Wildlife Express!

BADGERS

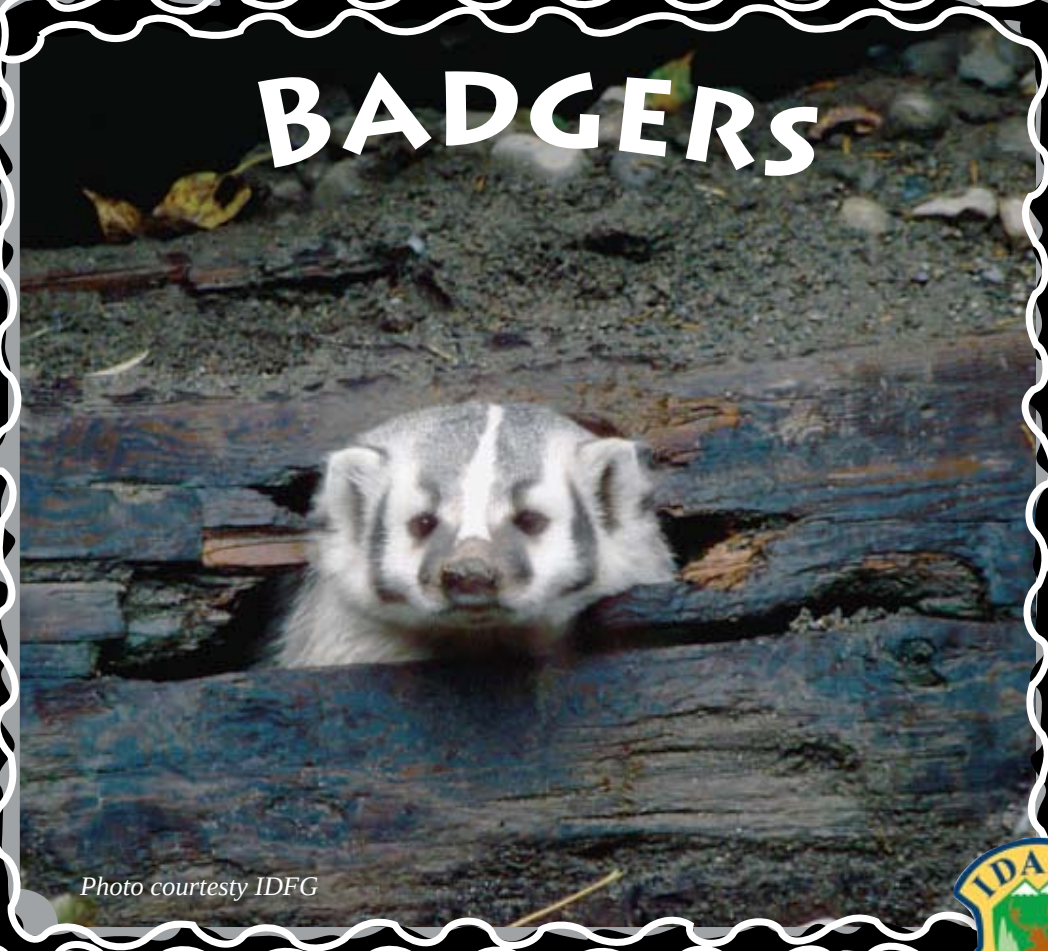


Photo courtesty IDFG

IDAHO FISH & GAME

Mustelids

Mus-tell-whats? Mustelid (muss-TELL-lid) is the name given to members of the weasel family. In Latin, "mustela" means weasel. This group of animals includes weasels, mink, pine marten, fisher, otter, badger and wolverine. Here in Idaho we have eight species of mustelids.

Mustelids are found on every continent except Australia and Antarctica. They range in size from the tiny least weasel weighing just a few ounces to the wolverine that can tip the scales at 35 pounds. As a family, these animals are mostly carnivores eating anything they can catch. But the size of these predators has nothing to do with the size of their prey. Weasels are well-known for killing prey many times their own size.

With their long slender bodies, mustelids are well adapted to getting into tight spaces or moving effortlessly in the water. Even the bulky-looking wolverine and badger are amazingly flexible and quick. Several species, including the pine marten and fisher, are excellent climbers. The otter and mink are mainly aquatic, spending time in or near the water. While otter mostly eat fish, mink will prey upon a variety of aquatic animals such as fish, amphibians, crayfish and even muskrats.

The long body of a mustelid does not hold heat very well. Because of this, these animals must eat a lot to stay warm in the winter. Finding a lot of food all at once is often hard. When they can, many mustelids kill more than they can eat in one sitting. The leftovers are hidden in a place called a "cache" (CASH). Mustelids can then return to the cache when they are hungry.

All members of this family have well-developed scent glands. Located underneath the base of the tail, these two glands produce a very strong-smelling liquid called "musk." Musk is used by these animals for a variety of reasons. Many mustelids mark their territories with musk. This tells other members of the same species to stay out! Some mustelids also mark their food caches with musk. By doing this, they are warning others to stay away from their food as well as marking it so they can find it later. Musk is also used to

Photo courtesty IDFG

Let's Look at.....

Photo courtesy Brian Reeves

Badgers

What looks like a walking carpet and has a fearsome reputation? If you guessed a badger, you are right! The American badger (*Taxidea taxus)* is a member of the weasel family. Early scientists thought badgers were related to bears. While our badger was first discovered in the 1700s, their family is very old. Scientists believe that badgers have been around almost 6 million years. About 10,000 years ago American badgers lived as far north as Alaska and east to Pennsylvania and Maryland. Today, they live mostly in the Great Plains states.

Badgers are easy to identify. They have short legs and a body that looks sort of flat. Their fur is grayish-red, and their belly is tan. A badger's face is boldly patterned. A white stripe runs from the nose over the top of the head. White cheeks with large black patches complete the pattern. Both the tail and ears are quite small. Overall, badgers are medium-sized animals that can be two to three feet in length. When they walk, badgers waddle. This is because they walk on their whole foot instead of just their toes. This is called *plantigrade* (PLANT-a-grade) walking. Other animals that walk this way include bears, raccoons and you!

You can find badgers mostly in the southern half of Idaho where they find the dry open habitats they prefer. These areas provide abundant prey for these carnivores. Badgers eat pocket gophers, voles, moles, ground squirrels, woodrats, deer mice, lizards, snakes, ground-nesting birds and even large insects and scorpions. They find their food by digging. Badgers have powerful front legs and one-inch claws to help them dig quickly to catch their food. They are such good diggers that they can dig through asphalt and concrete two inches thick! Digging is not just for finding food. Badgers also dig to make burrows for shelter and raising their kits. A badger den may be nine feet deep and contain over 30

(Continued next page)

Let's look at Badgers, *Continued*

feet of underground tunnels, plus a sleeping chamber. Badgers have many dens in their one-square mile home territory.

Badgers are solitary animals except during the breeding season. Mating occurs in the late summer, and one to five kits are born in early spring. Badger kits are born with their eyes and ears closed and a coat of downy fur. They grow quickly and are exploring outside their den within a few weeks. Young badgers leave their mother when they are five or six months old. With luck they may live to be 10 years old.

As winter approaches, badgers become less active. During very cold weathers, badgers stay in their dens. While they do not truly hibernate, badgers go into something called "torpor." Their body temperature drops, and their heart beats at half its normal rate. When the cold snap ends, the badger will wake up and become active again.

We are lucky to have badgers in Idaho!

What is a mammal?

Mammals are a group of animals found in the vertebrate phylum. A phylum is a way for scientists to group animals and plants. Members of the vertebrate phylum all have a backbone. Other vertebrates include fish, reptiles, amphibians and birds.

Each group of vertebrates has certain characteristics that make it special. Mammals have two big things that set them apart from all other kinds of animals. The first is hair. All mammals, no matter how big or small, have hair. Sometimes the hair might not look like hair; think about the baleen of a whale. Some desert mammals have a thin coat of hair. Arctic mammals have thick coats of hair that protect them from the cold. Hair comes in all sorts of colors and patterns. Some patterns help a mammal hide. Other hair patterns say "stay away." Some kinds of hair can change color. The fur of snowshoe hares and weasels turns white in the winter. You cannot be a mammal if you do not have hair. Unless, of course, you got a really bad haircut!

The other unique feature of mammals is that they are the only animals that nurse their young. All female mammals have special glands called mammary glands. These glands produce milk that baby mammals need when they are very young. Besides being good food, milk also protects many newborn baby mammals from disease. The milk contains antibodies. The baby's body is too young to make these on its own. By getting antibodies from milk, the youngster is protected until its own body can start making antibodies. Nursing is also important in bonding the mother and her baby. This bonding helps make sure that the mother will take good care of her baby.

Mammals are found just about everywhere. They range in size from the giant blue whale to the tiniest shrew. Some of them are easy to observe like elk and deer. Others are almost never seen even when they are common. Mammals live underground, underwater, on the ground, in trees and bats have even taken to the sky. Just about any habitat you can imagine will have mammals. You even have some mammals living in your house. Just look in the mirror!

Predators. . . . .

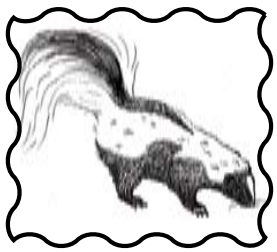
Photo courtesy of Jim Fredericks

When we hear the word "predator," we usually think of a huge something, with long claws and enormous fangs. Actually, the word predator refers to any animal that eats another animal. This can mean an animal as small as a spider or as large as a whale. Types of predators include dragonflies, ladybugs, snakes, bats, robins, bobcats, wolves and many, many others. If it eats another animal, then it's a predator.

Being a predator is not as easy as it sounds. First you have to find your food. Then you have to sneak up on it and try to catch it. Most prey animals do not want to get caught, so you might have to chase it. While you are chasing it, the prey might try to kick you in the head or bite you or sting you or scratch you ----whew! To top it all off, nine times out of ten, you will probably go hungry. Life as a predator is not easy!

Photo courtesy of Ray Greene

Predators are successful enough to keep the populations of many other animals in check. Could you imagine how many mosquitoes would be around if there were no bats or birds? Or how many mice would be eating our crops if there were no hawks, foxes or coyotes? The world would be a very different place with no predators.



What stinks?

If you were asked what is the worst smell in the world, chances are you would say, skunk. Most people would agree with you. Skunks have the reputation of being pretty stinky. Because of this, they were once a part of the mustelid family. Since the mustelids all produce pretty smelly musk, it is easy to think that skunks might belong in this group. But recently, scientists decided that skunks belong in their very own group, and they are no longer considered mustelids.

So, why are skunks so smelly? Their powerful spray is a defense. No animal that has been sprayed once will want to bother a skunk again. Not only is the smell terrible, but it can also burn the sensitive parts of the eyes and nose of an animal. The chemical responsible for all this is called "thiol" (THIGH-ole). It contains sulfur. The sulfur helps give skunk spray its terrible smell. Humans are super-sensitive to thiol. We can smell it in parts per billion. This means that if your classroom was filled with several billion molecules of air and only one molecule of thiol, you and all your classmates would think a skunk was in the room!

Skunk spray is found in two glands at the base of the tail. If both glands are full, the skunk has enough spray to spray five or six times. When skunks spray, they are very good at hitting their target. They can also spray an animal that is 12 to 18 feet away. But skunks will only spray if they can raise their tail out of the way of the spray. It seems that skunks do not like to smell like skunks!

....And Prey

A prey animal is one that is eaten by another animal. Some animals that are predators can also be prey. Think about the food chain. A fly is eaten by a spider which gets eaten by a frog which gets eaten by a snake which gets eaten by a hawk. While it might seem like the prey have no chance, they have many clever ways of staying safe.

Some prey animals, like toads and monarch butterflies, taste terrible! One taste, and the predator spits them right out. Skunks do not even let a possible predator get close. If their bold black-and-white stripes do not warn a predator, then watch out! Other prey animals, like elk and moose, are large and potentially dangerous to a predator. One swift kick can kill or badly injure a predator. Animals that stay in groups have many eyes to watch for predators and warn the group. Some prey animals pretend to be other animals by imitating the colors, patterns or behavior of a venomous species. Idaho's harmless gopher snakes can do a pretty good job of pretending to be a rattlesnake by vibrating their tail against grasses or leaves. Together, predators and prey help keep each other in check, something they have been doing since the beginning of time.

Photo courtesy Beth Waterbury

Warning Colors

What color is most often used to warn us of danger? Usually it is red. The color red stands out, and we notice it when we see it. Many animals also use colors or color patterns to warn of danger. Some of these animals may actually be poisonous. Other harmless animals imitate animals that are poisonous.

An animal that imitates another animal is called a "mimic." A good example of a mimic is the Viceroy butterfly. This butterfly is colored almost exactly like a monarch butterfly. Viceroys are a bit smaller and have a black stripe across both lower wings. Monarchs do not have this stripe. So, how do viceroy butterflies benefit from pretending to be a monarch butterfly? It all has to do with taste. When monarch butterflies are caterpillars, they eat milkweed. Milkweed sap is sticky and has poisonous chemicals in it. The chemicals do not bother the caterpillars but instead build up in their bodies. When the caterpillar becomes a butterfly, its body still contains the chemicals. Any animal that takes a bite out of a monarch butterfly is quick to spit it out because it tastes so bad. They learn to stay away from monarch butterflies. Because Viceroy butterflies look like monarchs, the animal will stay away from them, too.

Other animals have bright colors to warn that they are dangerous. Think about the bright yellows of hornets, wasps and bees. Any critter that has been stung knows to stay away. In tropical rain forests of South America, brightly colored frogs called poison-dart frogs warn away animals by their incredibly bright colors. While the black and white colors of a skunk are not bright, they stand out even in the dark when skunks are active. An animal that has been sprayed will remember that color pattern and go the other way!

Are animals mean?

A mountain lion kills and eats other animals. Rattlesnakes sometimes bite people. Wasps, bees and hornets can sting, and mosquitoes bite. All these animals sound like they are pretty mean. But are they really?

Photo courtesy Ray Greene

When we call a wild animal mean, we are not being very fair. We are expecting animals to follow the same rules that we do. But animals are not people, and they live in a very different world than do humans. Think about that predator killing another animal. Is it being mean? Or is it trying to survive? A long time ago the only way humans could find food was to go out and kill something to eat. Now days, we still eat meat, but most of us do not go hunting to get it. We drive to the grocery store and buy our meat all wrapped up in a nice package. Wild animals that are predators cannot go to the grocery store. To live, they need to kill their food to survive.

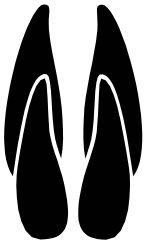
What about the rattlesnake that bites or the wasp that stings? Are they being mean? No, they are protecting themselves. Think about how huge and scary you must look to a small wasp or a snake lying on the ground. Yikes! These animals do not want to get hurt, so they protect themselves. Sometimes animals do things that we might think are mean when they are protecting their young. Have you

Go Outside---Animal Tracks!

Winter is a great time to get outside and look for animal tracks in the snow. The best time is in the morning after it has snowed. During the night, many animals will have been active. You can tell what kind of animals are living nearby by looking at their tracks. You might also be able to learn about what they have been doing. A set of tracks that is heading in a fairly straight line is an animal moving from one area to another. An animal that is feeding will wander as it looks for food. See if you can discover what the animal was eating. Try to figure out if the animal was walking, trotting or running. Was one animal following another? Were a group of animals together?

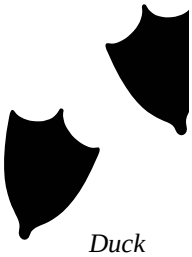
A few simple tools can help you as you look at animal tracks. Use a small tape measure to take measurements of different tracks. Carry a pencil and small notebook to draw a picture of the tracks you see. When you make a drawing, you can compare it to pictures in a book on animal tracks. When you are tracking, remember to dress warmly and tell an adult where you are going. Happy tracking!

See if you can find the tracks on the next page next time you are outside.



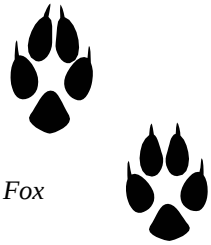
Mule Deer

Mink



Duck

Kangaroo Rat



Fox

Ruffed Grouse

Deer Mouse

Badger

Words

Carnivores

Concrete

Kits

Mammals

Mustelid

Powerful

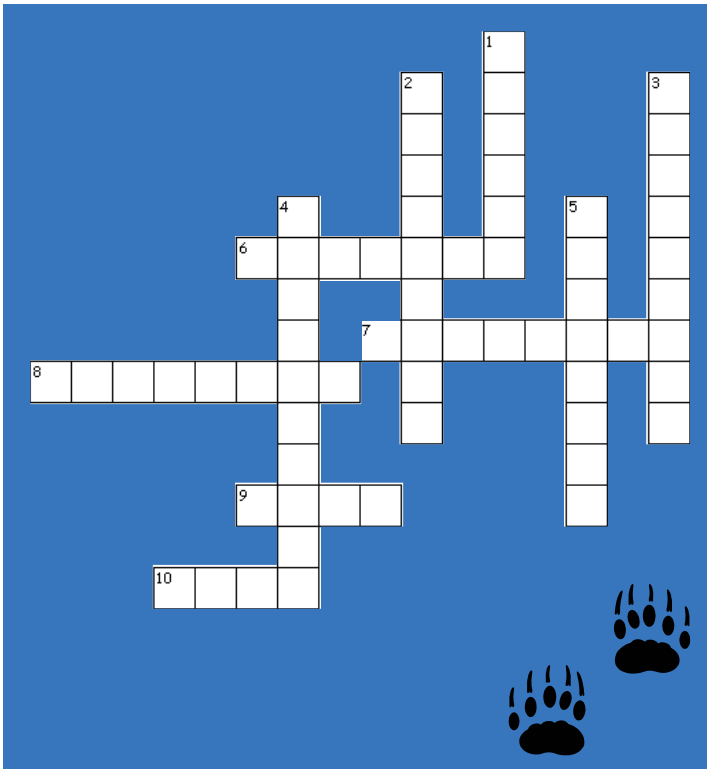
Predators

Prey

Squirrels

Tracks

Badger CrissCross



Across

6. These animals feed their young milk.
7. Badgers have been known to dig through this.
8. Badgers are in the _____ family.
9. A _____ animal is one that is eaten by another animal.
10. The name of badger babies .

Down

1. Winter is a good time to look for _____.
2. These animals eat other animals.
3. Badgers love to eat ground_____.
4. Badgers are _____.
5. Badgers have _____ front legs for digging.

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If you have a letter, poem or question for *Wildlife Express*, it may be included in a future issue! Send it to the address printed above!