



WILDLIFE TRACKING IN VERMONT

Many facts can be learned about wildlife through the study of their tracks and signs. Whole stories unfold on the clay at a common watering place stream-side, or in the moist sand on the lee side of a wild point on the lakeside, and almost anywhere on the winter's snow.

A single track or short series of tracks usually does not tell much about the maker of them. But anyone interested enough in wildlife to carefully study tracks and signs (scats) can learn a good deal about individual animals as well as relationships between species.

Some creatures such as deer and beaver have distinctive tracks, but other animals' prints may be quite similar and confusing. Superimposed tracks make tracking more of a challenge. Often the forefoot imprint is partially obscured when a hind foot steps into the vacated print as the animal's foreleg moves ahead. This characteristic is particularly true when animals walk. More confusion is evident when patterns of prints vary considerably for the same animal. The muskrat, for example, may place his rear foot behind his forepaw print, over the forepaw print, or ahead of the forepaw print all on a very short walk. Then on some occasions he carries his tail just off the ground, and does not leave a trail mark. Usually the wormlike drag of his tail on the edge is the most common identifier.

MAKING CASTS, AN AID TO TRACKING

Making plaster casts of tracks can be fun and even profitable as a craft. Interesting conservation pieces for the home can be made from them, unique lamp bases, paper weights and ash trays, to name only a few. Edges can be easily worked to a smooth finish which creates contrasting self-frames against the leaves and ground on which the print may have been made. Metallic paint or stains can be applied when the cast has dried.

Negative Casting

Here are a few basic rules to follow:

1. Always put plaster into the water, never put water into dry plaster.
2. Stir plaster smoothly and steadily, NOT violently which introduces air bubbles. Consistency of plaster for making casts of tracks should be similar to heavy cream without lumps or air bubbles. If

bubbles form on the top, drag a blotter or piece of newspaper lightly over the wet surface to remove them.

3. Pour plaster beside the track so it will flow gently into it. Mix a big enough batch to surround the track at least 2" on all sides. The finished cast should be at least ½ inch thick in the thinnest area.
4. Allow sufficient time for the plaster to set hard. You might even pick up the cast when it is placed on wet mud on your return trip, if possible. If you are in a hurry, allow ten minutes and then dig under the cast from a distance, taking mud and cast together. Later, when the plaster is dried, the dirt can be washed from it.

Most plaster of Paris today is sold as "painter's plaster" and has some acetic acid in it to slow down setting time. If you find the plaster setting too quickly, often the case on dried mud or clay, add vinegar (acetic acid) ½ teaspoon, to slow down the setting action. If your cast shows folded lines you will know the next time that you will do better under similar conditions by adding some vinegar for a smoother pour or, the problem may have been caused by the plaster slurry being too thick when poured.

5. In order to make satisfactory casts from tracks in snow, it is important to bring down the temperature of the water used for mixing the plaster to near freezing. This can be done by dissolving snow in the water. Be sure the snow is completely dissolved before adding the plaster.

For frozen tracks in crust or ice, pour the slurry as described for mud tracks. On dry snow when temperatures are below freezing, take a small, folding, mouth blow atomizer, available from artist suppliers, and fog the water into and around the track. Carefully spoon or pour the cold-mixed slurry directly into the track.

Partial freezing of the damp, set plaster will not necessarily ruin it, but it will weaken it. It is a good idea to wrap rags around the freshly lifted cast before putting it in your pack. When you get it home, let it dry slowly in a cool place.



6. In sand or dry, fragile earth situations, regular table salt lightly sprinkled in the track and around it will make a "quick set" occur before the track breaks up. In this instance, pour the plaster rapidly and directly into the track as low and close to the track as possible.
7. Make it a practice whenever a track is picked up to let dirt which adheres to the plaster remain on it until completely dry, a day or two later. A soft brush or gently rubbing with a finger tip or cotton swab while blowing on it, will clean the cast satisfactorily. Or hold it in a stream to remove stubborn sakes of dried mud. Let it dry again. You now have a completed negative cast.

NOTE: Hard cured plaster when briefly soaked in water again may be worked easily with a saw, rasp, knife or plane.

All tools used in wet plaster should be cleaned immediately prior to its setting to avoid serious rust problems.

Making the Positive Cast

The cast made in the field by steps outlined above is a negative cast – opposite to the way you observed the track in nature. To get a positive cast like the track observed, first paint the dry original cast with shellac cut 50/50 with alcohol. It will sink right into the plaster and seal it. Give it another coat. When it is thoroughly dry, wipe the whole surface of the negative cast with any light oil, using a soft brush or cloth. Fill undercuts with oily tissue paper or plastilene to prevent the new pour from locking to the first cast when the new plaster sets. (A one-shot positive can be made ignoring all undercuts. Then, the negative is scored and carefully broken away and picked out leaving only the positive intact.)

The negative cast has been thoroughly sealed, wiped over with a light coating of oil and has been double checked to be sure all undercuts are filled and tamped smooth. You are now ready to make the positive cast. Mix another batch of plaster and pour it over the negative cast as you did over the original track. A strip of cardboard held together with tape or paper clips will serve to make a neat, effective dam above and around the negative cast. Pour the positive to a level which assures at least ½ inch thickness in the thinnest areas. When set, the two casts should separate without problems. If tooling is to be done on the final casting, work it over now while the plaster is set but still damp.

Finishing the Cast

After the positive cast has dried, it should receive one 50/50 seal coat of shellac and alcohol. Wood stain may then easily be applied to provide attractive color. Add a wax, varnish, or lacquer finish coat to give a quality look to your creation.

Perhaps a pleasing antique metal finish may be desired. For this effect, first paint the whole casting with one or two coats of metallic paint, aluminum, gold, or copper. When these coats have dried, give the casting a light, rag wiping of contrasting oil paint. The latter remains in the small crevices and takes away the flashy look giving the casting the appearance of fine antique metal – black for silver, brown for gold and “terre vert” or green for copper.

Reference books for tracking:

Handbook for Boy Scouts. Boy Scouts of America

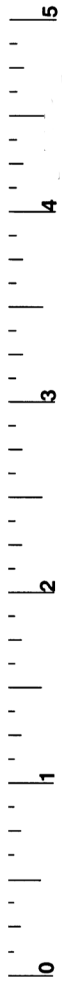
Field Guide to Animal Tracks. Murie, Houghton-Mifflin Company.

Wildwood Wisdom. Jaeger, MacMillan



Prepared by
Robert Candy
Information and Education Section
Vermont Fish & Wildlife Department

Images: Encyclopedia of Animals



Track Pattern

Track Pattern

White-Tailed Deer
2 1/2" - 3"

Moose
4 1/2" - 5 1/2"

H F

Dog 2 1/4" - 4"

H: 2 1/4" F: 2 1/2"

Coyote

H: 2" F: 2 1/4"

Red Fox

H: 1 3/4" F: 1 1/2"

Gray Fox

H F

Lynx 3"

H F

Bobcat 2"

House Cat 1 1/8"

H: 5" F: 1 1/2"

Snowshoe Hare

H: 4" F: 1"

Cottontail Rabbit

H: 2 1/4" F: 1 1/2"

Gray Squirrel

H: 5/8" F: 1/4"

White-Footed Mouse

Crow: 2 1/2"

Turkey: 4"

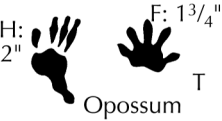
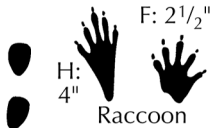
Ruffed Grouse: 2"

Tracks Not To Scale

Tracks will show considerable variation depending on ground condition (snow, sand, mud, dust, etc.) and movement of animal.

F: Front Track
H: Hind Track
T: Tail marks may be present

Track Pattern



Track Pattern



Animal Tracks Pocket Guide



Vermont Fish and Wildlife Department

1 National Life Drive, Davis 2
 Montpelier, Vermont 05620-3702
www.vtfishandwildlife.com

