



WILD Kids



Tracking Wildlife

Searching for tracks is an exciting way to learn about the actions and behaviors of wildlife. By becoming a nature detective and examining animal tracks, you can take a look into the secret lives of wild animals.

Foot Anatomy

Before you can interpret tracks, you need to know why animals make certain types of tracks. Foot anatomy determines the type of track an animal will leave. Two major foot structures are found in mammals; the reduced foot found in ungulates (animals with a two-part hoof) and the more complex foot found in most mammals. Felids, members of the cat family such as bobcats and mountain lions, have four digits on each foot and have a complex foot structure. "Digit" is another word for toe or finger.



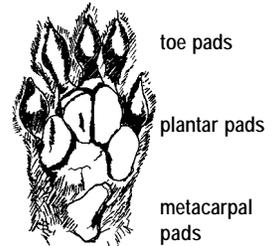
Canids (wolves, coyotes and foxes) have a complex foot structure and have four digits on each foot. The inside toe on the front foot, called the dewclaw, is much smaller and has become vestigial – meaning it no longer has much, if any, function. On the hind foot, the first toe has been lost completely.



Ungulates have even fewer toes. Artiodactyls (even-toed ungulates) have a cloven, or two-part hoof in which the 3rd and 4th digits bear the weight. In deer, the first toe has been completely lost and the 2nd and 5th are greatly reduced. Horses are perissodactyl (odd-toed), having a non-cloven hoof. They bear the weight on the third digit.

Foot structure affects how an animal walks. Humans use the plantigrade style of walking. We put our entire foot down on the ground and roll from heel to toe. Bears are also plantigrade. Canids and felids walk on their toes and are called digitigrade.

The pads on a mammal's feet absorb the shock of running and jumping, and provide traction. If we look at a gray squirrel's front foot we see three different types of pads: toe pads, plantar pads, and metacarpal pads (on the front feet) or metatarsal pads (on the hind feet). In canids and felids, plantar pads are fused to form one large pad. In ursids (bears), the plantar and metatarsal pads are fused to form a large pad.



Tracking Terminology

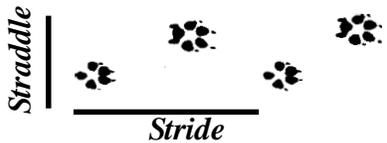
Now that you know a little more about foot structure, let's look at some terms used in tracking wildlife. A **track** is the imprint of a single foot. A **track pattern** is a series of tracks which shows the sequence of an animal's steps. A **trail** is a long line of tracks showing an animal's movements and behavior.

When you spot a trail of animal tracks, it's a good idea to draw the tracks and trail on a sheet of graph paper. Draw the tracks to scale if possible. Next, stretch a piece of string down the center of the trail pattern to indicate the direction of travel. Then measure the length and width of individual tracks. **Length** is measured from the front edge of a toe pad print to the back

end of the track. Do not count the claws in measuring the length, but do measure how far the claws extend beyond the toe pad. Measure the **width** at the widest point of the track.

To measure the **stride**, measure the distance from one track to the next track made by the same foot. When recording stride, measurements must be taken from the same point on each track. The stride includes two complete walking steps.

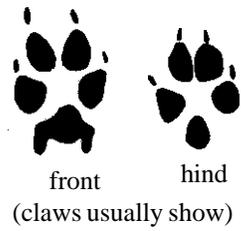
Straddle is a measurement of the width of the track pattern. It is measured at the widest part of the track pattern, perpendicular to the trail. As animals travel faster, the straddle decreases, whereas the stride increases.



Here is a formula to help you record track information: **f5(4) H5(4) co**. This is the formula for a black bear track. The lower case “f” represents the front track which normally shows 5 toes, but may only show 4. The “H” represents the hind track which normally shows 5 toes, but may only show 4. The lower case “f” implies that the front track is smaller than the hind track (capital H). co=claws often show, C=claws usually show, cr=claws rarely show. If there is no “c” in the formula, it means the claws do not show. This formula applies to the track as it appears on the ground, not to foot anatomy.

Tracks are just one of many types of animal sign that can be used to identify wildlife. As a nature detective, you must look at all possible sign. Additional sign to look for include: geographic location (a polar bear in the desert – no way!), season, habitat, ground surface (sand, snow, or mud), scat, gnawed or chewed branches, and fur. By looking at all the evidence, you can form a mental picture of the animal you are tracking. Check out the WILD kids 4 – 6 for more information on animal sign.

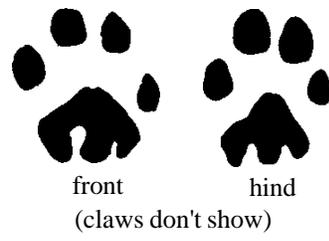
Write a formula for each set of tracks.
(All toes show in track unless otherwise stated)



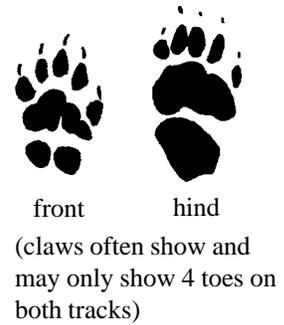
1 _____



2 _____



3 _____



4 _____

Make Spud animal track stamps

First, cut a potato in half. Cut lengthwise for longer tracks. Draw track pattern on the cut side of potato. Cut around track pattern so that the track is raised. Make one front foot and one hind foot stamp. Dab potato stamp in ink pad or poster paint to make tracks. Using the following information, make a trail of animal tracks on a long sheet of butcher paper.

Use the following information to make your track stamps:

Mountain lion tracks: front foot is 3 1/2 inches long and 3 1/2 inches wide. Hind foot is 3 inches long and 3 inches wide. Formula: F4 h4. The walking straddle is 8 inches. The walking stride is 40 inches.

Coyote tracks: front foot is 2 1/2 inches long and 2 1/4 inches wide. Hind foot is 2 1/4 inches long and 2 inches wide. Formula: F4 h4 C. Walking straddle is 5 inches. Walking stride is 30 inches.

Answers: 1) Coyote: F4h4C, 2) Raccoon: f5H5co, 3) Mountain lion: F4h4, 4) Striped Skunk: f5(4)H5(4)co.