

Alaska's



Wild Wonders

Trek on in and learn about tracks!

Welcome to our second issue of Alaska's Wild Wonders, a magazine for kids about animals, plants and all things wild in Alaska. In this issue, you will learn all about wildlife tracks!

Did you know you can learn much more from a track than just the name of the animal that made it? This magazine will help you learn how to read tracks. We'll explore an "animal crime scene," learn some common Alaskan animal tracks and learn how biologists and others use tracks to help find animals and estimate wildlife populations. Read on and learn to become a track detective!

Wildlife Hunt:

Find this little track on each page. Can you guess which animal it belongs to? Hint: It's a "hairless" bird.



Who do you think went strolling along this creek?



In This Issue

Track Detective	p. 2-3
Tracks and Trails	p. 4-5
Tracks at Work	p. 6
Trails Tell Tales	p. 7
Tracks in Action	p. 8



Can you see tracks in the mud? Mink, beaver, otter and vole all used this river bar.

Become a track

Tracks and other evidence that animals leave behind can provide us with a lot of information. Just like how you must first learn the alphabet before you can read words and then stories, with tracking you first learn about tracks and their parts. Then you learn how animals move, and add in information about habitat and animal behavior. When you can fit all those pieces together, you can find out which animals passed through an area and what happened. When tracking, think of the five “W” questions that news reporters ask: Who, What, Where, When, Why? Asking those questions will help you uncover the stories tracks can tell.



Lynx are members of the cat family; cat tracks show four toes on front and hind feet.

Who? Who was in the area? Although some tracks may look similar, every wildlife species leaves a distinct track. For example, members of the cat family have four toes on their front and hind feet and rarely show claw marks in their tracks. Other major animal groups like weasels, canines, rodents, hooved animals, birds, and bears leave very different tracks. Learning what different tracks look like will help you identify who's been there.



The arrows show the direction these snowshoe hares traveled. If you wanted to find a hare, you would need to know that hares bound, meaning their front feet land and then their hind feet pass over the front feet. The hind feet of a hare show up in the front of a track – and they are huge!

What? What were the animals doing? Reading a string of tracks can help tell you. Was the animal walking or running, chasing something, lying down, or doing something else? This can be difficult to tell and may require you to follow the tracks and carefully observe changes.

Where? Where are you? Look around at the habitat and think about the animals you would expect to see. Which way do the tracks go?



In this picture you can see hare scat, twigs cut at a 45 degree angle, and bark chewed off of the willows – all signs of snowshoe hare activity.

When? When did animals visit here? In order to age tracks you must be a keen observer of the weather. When was the last rain or snow? Is the wind blowing? Has the sun been shining? Has the temperature been warm enough to thaw the ground or cold enough to freeze it? Maybe both?

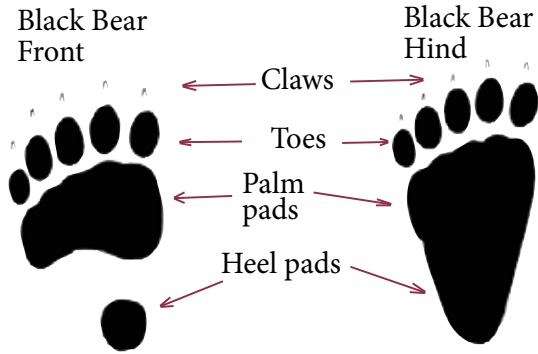
Why? Why were the animals there? Different kinds of animal sign include tracks, scat (feces or poop), hair, chew marks, feathers, blood, bones, nests, dens, and more. Examining all animal sign in the area and looking at the entire scene can help piece together what happened.



Look at these grizzly bear tracks in the sand. They look old because they have rounded edges and look fuzzy, not sharp. But are they old? It's hard to know. A strong wind could round and cover tracks very quickly.

detective!

Parts of a Track



Notice that the palm and heel pad are fused on the hind foot – that's just like our feet!

How many toes are showing? Some animals have four toes, some five, some even have five on the hind feet and four on the front feet. Some birds show three toes and some show four. There is a lot to learn because there are so many different kinds of tracks.

Are there claws showing? Most animals show claws in their tracks but some do not. For example, members of the cat family have retracted claws, which hardly ever show, while members of the dog family typically do show claws in their tracks.

What's the size of the track? Size is very important. Canines have some similar characteristics in their tracks but fox, coyote, and wolf have different size tracks depending on the size of the animal. The same with weasels such as mink, marten, wolverine, ermine, and otter. Think about the size of vole tracks!

Plantigrade: Planti-what? This just means walking with your heel on the ground. Heavy back-ended animals such as humans, bears and beavers walk this way. Ask your parents if they have ever gotten plantar fasciitis, a common foot problem for plantigrade humans.



Ways of Walking

Digitigrade: Digita-huh? Simply put, it means walking on your toes (your digits). When you walk on your toes you increase the length of your legs which makes you faster. Animals such as dogs and cats walk on their digits.



Unguligrade: Unguli-who? Hooved animals like moose and caribou take locomotion to the extreme and walk on their toe nails (which are the hooves). Foot bones are incorporated into the legs, which are very long. Ungulates are generally very fast animals.



Gait

A gait is the way an animal moves. Knowing different gaits helps with track identification.

Walk: An easy pace where each foot moves independently. Most animals walk sometimes.



Think! In walks and trots every track is actually two tracks. Why?

Trot: Faster than a walk. Opposite side front and hind legs move together. Canines and voles usually trot.



Lopes and Gallops (Weasels): These are the fastest gaits for animals. All feet are landing independently of each other. All animals can use this gait.



With these gaits, sets of tracks are in distinct groups with a space between groups.

Bound and Hops (Rodents and Hares): An animal bounds or hops if it pushes off with both hind feet at the same time. A bound is when the hind feet land exactly in the front tracks or past the front feet. Sometimes the term hopping or jumping is used as a substitute for bounding.



This picture shows a squirrel's hind feet landing in front of its front feet.

Tracks & Trails

Ermine Front & Hind:

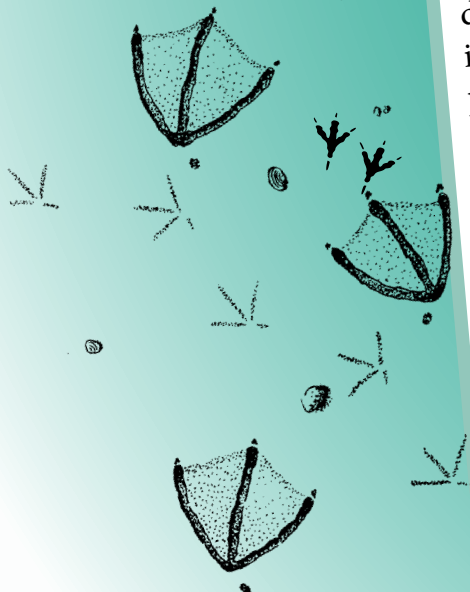
Length= .8-1.3 in.

Width= .5-.6 in.

Short-tailed Weasel are commonly called ermine or stoat. Like other members of the **Weasel Family**, the tracks have five toes on both the front and hind feet. Ermine move by bounding, with hind feet often landing in the exact same place as the front feet, especially in snow. The tracks may disappear into a tunnel as the ermine burrows into the snow in pursuit of prey, such as mice or voles. Its closest relative in Alaska is the least weasel. Other members of the weasel family include mink, otter, marten, fisher and wolverine.



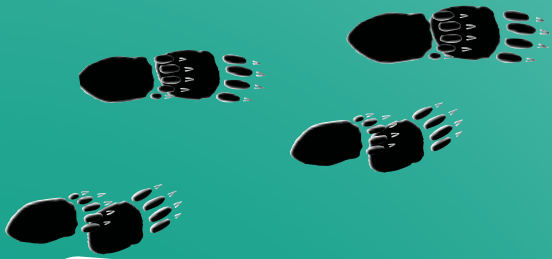
Bird tracks come in different shapes and sizes. The difference between bird species isn't always reflected in the tracks. Birds usually leave behind more delicate prints in the sand, mud or snow. Consider the type of habitat you're in first. What types of birds live here? Ducks, geese and gulls have three long toes that all face forward with webbing in between. The webbing may not show in the track. Shorebirds, such as sandpipers, have three toes pointing forward and a fourth smaller toe that angles off to the side. For perching birds, such as songbirds, the fourth toe points straight back allowing it to wrap its feet around a branch.



Larger bird prints: Duck species

Small prints: Sandpiper species





Porcupine Front:
Length= 2.3-3.3 in.
Width= 1.5 in.

Porcupine Hind:
Length= 2.8-4 in.
Width= 1.5-2 in.



Porcupine tracks have four toes on the front feet and five toes on the hind feet, which is true for other members of the **Rodent Family**. The claws show clearly, and sometimes you'll see the bumpy texture of the heel pads. These rough pads are helpful for gripping when climbing trees. Do you see how the feet point in slightly? Porcupine waddle when walking. Sometimes, drag marks are left behind each set of tracks.

Moose are the largest member of the **Deer Family** in North America. Moose, known as unguligrade animals, walk gracefully on two toes/nails called hooves. When tracks are left in snow or mud deeper than an inch or when running, the dewclaws (two additional toes) can be seen trailing behind the hoof. This helps to support its tremendous weight (600 to 1100 pounds). A moose's walking gait shows in the tracks as an alternating pattern, with the hind feet landing close to or on top of the front tracks. Moose are huge and so are their tracks!

Moose Front & Hind:
Length= 4-7 in.
Width= 3-6 in.

Gray Wolf Front:
Length=4-5.5 in.
Width= 2.5-5 in.

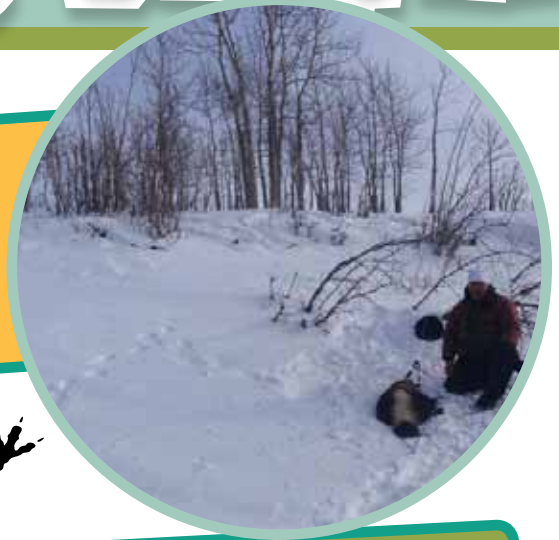
(Hind print is slightly smaller)

Gray Wolf tracks, like the tracks of all members of the Dog or **Canid Family**, show four toes on each track with claw marks extending in front of the toe pads. It can be a challenge to differentiate between a wolf track and someone's large pet dog. Wolves are digitigrade animals. A walking or trotting wolf leaves an alternating track pattern and the hind tracks sometimes land directly on the front tracks. This is called direct registering. When a wolf begins to move faster and gallop, the track pattern begins to curve into a C-shape, as the hind feet move off to one side.



Tracks at Work

Trappers, hunters and professional trackers all use tracks to find animals and to learn about animal interactions. Biologists use tracks to find animals and learn about them, and also sometimes to estimate numbers of animals.



Estimating wildlife populations

Let's say wildlife biologists need to determine how many wolverines live in a certain area. Wolverines are hard to find, but one way to count them is to fly in a small airplane with skis after a snowstorm to look for fresh tracks. Once the biologists spot wolverine tracks from the air, they follow them to determine how far the wolverines moved. Using that measurement, the biologists use advanced math to determine the chance they might find that same track again. With that information, they can then use a complicated formula to estimate the size of the wolverine population. It may sound like magic, but it actually works!



Finding animals

The trapper, shown above, used tracks to determine a good location to set a trap for this wolverine. Animals can be hard to see in the wild, but if you know what their tracks look like, you can greatly increase your chance of finding them whether you are hunting, trapping or simply studying animals. Research biologists used tracks to capture the wolverine shown in the box below. Next to the wolverine is an example of what its tracks look like in snow.

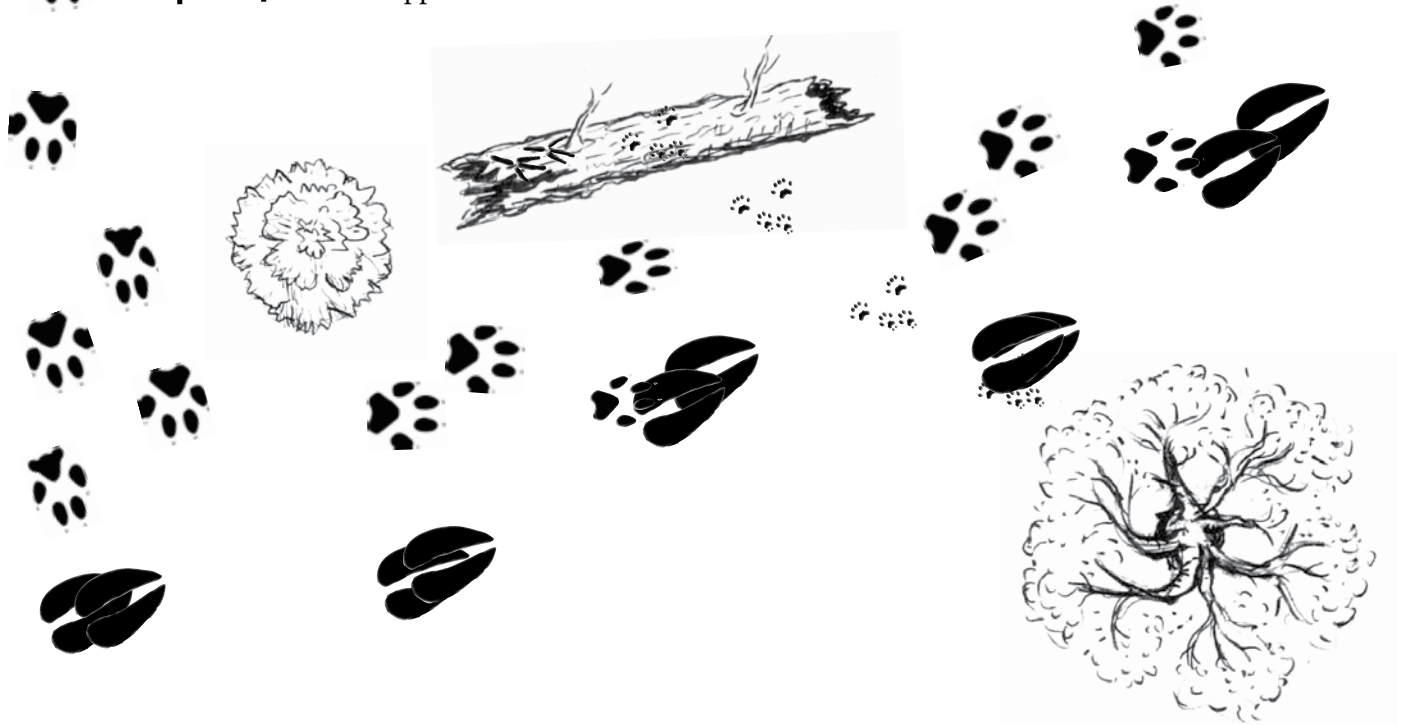


Do you like the tracks in this magazine? Many are from www.bear-tracker.com, an excellent website all about tracking. Check it out!

Animal Trails Tell Tales



Scale= approx. 5 inches

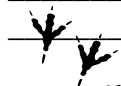


Which animals are represented by the tracks above? What is the name of the gait each animal is using? Did any gaits change or did they all stay the same?

Animal _____	Gait _____
Animal _____	Gait _____
Animal _____	Gait _____
Animal _____	Gait _____

In what order did the animals leave these tracks? _____

What happened here? What is your interpretation of this scene? _____



On Your Own- On your own piece of paper using your track and sign knowledge, create a realistic scenario in which animals have an interaction. Be creative. Show your track scene to a friend or parent and see if they can figure out what happened.

Answers - Turn upside down to read!

Animal Trails Tell Tales: 1) A squirrel bounded or hopped from the tree to the fallen log. 2) Then a moose walked by from left to right. 3) Then a wolf walked into the picture from the top, smelled fresh moose and galloped off after the moose. 4) A raven also landed on the log at some time.
Wildlife Hunt: This track is from a bald eagle.
Matching Tracks (p.8): Tracks on left in order - caribou, porcupine, wolf, bear, raven, moose
Crossword Puzzle (p. 8): 1: Bounding 2: Track 3-Down: Straddle 3-Across: Stride 4: Scat 5: Sign 6: Gait 7: Trail 8: Register



Tracks in Action

Head outside and see what you can find!

A good time to go tracking is right after it rains or snows. Walk through a local park, a natural area, along a trail or the edge of a lake or river. Take a camera, notebook, ruler, magnifying lens and a field guide to identify animal tracks. Here are a few questions to help you in your discoveries:

How many different tracks can you see? How many animal species are represented?

Which animal made the biggest track? Which made the smallest track?

Did any of the animals seem to be running, based on track measurements?

Did you see other animal sign (browse, scat, fur, feathers, etc.)?

Did you observe any evidence of animals interacting with each other?

Consider the habitat. Did you find any animals you didn't expect to see in that habitat?

Why might animal tracks be useful for trappers, hunters or biologists?



Wolf track in snow (above), moose track in dirt.

Matching Tracks

Draw a line to the animal and its matching track.

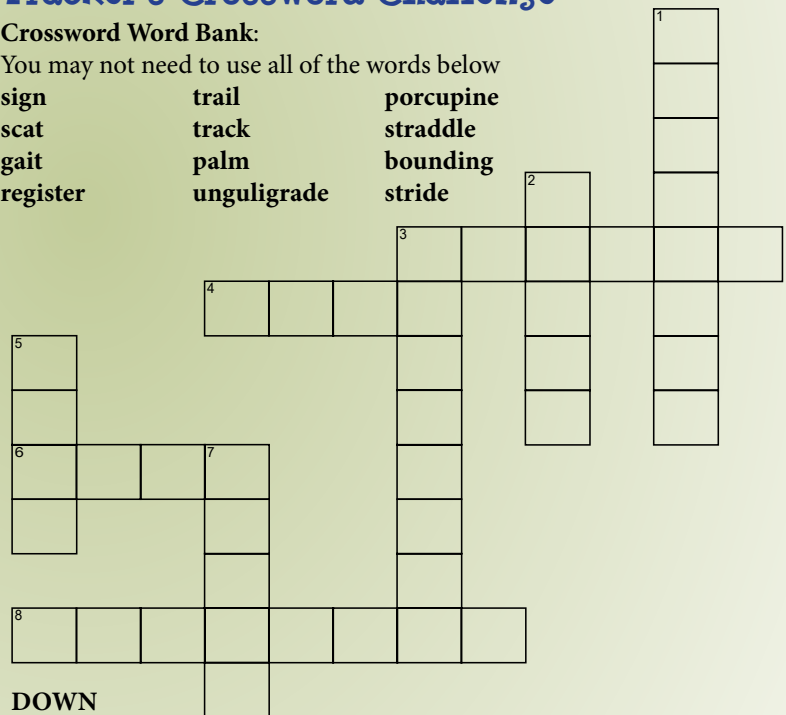


Tracker's Crossword Challenge

Crossword Word Bank:

- | | | |
|----------|-------------|-----------|
| sign | trail | porcupine |
| scat | track | straddle |
| gait | palm | bounding |
| register | unguligrade | stride |

You may not need to use all of the words below



DOWN

- A gait of four-legged animals in which the two hind feet land at the same time, usually registering in front of the forefeet.
- The impression left on the ground after an animal passes by.
- The total width of the trail, all prints considered.
- Any evidence an animal leaves behind that helps us determine who it is.
- A string of tracks and other sign left behind by an animal.

ACROSS

- The distance from the rear of one track to the rear of the next track made by the same foot (the length of one complete step).
- Solid or semi-solid excrement; feces.
- The way in which an animal moves.
- To leave a mark- referring to a foot, claw or other part of an animal's body.

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