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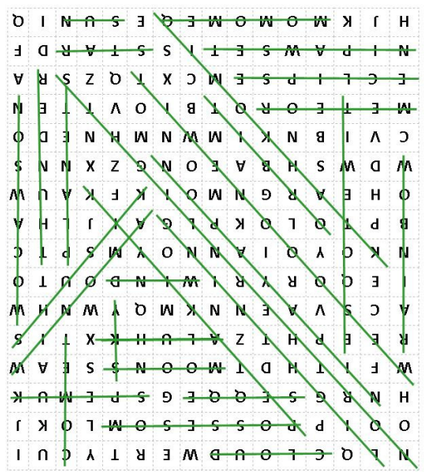
Welcome Spring!

Puzzle Anwsers



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Siqon - March 2020

Clarissa Sabattis – Tribal Chief
Susan Young - Editor

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Who Goes There?

Animals are around us in the woods, but we often don't know they are there. They lurk in the thick brush, hide in the trees or are nocturnal and only come out at night. You sometimes see the scat they leave behind, but if conditions are right, you may stumble upon some tracks. Animal tracks in snow, mud, sand or any other soft substrate are easier to spot and you may have to look up and look around you when tracking to find them. Take some time to examine the surrounding environment - you may find other signs of the animal or additional clues to help you ID the print. Use the tips and tricks below to figure out what animal just crossed your path.

Mountain lion track in mud

Tracks in snow

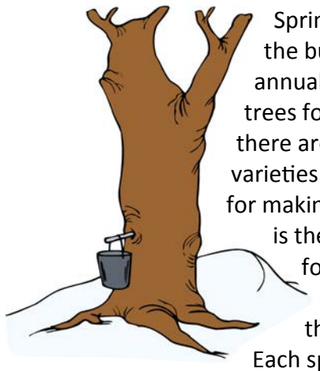
Understanding Walking Patterns
The first thing you should look for when you find an animal track is the track pattern. There are four unique track patterns which will help you narrow down the group of animals that are responsible for the print.

Zig-Zaggers (Perfect Walkers): Perfect walkers walk very carefully to conserve energy. Their rear paw/hoof will land in the spot where their front paw previously fell. This gait leaves a zig-zag pattern that is easy to spot. Deer, moose, fox, coyote, bobcat are perfect walkers.

Waddlers: Waddlers appear to move one side of their body and then the other side when they walk. Their rear foot does not land in the print of front foot. Their track is comprised of four prints. Bear, skunk, woodchuck, raccoon, muskrat, beaver, porcupine are waddlers.

Continued page 4

27 Trees to Tap for Syrup



Spring rolls around and out come the buckets and taps to begin the annual ritual of tapping maple trees for syrup. But did you know there are at least 27 different varieties of tree that can be tapped for making syrup? While sugar maple is the most common tree used for maple syrup, there are 10 different species of maple that can be used for syrup. Each species of maple produces a slightly different flavor. You'll be surprised to know that the differences in flavor has more to do with local and seasonal factors than the species of maple tree used.

The flavor of maple sugar is largely determined by the unique climate where the trees were, the weather that particular year and the time of year the sap was boiled. With all those variables no two maple syrups are exactly alike. That explains why Maine syrup is different from Vermont syrup and so on.

But maple is not the only tree species to produce sap suitable for making syrup. Check out some of the other trees that can be tapped for sugaring.

Sugar Maple (*Acer saccharum)* is the first choice of many due to it's high sugar content, best yield and longest season.

Birch has been used by traditional peoples for centuries and is just starting to be commercially produced in the US as it requires more energy to produce than maple. Birch requires 110 gallons of sap to be boiled down to make a single gallon of syrup (Maple takes only 40 gallons). Traditionally birch syrup has been used as a sweetener, fermented in liquors, wines and ales, made into vinegar and has a number of uses in traditional medicines.

Birch sap is more acidic than maple, and has the tendency to eat away at traditional maple sap buckets. These days most people use plastic tubing and spouts, historically it would have been collected using sumac or elderberry taps and bark or wood buckets.

Mahqan
Maple Syrup

Trees to tap:

Sugar Maple
Black Maple
Red Maple
Silver Maple
Norway Maple
Boxelder
Big Leaf Maple
Big Tooth Maple
Rocky Mountain Maple
Gorosoe
Paper Birch
Yellow Birch
Black Birch
Gray Birch
European White Birch
Alder
Black Walnut
Butternut
Heartnuts
Buartnuts
English Walnuts
Elm
Sycamore
Linden(Basswood)
Ironwood
Hickory
Palm

POTENTIALLY TOXIC - DO NOT TAP

Black Locust
Smoke Tree
Saghorn Sumac
Buckthorn

For more information about other tree species for syrup and tips for sugaring check out:

https://practicalselfreliance.com/trees-species-tap-syrup/

Natural Dyes

Weaving and embroidery materials including porcupine quills and moose hair were often traditionally dyed with water-soluble dyes. These dyes were sourced from natural organic materials and enhancing techniques are largely unknown. Today, alum and other mordants can be used to fix the colors since they are often faint in comparison to synthetic dyes. Dyed quills are often utilized to adorn, but not limited to, birch bark baskets, clothing, pipe stems, and earrings through the use of quill work embroidery, plaiting, and weaving techniques. Below is a list of common organic materials that were used for dyeing purposes.

Yellow
- Sweet (myrica) gale seeds
- Goldthread leaves, stalks, and roots
- Ash bark

Black
- Dark blue wood found under decayed portions of old logs and salt water
- Fir bark
- White (silver) maple and elm mixed together
- Purple made from silver maple and hardwood ashes mixed together

Blue
- Rotten wood of gray birch
- White (silver) maple (light blue)
- Beech tree and hardwood ashes mixed together - boil bark of beech tree for one hour, add a tablespoon of hardwood ashes that were previously put into two quarts of boiled water

Green
- Princess pine
- Moosewood - boil until soft then crush it and boil again for about 30 minutes

Red
- Red (Clayton's) bedstraw roots
- Hemlock bark (red-brown) - cut the root of a hemlock tree near the surface of the ground. Scrape off the outer bark and boil the remainder until the water turns red
- Alder bark (dark red or brown)
- Elder bark - chew elder bark and place in a pot with a little water, keep the water almost boiling for approximately nine to ten hours

Purple
- White (silver) maple - boil the bark for 30 mir to an hour and add alum to enrich the color

Special thanks to Wabanaki Public Health for the use of this article
www.wabanakipublichealth.org

Recycling Paint

No matter how careful we are, we always end up with extra paint after completing a project. Now, we have a quick easy way to dispose of that paint and protect the environment - better yet it's ***free***!

PaintCare.org is a nationwide program that collects all unused, paint and stain for proper disposal. All you need to do is take it to a registered drop off location and you're done!

More information about the program as well as drop-off locations can be found at **www.paintcare.org**

In the Houlton area, take paint to **Sherwin-Williams** at 2 Smyrna Street or **S.W. Collins** at 57 Bangor Street!

Find these sky related words in the puzzle at right

Aluhk	Cloud
Amoniw	Orbit
Esqotewit	Meteor
Kisuhs	Sun
Ktahkomiq	Planet
Monomeqe	Lightning
Monoqan	Rainbow
Nipawset	Moon
Nipayapon	Northern Lights
Petakiyik	Thunder
Possesom	Star
Seqqe	Eclipse
Spemuk	Sky
Wesoqonewit	Comet
Wocawson	Wind

Maliseet Word Search

N	L	Q	C	L	O	U	D	W	E	R	T	Y	C	U	I
O	O	I	P	P	O	S	S	E	S	O	M	L	O	K	J
H	N	R	G	S	E	Q	Q	E	G	S	P	E	M	U	K
W	F	I	T	H	D	T	M	O	O	N	S	S	E	A	W
R	E	E	P	H	T	Z	A	L	U	H	K	X	T	I	S
A	C	S	V	A	E	N	N	K	M	Q	Y	W	N	H	W
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N	K	O	Y	Q	I	A	N	N	O	Y	M	S	P	T	C
B	P	T	O	L	O	K	P	L	G	A	I	J	L	H	A
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N	I	P	A	W	S	E	T	I	S	S	T	A	R	D	F
H	J	K	M	O	M	O	M	E	Q	E	S	U	N	I	Q

6 Cleaning Products You Should Never, Ever Mix

These dangerous duos could leave you coughing and wheezing – or even explode!

With all the extra safety precautions we're taking for the corona virus known as COVID-19, we thought this was a good time to remind folks how to clean their homes safely and not mix cleaning supplies. Check out this article from Good Housekeeping.com

When you're faced with a tough cleaning job, it's easy to get frustrated - and tempting to get creative with how you combat it. But before you reach for every cleaning product under your sink and start playing chemist, take caution. "People often think that if one product works, mixing it with another one will make it even better," says Carolyn Forte, Director of the Good Housekeeping Institute Cleaning Lab.

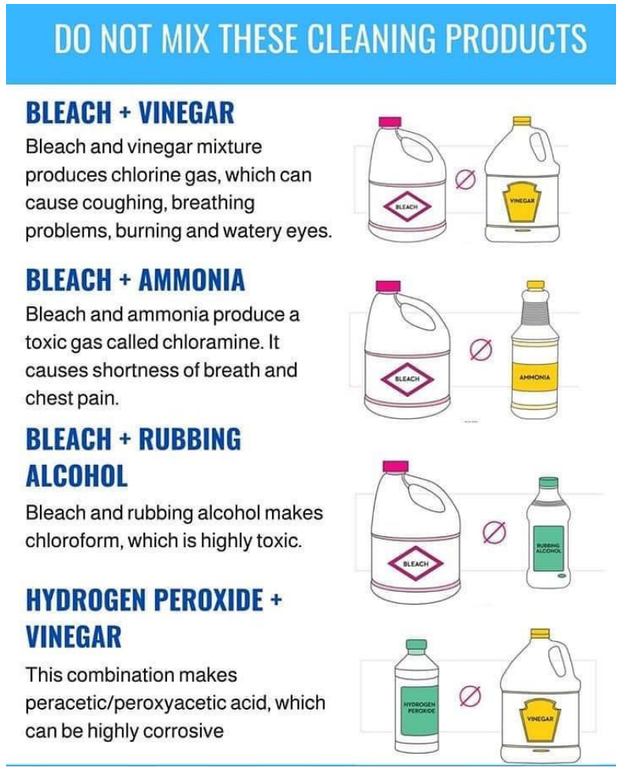
But here's the scary truth: "Certain products, which are safe when used alone, can sometimes cause unsafe fumes or other chemical reactions when mixed with other products," says Nancy Bock, Senior VP of Education at the American Cleaning Institute. And even if your ad-hoc cleaner combo isn't dangerous or toxic, you can never be sure what effect two products can have on a surface or fabric when combined.

Always read the warning and ingredient labels on cleaning products - and never mix these:

1. BLEACH AND VINEGAR: The combination sounds like it'd be a powerful disinfectant, but the two should never be mixed. "Together, they produce chlorine gas, which even at low levels, can cause coughing, breathing problems, and burning, watery eyes," says Forte.

2. BAKING SODA AND VINEGAR: We're calling you out, Pinterest: Although these pantry staples are handy on their own - both baking soda and vinegar can help clean all over the house - you should skip any DIY cleaner recipe that involves this not-so-dynamic duo. "Baking soda is basic and vinegar is acidic," says Bock. "When you put them together you get mostly water and sodium acetate. But really, just mostly water." Plus, vinegar causes baking soda to foam up. If stored in a closed container, the mixture can explode.

3. BLEACH AND AMMONIA: Bleach and ammonia produce a toxic gas called chloramine. "It causes the same symptoms as bleach and vinegar - along with shortness of breath and chest pain," says Forte. Many glass and window cleaners contain ammonia, so never mix those with bleach.



4. DRAIN CLEANER AND DRAIN CLEANER:

"I would never recommend mixing two different drain cleaners or even using one right after the other," says Forte. "These are powerful formulas, and could even explode if combined." Use one product according to package directions (typically, only half a bottle is needed per treatment). If it doesn't work, don't try another product. Instead, call a plumber, Forte says.

Continued page 9

Animal Tracks *(cont'd)*

(photo) Red Wolf Recovery Program

Bounders: Bounders place their front feet down, and in one motion they leap forward by lifting up their front feet and putting their rear feet in the exact spot where the front feet previously landed. Their tracks appear as two paws that fall side-by-side. Otters, weasels and other mustelids are bounders.

Hoppers: Hoppers move by placing their rear feet slightly ahead of their front feet and pushing off so their front feet land first and their back feet land in front. This pattern of leapfrogging is found in rabbits and rodents like mice, red squirrels, and chipmunks.

Identifying Track Characteristics

Finding the track pattern helps you narrow down the animal you are trying to identify into larger groups, but that is only the first step of identification. You need to get up close and personal with the print, examining the details such as the size of each print, the number of toes, and more.

Width/Length: Width and length help you tell the difference between closely related animals. Within the canines, a fox print will be smaller than a wolf print. Be aware that there is some overlap. A wolf pup may have the same size print as an adult fox. In these cases, you need to look for other clues, such as the tracks of the mother wolf or multiple tracks from a litter of fox kits. There also may be scat nearby as well.

Number of Toes: The number of toes is important to tell the major groups of animals apart! Bear have five toes, while canines and felines have four, for example.

Nails: Nails are a huge find when you can see them! Canines tend to leave a nail print while felines don't since they can retract their nails. There is some grey area -- a feline may bring out its nails because it is on alert or a dog won't sink down enough to imprint its nails. Look for additional prints and other tracks to help fill in these blanks.

Depth: Depth is useful when comparing tracks left in the same substrate at the same time. The heavier the animal, the deeper the print it will leave. Be careful when comparing prints from different locations and times. A deer could make a print that resembles a moose because it is walking on mud softened by a recent rainstorm.

Front/Rear: Front and rear paws may have a slightly different size and shape, depending on the animal. Most guidebooks will have measurements for both prints.

Webbing: Webbing is usually found on animals that frequently swim in the water.

Stride and Straddle: Stride and straddle measure the gate of an animal and can be used to distinguish between two very closely related prints. Stride is measured from the heel of one print to the heel of the other print on the same side. Straddle is the measurement of the width of the track from the outside of the right track to the outside of the left track.

Bear Tracks

You can't miss a bear track -- its paw is huge with five rounded toes and a wide heel pad. Black and Grizzly Bear tracks can be hard to differentiate. Geographic location can help narrow down the possibilities.

35. Black Bear: A black bear has short claws and its toes spread out in a curve over its foot pad. Generally going to be smaller than Grizzly Bear paw.

36. Grizzly Bear: A grizzly has long claws that extend out further from their toes. Its toes also are held closer together, forming almost a straight line above the foot pad.

This article and Animal Tracks Identification Guide was written by Kelly Hodgkins and is featured on the greenbelly.com website
https://www.greenbelly.co/pages/animal-tracks-identification-guide?fbclid=IwAR3Wsikxu6IGTW_umMzlRoXHKge4OeqeJm9u-AAzrxH2l5-TqPYiLiaUC3o

6 Cleaning Products You Should Never Mix *(cont'd)*

5. ***HYDROGEN PEROXIDE AND VINEGAR:*** You may have heard that you should spray fruits or countertops with alternating mists of hydrogen peroxide and vinegar, wiping down the surface between sprays. Experts say this method is safe - but don't mix the two products in the same container. Combining them creates peracetic acid, which is potentially toxic and can irritate the skin, eyes, and respiratory system.

6. *BLEACH AND RUBBING ALCOHOL:* Perhaps you've heard of chloroform? You know, the stuff kidnappers in the movies put on rags to knock out their victims? Although it might not actually make you pass out, this combination can be irritating and toxic. Make it a rule to never mix bleach with anything but plain water. "Even other products like window and toilet bowl cleaners can have ingredients, like acids or ammonia, that shouldn't be mixed with bleach," says Forte.

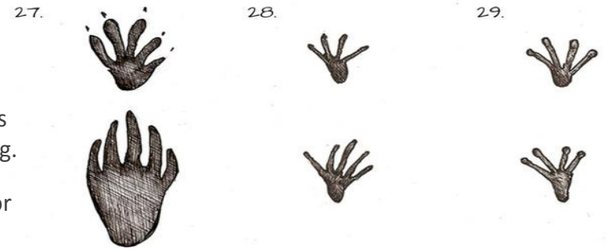
https://www.goodhousekeeping.com/home/cleaning/tips/a32773/cleaning-products-never-mix/

A fond farewell

Cara O'Donnell, Water Resources Specialist left HBMI in January 2020 to pursue another position in the environmental field.

Please join us in wishing her all the best.

Reptile and Amphibian Tracks



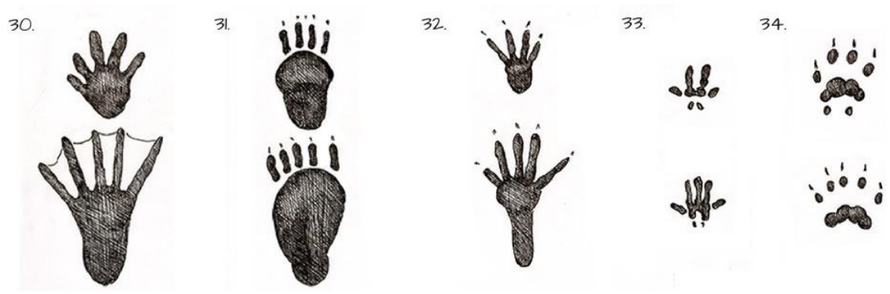
Reptiles and Amphibians have very different life cycles, but they share a similar feature -- they all have long toes that provide extra grip for walking, hopping and climbing.

27. Alligator: The first thing you notice about an alligator track is not its four toes or its foot shape, but the large through its tail creates as it walks. Look for a central trough with pairs of prints on either side. Another key is the size -- alligators have large feet. The front prints have five toes and are wide in the heel while the rear prints are longer and have four toes with a narrow, pointed heel.

28. Lizards: Unlike an alligator, lizards are lightweight and don't leave much of a track. Lizards may leave light scuff from their feet and a small tail drag. The tail drag tends to be straighter and more pronounced than other tail-bearing animals like mice.

29. Frogs: Frogs have four bulbous toes in their front and five in their hind prints. Their front toes point slightly inward producing a "K" shaped print, while their rear toes slope upward and outward. Their belly sometimes appears in the track. They are hoppers with their front feet often landing between their much larger hind feet.

Rodent Tracks



Rodents are a very diverse group of mammals, and their tracks reflect their diversity. You have to think about habitat, body shape, and track pattern as much as the individual prints. All rodents leave behind front tracks with four toes and hind tracks with five toes.

30. Beaver: You can tell a beaver is nearby by the dams they build and the gnawed trees they leave behind. They have webbed hind feet with 5 toes (4.5-7”), but their tracks often are hard to find. You rarely see the four-toed front prints (2.5-3.5”) because the hind print wipes out the front print when they waddle as they walk. And sometimes you don’t even see any prints at all as the beaver’s large tail can wipe out all their tracks.

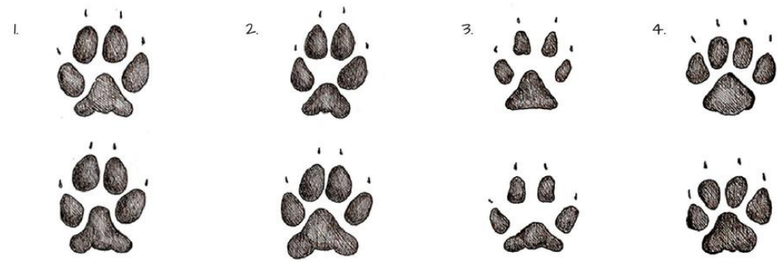
31. Porcupine: Porcupines move slowly and waddle when they walk. They also are climbers and have both big heel pads and long toes with claws. Usually, you will only see their pads in their prints (1-2”) along with an occasional trail drag. These pads have a rough surface that aids in climbing and can be seen in soft mud. Each print points inward because they are pigeon -toed. In winter, porcupines are so low to ground that they leave a deep trough in the snow.

32. Muskrat: Muskrat tracks are hand-like much like the raccoon, but smaller measuring approximately 2-3“. Their prints have five long finger-like toes on their hind foot and four long fingers on their front. Muskrat tracks are found near marshes, beaver ponds, and similar slow-moving waterways.

33. Mouse: Mice, like squirrels, are hoppers. Their larger back feet (0.5-1”) land slightly ahead of their smaller front feet (0.25-0.5”) producing a cluster of four prints. Mice prints are very small may show a tail drag.

34. Squirrel: Squirrels are hoppers with their larger back feet (1.5-2”) landing slightly ahead of their smaller front feet (1-1.5”). Their feet tend to land side-by-side producing a repeating series of four distinct prints. These tracks often meander from tree to tree.

Canine Tracks



Canine prints are distinctive -- the overall shape is oval with four twos and a heel pad that is concave at the bottom. The four toes point forward and are held closely together with the two front toes often lining up side-by-side. There usually are claws visible in the track and they also point forward. Because of the arrangement of the toes and pad, you can draw an "X" through the canine print. When comparing front and rear tracks, the fore prints of all members of the dog family are significantly larger than the hind print.

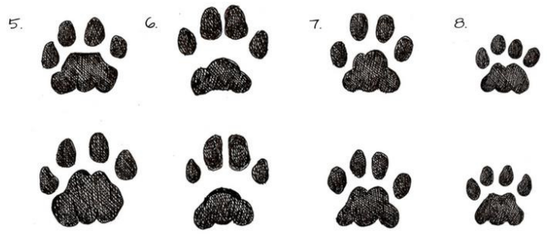
1. **Wolf:** Wolves are among the largest canines, and their paws are the biggest in the group with a long (4”) and wide print.

2. **Coyote:** Coyotes are slightly smaller than wolves and have a print that is more narrow (2.5 to 3.5”) than the wolf.

3. **Fox:** The fox is the smallest canine in the group and have the smallest print (2 to 3”), almost dainty when compared to their bigger cousins. Fox tend to drag their feet and also have more hair in their paws producing a print that is fuzzy around the edges and has a small pad imprint.

4. **Dog:** A domestic dog can have a similar sized print to wolf or coyote making it difficult to tell them apart. If you can find a set of prints, you can usually tell the difference by how the two animals walk. Wild animals like wolves and coyotes tend to walk in a straight line to conserve energy, while dogs zig-zag and circle around quite a bit when they are walking. Domestic dogs also tend to splay their toes, producing a track with toes and nails that are pointing outward. Another difference is the nails -- dog nails are thick and blunt while wild canines leave thin and sharp nail prints.

Feline Tracks



Feline prints have four toes and a heel pad with three lobes at the bottom edges that are shaped like a bubble letter “M”. Cats actually have five toes up front and four toes in the back, but the extra toe up front does not appear in the tracks. Feline prints are as wide as they are long, making them more round in shape than a canine. Felines also have a leading toe much like a person's middle finger. You can draw a "C" through between the pad and toes of a feline print.

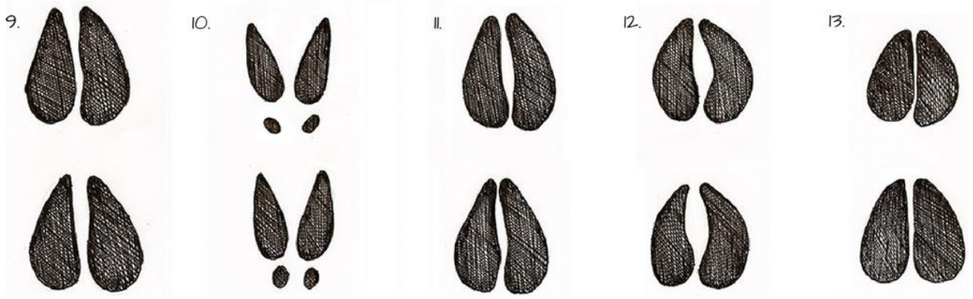
5. Cougar/ Mountain Lion: Among the felines, cougar tracks are the largest (greater than 3"), about the size of the domestic dog.

6. Lynx: Though smaller in stature, lynx tracks are the same size as a cougar, but are not as defined due to the fur around their paws.

7. Bobcat: Bobcats have smaller tracks (2”) that are often confused with coyote or fox. Look for a lack of nails and a round-shaped print to identify the bobcat track from its canine counterparts.

8. House Cat: The prints of a house cat are small (1 to 1.5”). Similar to the domestic dog, the house cat also tends

Hoof Tracks (Large)



Ungulates have a split hoof with two toes that leave a distinct imprint. Ungulates can be divided into two main groups based upon the shape of their toes. One group has toes that curve forming a heart-shaped print, while the other have toes that are rounded and leave a round or even square-shaped print.

9. Moose: Moose are among the largest of the hooved animals and have two toes that curve together into a point forming almost a heart shape print. Moose are heavy and sink down deep into snow allowing the dew claws to sometimes appear in the track. Their tracks measure 5-7” long, about the size of your hand.

10. Deer: Deer, like moose, have two toes that curve sharply together forming almost a heart shape print. The prints are smaller in size than a moose measuring 2-3.5”.

11. Elk: Elk are similar to moose and deer, but their toes are rounder and not as sharply tapered at the tips. The prints measure 3-5”, placing them right in between the deer and moose. Dew claws sometimes appear in deep snow or when the elk is galloping.

12. Bison: Bison also have two toes in their hooves, but their toes are rounder and they print doesn’t taper to a point like the deer, moose and elk. Their print is wide and more round than heart-shaped. It measures 4.5 to 6”.

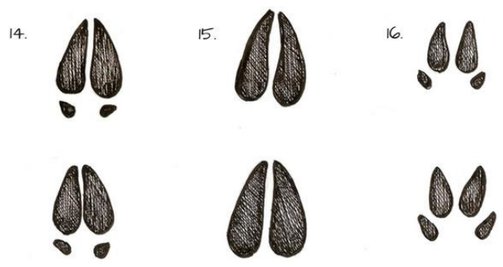
13. Cow: Cow prints are often confused with bison since they share the same round shape and relative size. The easiest way to tell them apart is to know your surroundings. Is there a farm nearby?

Hoof Tracks (Small)

Mountain goats, bighorn sheep and wild hogs have the same two-toed hooves as their bigger ungulate cousins, but the shapes of their hooves reflect their lifestyle and habitat.

14. Mountain Goats: To help them climb, mountain goats have toes that spread when they step, creating a distinctive V shape at the top of their print.

15. Bighorn Sheep: Bighorn sheep have an elongated hooves that are easily confused with those from a deer. In general, the bighorn sheep prints have straighter edges and are less pointed than a deer. They are more blocky and less shaped like a heart.



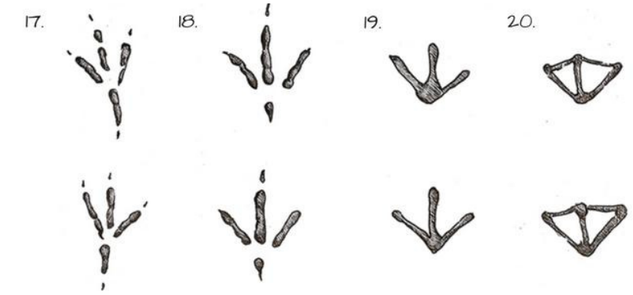
16. Wild Hog: The wild boar track is often confused with the deer since they are about the same size. The shape is the discriminating feature. The boar has toes that are wider, rounder and blunter than the deer and don’t come to a point like the deer. Hogs also have a dew claw that rests slightly outside the print.

Bird Tracks

Bird tracks can be grouped into categories based upon whether they live mainly in trees or on the ground. Tree dweller tend to hop on the ground and leave a pair of prints behind, while ground birds will leave alternating tracks.

17. Crow: The crow has the standard bird track with three thin forward-facing toes and one rear-facing toe. They are hoppers and leave a pair of prints approximately 2-2.5” long.

18. Grouse: Grouse are small ground birds that have a game bird track with only three forward facing toes. They measure about 2” long.



19. Turkey: Turkey also are ground birds like the grouse and have a similar game bird track. Turkey are much larger than a grouse measuring 4” long.

20. Duck: The duck has the same toe arrangement as the game birds, but the webbing gives its print a dis-

Other Small Animal Tracks

These small mammals produce small prints, so you have to look closely at the prints and the track patterns to tell them apart. It’s a diverse group with hoppers and waddlers that range from the forest to the river’s edge. With the exception of the rabbit and armadillo, most of these small mammals have five toes on their front and rear feet.

21. Raccoon: If you see a print that looks like the hand of a baby, then it is likely a raccoon. Raccoon have five toes that resemble a human hand. The front print is smaller (1-3") and has a C -shaped heel pad, while the rear print has a longer (1.5-4") heel pad. Raccoon waddle when they walk.

22. Opossum: With five fingers and a human hand shape, opossum tracks resemble the raccoon, but there is one major difference. Opossum have opposable thumbs on their hind feet that appear in their prints. They are the only North American mammal with opposable thumbs. Opossum also tend to stagger when they walk

23. Otter: Look for signs of otter on muddy or snowy river banks where you can find prints and trough from belly-sliding into the water. They have five toes on their feet and short claws that give their prints a pointed look. Their toes are partially webbed which sometimes show up in the mud.

24. Skunk: Skunk have five toes on their hind and front feet. Unlike most mammal that have large hind feet, and small front feet the front and hind feet of the skunk are approximately the same size. They also have claws that show up in many of their prints.

25. Rabbit: Rabbits are hoppers and move by placing their larger hind feet ahead of their smaller front feet. Unlike squirrels which keep their feet next to each other as they hop, rabbits stagger their feet producing a “Y” shaped track.

26. Armadillo: Armadillo are only found in the southeast and south central US so you don't have to worry about their tracks in the rest of the US. Armadillo have four long toe prints with a sharp claw at the tip. The front print shows a distinct "V" between the middle toes. They also have a scaly tail they drag behind them that often obscures their tracks.