



Volume 31/Issue 5

Muskrat

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MUSKRATS

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Marvelous Muskrats

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Sometimes people confuse muskrats with another animal, beavers. Muskrats love water. They live around ponds, lakes and marshes. You may even find them around streams and rivers if the water is moving slowly. Muskrats do not like fast flowing water.

From a distance muskrats may look a bit like beavers but look closely. There are some differences. Muskrats have long, skinny tails; beavers have tails that are flat like a pancake. Their feet are also different. Beavers have webbed back feet; muskrats do not have webbed feet.

Muskrats love water and spend a lot of time swimming. They have many adaptations, or special features, that help them while in water. One thing that helps them is their long, skinny tails. Muskrat tails are taller than they are wide. Their tails work just like a rudder on the back of a boat helping them turn in the water. They may not have webbed feet, but muskrats do have something on their feet that help them swim. They have stiff hairs on their feet. The hairs spread out and catch the water while swimming. They even have valves which act like doors to seal off their ears and noses. They never have to worry about getting water up their noses when they swim! Muskrats can hold their breath for a long time. They can stay underwater for about 20 minutes before they need to come up for a breath.

Muskrats were named for the stinky fluid they make called musk. Muskrats use musk to mark

their homes. They do not want other muskrats moving into their homes or territories so they put the smelly fluid on their houses and the trails they use. They even put it on the areas where they go to the bathroom!

There are a few structures that muskrats make around their territories. One structure is a floating feeding platform. Feeding platforms are small rafts of plants where muskrats can climb out of the water to eat. Muskrats like to eat plants that grow in and around water like cattails and water rushes. They have even been known to eat crayfish or mussels. Muskrat houses or lodges are another thing they build. Lodges are made of piles of grasses, cattails and other plants. They have underwater entrances. Inside there is a platform above the water and one or more nest chambers where muskrats sleep and have babies. If a muskrat doesn't build a lodge, it will dig a burrow inside a river or pond bank for shelter.

Muskrats can have a lot of babies. They average two to three litters of babies a year. Each litter averages about five to six little muskrats, but they could have as many as 10 to 12 babies in each litter! Baby muskrats drink their mother's milk for about one month and then they are weaned and on their own. Young muskrats may live in their parent's territory for a while until they are forced out. Leaving their parent's territory is a risky time for young muskrats. Many muskrats die during this time. If they can avoid being eaten by a mink, otter, coyote or fox, muskrats may live to be about three years old.



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THE RODENT FAMILY



Muskrats are rodents. So are mice, beavers and squirrels. There are more rodents in the world than any other type of mammal. Idaho has 45 different kinds of rodents.

Idaho's largest rodent is the beaver. It may reach 50 pounds. The largest rodent in the world is the capybara (kap-ee-BAR-ah). They grow to be as big as pigs. Capybara can weigh more than 125 pounds and be four feet long! They live near ponds and rivers in South America. One of the smallest rodents is the pygmy mouse found in Africa. It weighs about as much as an unsharpened pencil and is only two inches long.

The front teeth of a rodent never stop growing, so rodents need to chew on things. This keeps their teeth from growing too long. If they didn't chew on things to keep their teeth short, their teeth

may actually circle around and grow into their skulls!

Do you have a pet rodent like a mouse, hamster or guinea pig? You may have noticed that your pet's front teeth are a yellow-orange color. Believe it or not, these teeth are supposed to be orange! The teeth are only orange on the outside. The other sides of the teeth are white. The orange color is special enamel. It helps to make the teeth strong and hard. Imagine chewing down trees like beavers. Wouldn't you want strong teeth? The orange enamel also helps to keep their teeth sharp. The hard, orange enamel on the outside of the teeth wears down more slowly than the white enamel on the inside of the teeth. Every time a rodent takes a bite it sharpens its teeth. This keeps the teeth chisel-sharp.



Rodents are an important part of the ecosystem. They are links in food chains. Many rodents are food for other animals. Even people eat rodents. In Venezuela, people eat capybara. Venezuelans eat capybara during a traditional holiday, just like we eat turkey for Thanksgiving.

Fantastic Fur

Many animals are covered by what is called fur. You know what fur looks like. Muskrats, bears and coyotes are all covered by fur. It looks like long, soft hair. However, there is more to fur than meets the eye.

Fur is made up of two different layers of hairs. Guard hairs make up the top layer. Muskrat guard hairs are dark brown to reddish-brown in color. Guard hairs do just what their name says. They guard and protect the animal's second layer of fur and skin from weather and water. Often guard hairs are shiny, because animals put oil on them. Animals that spend a lot of time in water, like muskrats, don't want their fur and skin to get wet. They might get too cold. Water hits the oily guard hairs and runs off the animals' backs keeping their fur dry.

The second layer of fur is called underfur. The underfur on muskrats is a grayish color. Underfur is shorter than the guard hairs. It is usually very soft and fluffy. Underfur keeps animals warm. Animals fluff up their underfur and trap air in it. The animals' bodies warm the trapped air. The warmed air acts like insulation, and the animals stay nice and cozy. This is what happens when you put on a coat. Your body heats the air trapped by the coat, and you stay warmer.

Some animals with fur also have other special hairs on their bodies. Can you think of any? Porcupines may come to mind. Porcupines have fur with quills. The quills are special hard hairs that protect porcupines from their enemies. When danger is near, porcupines will arch their backs and tuck their heads under their bodies. This makes the quills stick straight up in the air. If an animal tries to touch the porcupine, it will get a nasty poke from the quills. Porcupines cannot shoot quills out of their bodies. Remember a quill is just a hair. You can't shoot hairs out of your head, so porcupines can't shoot quills out of their bodies.

Fur sure is a fantastic way for animals to stay warm during the cold winter.



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You're walking along a trail. All of the sudden, you see something grayish-white peeking out of the snow. Leaning forward you realize what it is - a skull. Now the mystery really begins. What animal did that skull belong to, and how did this animal live its life?

This may be a hard question to answer, but the skull will give you some clues. One of the best clues you have are the teeth. Teeth tell you what an animal eats. Animals that eat meat need teeth that will help them cut and tear. Meat eaters, called carnivores, have meat cutting teeth along their cheeks. These teeth are sharp and pointed. When the top teeth and the bottom teeth come together, the teeth pass each other like scissors. A carnivore, like a mountain lion, has no problem slicing through an animal with its teeth!

Sharp pointed teeth may work well for meat eaters, but they sure wouldn't help plant eaters. Plant eaters are called herbivores. Plants take a lot of chewing to break down. Just think how long you need to chew celery! Herbivores have tall teeth in the back of their mouths with flat tops. Flat teeth let the animals slide their top and bottom teeth against each other. Muskrats need strong teeth like these to grind up the plants they like to eat.

We have teeth in the back of our mouths with low bumpy crowns, so do bears. Teeth with this shape belong to omnivores. Omnivores eat both meat and plants, so they need teeth that help cut and grind.

Even the joint of the skull and the jaw may help you tell if the animal ate meat or plants. Animals that grind their food need to make circles with their jaws. The joint of plant eaters tends to be like the joint of your hip or shoulder. The joint is like a ball and circle that fit together. The joint of carnivores and omnivores look more like a straight line.

The location of the eye sockets on the skull can also tell you a lot. Predators, animals that eat other animals, need to be able to tell distances. This comes in handy when reaching out to grab a mouse. Predators have eyes that face forward. Prey animals, animals that are eaten by other animals, have their eyes located more to the sides of their heads. This lets them look out for danger in almost every direction, without ever moving their heads.

Looking at these clues may not tell you what animal the skull came from, but it is a start. It may give you an idea of what the animal eats, and whether it is a predator or prey animal.

WHAT'S THAT?

TRACKS!

Winter is a great time to look for animal tracks. Tracking can be a lot of fun. It's a bit like playing detective. You observe, gather clues and do your best to put the clues together to solve a mystery. It also can be difficult at times. Here are some tips to consider when figuring out what animal left a track.

Look at the track from all directions. Are there other clues nearby? You may need more than a footprint to guess the animal correctly. Look for clues like chew marks, bones or scat. Scat is animal poop, and it is often one of the best clues you may find to solve your animal mystery.

Notice the size of the track and its shape. Mammal tracks are usually made up of marks left by the claws, toes, palms, heels and the space in between the toes and pads. Not every track will show all of these things, of course. It all depends upon the animal, and what the animal was doing at the time the track was left. This is what a muskrat track might look like:



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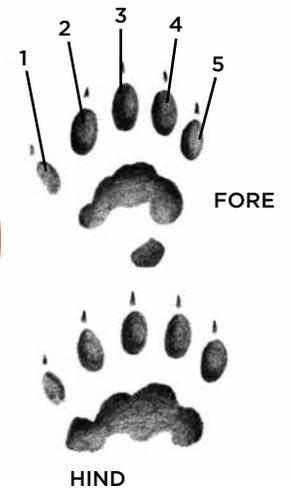
MUSKRAT

How many toe marks show in the track? Muskrats have five toes on both the front and back feet, but sometimes only four toes leave marks on the front foot. Hares have four toes only on their back feet; the front feet have five toes. In tracking guides, toes are numbered one to five beginning with the inside toe and moving outward. The smallest toe (#1) is usually found on the inside of most mammals' feet. This can help you tell if a track is from the left or right foot of an animal.

WOLVERINE



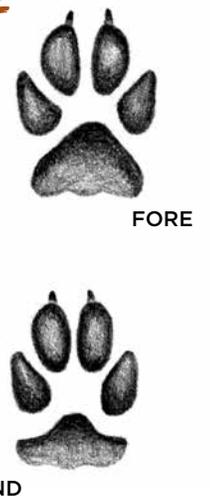
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The front legs of dogs actually have five toes! The first toe is found higher up on the leg, so you don't usually see it in a track. Coyote tracks usually have four clear marks left by the toes, and the front foot tracks are always larger than the rear foot tracks.

These are just some of the things to consider when looking at tracks. Good Luck!

COYOTE



RESOLVE TO...

BE OUTSIDE!

Happy New Year! This is the time of year when people are making New Year's resolutions. They think of something they would like to try or change during the coming year. Often people resolve to become healthier by exercising or losing weight. This year how about resolving to be outside!

If you are more familiar with the sounds of Pokémon than you are the birds in your town, this may be a great resolution for you. Being outside will be a refresher for your body and mind. Spending time outside can be great exercise. Looking for tracks, sledding, hiking, bird watching, and digging in the snow will all give your body a nice winter workout. Even walking around the block will get your blood flowing.

If you are feeling fidgety or anxious, go outside. Bundle up and embrace the beauty of nature. Find a nice quiet spot, close your eyes and let the sounds of nature soothe your soul. Watch a scampering squirrel or busy bird as it looks for food. You may be surprised how a few quiet moments outside can calm the mind. That math problem you have been trying to solve or paragraph you have been trying to write might just become clearer.

Being outside does have great benefits for the body and mind. Even better than that, it is fun! Resolve this year to spend more time outside. If you do, you may find 2018 a fitter and calmer year!



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Muskrat Musings

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

Layout: Glenna Gomez

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WE WOULD LIKE TO HEAR FROM YOU!

If you have a letter, poem or question for Wildlife Express,
it may be included in a future issue! Send it to:

adare.evans@idfg.idaho.gov

or

Wildlife Express, Idaho Fish and Game
PO Box 25, Boise, ID 83707