightly spray a little water over the tracking surface in the evenings to create a substrate that will more precisely register the prints. If you are using baby powder, leave it dry and loose. If you do not find



Figure 4. The eastern chipmunk is just one of the many species that may leave tracks in your tracking space.

any tracks after the first night, don't worry. Be patient—most wild animals have a fear of new things. It will take some time for wildlife to become accustomed to the new structure in their habitat. Try to avoid spending too much time near your tracking space. If you are always around it, the wildlife probably will not be!

If you are unable to create a tracking space in your yard, you can always visit a public park and find a stream or pond. You can usually observe many tracks in the muddy area along the edges of these water sources in the early morning, especially after a good rain.

What You Will See

Alabama has a great diversity of native wildlife, so any number of tracks might be commonly observed in residential backyards. Raccoons, Virginia opossums, coyotes, white-tailed deer, eastern cottontail rabbits, gray squirrels, eastern chipmunks (figure 4), and mice are a few of the mammalian tracks you may encounter. Wild turkeys, crows, and a wide variety of songbirds may also leave tracks. Reptiles such as box turtles and lizards and amphibians such as frogs and toads may leave very distinctive trails across your tracking space. Pets and feral (wild) cats and dogs will also contribute to the number of observed tracks, but their presence will most likely decrease the variety and number of native species leaving their footprints behind. Often, the tracks you see are so specific that they positively identify the species of animal that visited the tracking box.



Photo credit: Amber C. Marable

Figure 5. A coyote track. Note the egg shape, central paw pad, and four toe pads with distinct claw marks visible as well as the middle toenails pointing slightly inward.



Photo credit: Amber C. Marable

Figure 6. A house cat track. Note the rounded look, central paw pad, and four toe pads lacking visible claw marks.



Photo credit: Amber C. Marable

Figure 7. A track showing a raccoon's front paw. Note the five toes and the overall "handprint" appearance.



Photo credit: Ashley Young

Figure 8. A white-tailed deer track. The front of the track faces the left side of the photo.



Photo credit: Amber C. Marable

Figure 9. A partial track left by a wild turkey.

Identification

Learning to identify the tracks you find can be a fun and challenging experience. It is helpful to have a field guide or tracker's guide in hand while looking at the prints. New field guides cost 15 to 30 dollars, but you can frequently find them in good condition for about 5 dollars at used book stores. Most tracks can be distinguished by characteristics that are easy to see. For instance, canid (dog family) tracks are more egg-shaped, whereas felid (cat family) tracks are more rounded. Both canid and felid tracks register (show) four toes and a central pad. Felid tracks rarely register claws since cats have retractable claws, whereas canid tracks very frequently register distinct claw marks. Raccoon and opossum tracks look very similar to human handprints and footprints. Deer leave cloven split-hoof tracks with two toes visible.

Some tracks are easier to distinguish than others. Some species leave tracks so similar that a tracker needs to measure the length and width of the track to determine what species made it. For instance, a coyote track and a gray fox track are almost identically shaped. However, a gray fox's front foot track is only $1\frac{3}{8}$ to $1\frac{7}{8}$ inches long, whereas a coyote's forefront foot track is anywhere from $2\frac{7}{8}$ to $3\frac{1}{2}$ inches long. For that reason, it is very helpful to have a ruler when checking a tracking space.

What Was It Doing?

Once you know which animal made a track, try to figure out what the animal was doing. If you are at the edge of a pond or other water feature, it is probable that the animal was drinking. If you find crawfish shells, perhaps the animal was hunting for crawfish! The placement of tracks can even tell you how fast the animal was moving. For mammals, tracks placed far apart between front and hind feet and very narrowly spaced between left and right sides of the body indicate that the animal was moving very fast. Tracks closer together between front and hind feet and widely spaced between left and right sides mean the animal was moving at a more sedate pace. Everything from a walk to a trot, canter, lope, gallop, or flat-out run is possible. A wandering trail may indicate that the animal was foraging, whereas a more direct line of travel may indicate that an animal was passing through on the way to someplace else. You may find scats (feces) along the trail, which can provide some evidence as to what the animal has been eating. Often, you can find bones, hair, or seeds in the scat. Note: it is absolutely essential to take precautions when looking at any wildlife scat. Some diseases can be transferred through contact with feces or inhaling tiny particles, so you should never touch scat with your bare hands or breathe the air directly above it. Simply use a stick or twig to tease apart the scat to see what is in it.

When to Look for Tracks

The best time to look for tracks is in the early morning. Many species of wildlife are nocturnal (active at night), so they are most likely to leave tracks during the hours of darkness. Try smoothing your tracking space using a stick or a garden rake (so you do not leave too much human scent on the substrate) just before sunset. Checking for tracks early in the morning will minimize the risk of the fine details of the tracks being obscured from something, such as rain, before you get a chance to see them. Species of wildlife that are

more likely to be diurnal (active during the day) include most species of birds. If you want to see bird tracks, check throughout the day while it is light enough to see. The type and condition of the substrate will determine how clearly the tracks register. If the soil is too hard or dry, the animal may not be heavy enough to leave a readable track on the substrate. If the soil is too wet, the tracks tend to smear so badly that it can be difficult to determine which animal made them. In general, a little moisture in the soil, like what occurs after a light rain, is best for registering tracks.

Documenting What You See

Keeping a record of your tracking can give you a list of species known to be found in your immediate area, a frequency of those species' visits to your yard, and a lot of other interesting facts such as which times of the year each species may be visiting a tracking space. Try keeping a nature journal to capture your observations. Record your name as the observer, the date, the location, and the species present for every observation. You may also want to sketch a picture of the track or sign you found. Include any other information you can gather about what the animal may have been doing. Since you will be close to your house, any notebook will do; however, you may wish to invest in a sturdy notebook if you enjoy wildlife watching. Explore the available options of waterproof journals with cloth pages. Try writing with a pencil so that exposure to moisture does not smudge your notes and colored pencils to help add detail to sketches. If you like photography, try taking some pictures of what you find. Just remember to always place an object, such as a ruler or a quarter, next to the tracks to provide a visual reference for size.

Creating Casts of Tracks

If you are interested in creating a lasting version of the tracks you find, you can do so by creating a cast of the track. Here are some quick and simple steps for creating a cast.



Figure 10. Creating a nature journal can be fun and will help you remember what you have seen.

Materials needed:

- **Powdered plaster mix (found in the arts and crafts department of most stores)**
- **Plastic cups (two 16-ounce disposable cups per set of tracks)**
- **Plastic spoons (one disposable spoon per set of tracks)**
- **Paper clips (two per track)**
- **Strips of paper (one 1-inch-wide by 8-inch-long strip per track)**
- **String (one 6-inch-long piece per track)**
- **Pieces of index card (one 2-inch-wide by 3-inch-long piece per track)**
- **Pen or pencil**
- **Water**
- **Gloves and safety goggles (optional)**



Photo credit: Ashley Young

Figure 11. Bend the strip of paper into a circle, and use a paper clip to hold it in place.



Photo credit: Ashley Young

Figure 14. Pour the mixture into the circle of paper on top of the track.



Photo credit: Ashley Young

Figure 12. Have water and plaster mix in separate cups so you can control how much water is added.



Photo credit: Ashley Young

Figure 15. Insert a paper clip into the wet plaster mixture, making sure not to push the paper clip into the soil below.



Photo credit: Ashley Young

Figure 13. Stir in water until the mixture has the consistency of a runny milkshake.



Photo credit: Ashley Young

Figure 16. While waiting for the tracks to set, write out identification tags to attach to your finished tracks. These should include information such as the name of the species that made the track, the location, the date, and your name.

Shape the strip of paper into a circle, and use one paper clip to hold it in place (figure 11). Place the circle of paper around the track, and adjust it so that you can see the entire track in the center, leaving a little space (approximately $\frac{1}{4}$ inch) between the edges of the track and the paper. The strip of paper will act as a retaining wall for the plaster. Fill one plastic disposable cup about halfway with the plaster powder mix, and fill the other with water (figure 12).



Photo credit: Ashley Young

Figure 17. Tie the identification tags to the paper clip handle of the tracks, using a 6-inch piece of string. Wait until the plaster is dry enough not to ruin the tags.



Photo credit: Ashley Young

Figure 18. Wait until the track begins to dry, then carefully peel away the strip of paper.



Photo credit: Ashley Young

Figure 19. After 30 minutes, the cast will be hardened. Carefully lift the track, using the paper clip handle. The plaster cast track will not be solid enough to handle much, so be patient and let it dry for an extra day or two.

Pour and stir water from the second cup into the cup with the plaster mix, using a plastic spoon. Keep adding water and stirring until the mixture is approximately the consistency of a runny milkshake (figure 13). Quickly and carefully pour the plaster mixture into the circle of paper on top of the track, and stick the second paper clip upright about halfway into the plaster mixture (figures 14 and 15). This paper clip will be a “handle” for the plaster cast track. Note that the size of the paper clip should correspond to the size of the track; thus, a very large track will need a



Photo credit: Ashley Young

Figure 20. A finished plaster cast of a white-tailed deer track.



Photo credit: Ashley Young

Figure 21. A finished plaster cast of a partial wild turkey track.

very large paper clip. Wait until the track begins to dry before peeling off the strip of paper (figure 18). The cast should be hard enough to lift from the ground in about 30 minutes.

While waiting, use half of an index card to record information about the track (figure 16). This information should include the species that made the track, the location, the date, and your name. This card will be used as an identification tag for the plaster-cast track. Punch a small hole in one corner of the card, using your pen or pencil. Make sure the plaster cast is hard enough not to damage the tag, and then use a 6-inch piece of string to tie it to the paper clip “handle” of the track (figure 17). After the plaster has set, firmly lift the plaster cast from the ground, using the paper clip (figure 19). The plaster track will probably be very dirty at first. Give it a couple of days to finish drying, and then rinse off the excess dirt. You can use the plaster casts to document your findings as a scientist, as paperweights and door stops, or as stamps (paint the bottoms of the tracks with ink). Note that this cast is a negative imprint, showing the shape of the animal’s foot instead of the actual track.

Get Tracking!

Living closely with wildlife can present many enjoyable opportunities to learn about Alabama's natural resources, especially if you learn how to identify which species live near you. Backyard tracking is a fun addition to any wildlife-watching experience. Beginning tracking is easy, inexpensive, and can be done in almost any residential area. You can spend as much or as little time on it as you like, but it is a great way to get outdoors and enjoy Alabama at its finest. Have fun, and get tracking!



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For more information, call your county Extension office. Look in your telephone directory under your county's name to find the number.

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