



# THE RODENT FAMILY

Idaho ground squirrels are rodents. So are mice, beavers and porcupines. 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. 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 they can 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, though. The other sides of the teeth are white. The orange color is special enamel. It helps to make their 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 they take a bite they are sharpening their teeth. This keeps their 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 love to eat capybara. Eating a rodent might sound strange, but to the people in Venezuela, it is no different than eating a cow or chicken. Venezuelans eat capybara during a traditional holiday, just like we eat turkey for Thanksgiving. Anyone want a serving of capybara?



## LET'S LOOK AT.....



Photo courtesy Bruce Haak

## IDAHO GROUND SQUIRRELS

One of the rarest mammals in North America lives in Idaho. The Idaho ground squirrel lives in Idaho and no where else in the world!

There are two subspecies, or types, of Idaho ground squirrels. The northern Idaho ground squirrel is found in Adams and Valley counties. The southern Idaho ground squirrel is found primarily in Payette, Gem and Washington counties.

Northern Idaho ground squirrels are rare. They are listed as a Threatened Species. There are only about 1,400 squirrels. Most live at elevations between 3,250 and 5,600 feet. They like to live in the same habitats as chipmunks: mountain meadows surrounded by ponderosa pine or Douglas-fir forests. Here they find the grasses and soft plants they need to live. During late spring and summer, squirrels need to eat seeds that are high in fat. Northern Idaho ground squirrels must store body fat to survive their long hibernation through the fall and winter. They hibernate for about eight months! Research has shown that a healthy ground squirrel may need to triple its body weight between spring and summer. That's amazing!

Southern Idaho ground squirrels are not listed as threatened – at least not yet. Only about 4,000 can be found, so they are still rare. They like lower elevations between 2,200 and 3,600 feet. Their habitat used to be covered with sagebrush, bitterbrush and

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bunchgrasses, but many of these native plants are gone. Cheatgrass, which is not good for wildlife food, now covers much of the land. Unlike the northern squirrels, southern Idaho ground squirrels are active between January and June. In a normal year, they hibernate and aestivate (sleep) from July to January.

Idaho ground squirrels mate immediately after emerging from hibernation. Six weeks later, young ground squirrels can be seen above ground nibbling on plants. The young need to develop quickly and gain weight before they start to hibernate. If the pups can avoid snakes, hawks, foxes, coyotes and badgers, they may live to be four or five years old.

People are studying Idaho squirrels to learn more about them and see what can be done to help them survive in the wild. Both the northern and southern Idaho ground squirrels have lost good habitats. Controlled fires and re-seeding the land with native shrubs and plants may help restore the habitats they need. Limiting livestock grazing to specific times of the year and limiting development may also help. If you go to Zoo Boise, you will find a large display of sagebrush, grass and holes. During the spring, you may see a head pop out of a hole or a brown body scurry about. The animals in the display are southern Idaho ground squirrels. Scientists and Zoo Boise staff are attempting to breed southern Idaho ground squirrels in captivity and reintroduce them into the wild. If this experiment is successful, it probably will work for the northern Idaho ground squirrel as well. This may be one way to help these true Idaho gems.

## **A LONG WINTER'S SLEEP....**

At this time of year, many animals are underground for a long winter's nap. They are hibernating. Their body functions slow down. They don't breathe as often, and their hearts don't beat as often. There is almost no sign of brain activity.

Animals need a thick layer of fat when hibernating. Animals that hibernate eat a lot of food during the summer and fall. Some of the food is

stored as brown fat. This special fat is found across the back and shoulders of hibernating animals. During the winter, their bodies use the fat like food to keep their hearts beating.

Many animals sleep during the winter, but scientists only call some of them true hibernators. The body temperature of these animals drops while sleeping. Marmots almost freeze to death. Their temperature drops to 38 degrees Fahrenheit! Water freezes when it's 32 degrees outside. It would be hard to wake up a hibernating marmot. It needs to warm up before it can wake up. Marmots and some bats, some squirrels and some chipmunks are true hibernators.

Some true hibernators aren't asleep the whole winter. They warm their bodies and wake up. They may be awake for an hour, or they may be awake the whole day. People aren't sure why some animals wake up. It may be to nibble on stored food. Some animals go to the bathroom in special rooms in their burrows. Waking up could also help animals fight off germs that may make them sick.

Many people think bears hibernate, but some people do not agree. Bears do sleep in the winter. They also don't eat, drink or go to the bathroom. The difference is that a bear's body temperature doesn't drop much. If you cross-country ski or snowmobile over a bear's den in the winter, you just may wake up the bear. A true hibernator would not wake up as easily.

Most animals hibernate because they can't find enough food during the winter. Idaho ground squirrels eat plants. Cold winters kill some summer plants. It's the warmer temperatures of spring that make the plants sprout back to life. This is the time when Idaho ground squirrels start coming out of their dens.

Hibernation is a great thing. It allows animals to stay in one habitat, even when food is hard to find.

# HOME SWEET HOME

An animal's home is called its habitat. A habitat contains four things: food, water, shelter and space. If one part is missing, an animal will not survive.

It is easy to see how important food, water and shelter are to an animal. You must eat. A big glass of ice water sure hits the spot on a hot summer day. You wouldn't want to stand outside during a thunderstorm, but the space part of habitat is just as important as food, water or shelter. Animals need enough space to find the things they need without having to fight for them. When animals have to fight over food, they use important energy. Animals gathered together in small spaces can also make each other sick. Think of a student who has a cough. In the small space of a classroom, that student's germs quickly spread to other students who also get sick.

Next time you see an animal, think about its habitat. What is around that the animal might eat? Is there water nearby? Is there a bush, hole or cave for shelter? Does it seem like many other animals are around? Answering these questions will tell you a lot about the life and habitat of the animal you saw.



Photo courtesy Lada Stransky

## NAME GAME

Everything has a name. You do. You have a first name and a last name. Most people also have a middle name.

Animals and plants have two names, too. They have a common name and a scientific name. The common name is the name most people use when talking about the animal. The scientific name is usually in Greek or Latin and is made up of two words. The first word is the genus name. The second part is called the species name. Sometimes the scientific name has three parts – the genus, the species and the subspecies. The Idaho ground squirrel has two subspecies the northern and the southern. They are the same type of squirrel, but they are just a tiny bit different. Sometimes what makes subspecies different from each other is just the habitat in which they live.

Have you every wondered how animals and plants got their scientific names? The first part of a scientific name tells us what genus an animal or plant is in. Plants and animals with the same genus name are closely related. They have many things in common with each other. They would be close cousins.

The species part of the scientific name tells us something specific about the plant or animal. Plants and animals are usually given their scientific names by the person that first discovered and wrote about them. Sometimes animals are named after people. The white-tailed jackrabbit's scientific name is *Lepus townsendii*. It was named after J.K. Townsend. He was the person that first collected white-tailed jackrabbits.

Often animals and plants are named for some special features they have. The skunk's scientific name is *Mephitis mephitis*. This means bad odor, bad odor. That makes sense! The mountain lion's scientific name is *Puma concolor*. Concolor means one color. Mountain lions don't have any spots on their bodies when they are fully grown. Other wild cats in Idaho, bobcats and lynx, do have spots or markings on their bodies when they are fully grown.

Scientific names can tell us a lot about animals and plants. Next time you see a scientific name, do a little research and find out what the name means. You might be surprised by what you find out!



# **THREATENED, ENDANGERED, EXTIRPATED ... WHAT DOES IT ALL MEAN?**

Have you ever heard someone say that an animal is threatened or endangered? How about extirpated (EKS-tir-pated) or extinct? What do all these terms mean?

Scientists use these terms to describe how a wildlife species is doing. A species that is threatened is usually becoming harder to find. The northern Idaho ground squirrel is a threatened species. The number of individuals is declining. The animal may be listed as endangered if not helped.

If someone says a species is endangered, that means the species is in danger of becoming extinct. These animals are really in trouble. The species will probably not survive unless people help. Woodland caribou are in this category. In fact, they are the most endangered animal in the lower 48 states. Caribou are found only in the extreme northern parts of Idaho, close to the Canadian border.

Animals that are extirpated are missing from an area where they used to be found, but they are still found living in other areas. Caribou are extirpated from Britain. At one time, caribou lived on the British Islands, but they were hunted and lost their habitat to humans. Does that mean they are extinct? No, because caribou are still found living in other parts of the world.

Extinct animals are animals that no longer exist. They cannot be found anywhere on the planet. Passenger pigeons, heath hens and dinosaurs are examples of extinct animals. Now you know what it means if someone says an animal is threatened, endangered or extirpated.

# WHAT'S YOUR NICHE?

Think of the town where you live. People in your community have jobs that make it a nice place to live. There are doctors that keep you healthy. Teachers that help you learn, and people that make food for you to eat.

Animals, plants and other organisms also have jobs and roles to play where they live. This role is called a niche (NITCH). An animal's niche includes such things as where and how the animal gathers food and its link in a food chain.

Within ecosystems, every living thing has important jobs and roles. If one of these organisms is missing, the ecosystem will be unhealthy. At times, it may be hard to identify an animal's niche. What about skunks? They just seem like stinky animals that may cause farmers problems. Even the smelly skunk has a role in nature. Skunks eat more insects than anything else. They really love to eat grasshoppers, beetles and moth larvae. Many of the insects skunks eat like to munch on farmer's crops. Skunks help farmers by eating crop pests. The small bit of grass or soil they dig up looking for food is a small price to pay for all the insects they eat.

What's your niche? Do you have an important job or role to play in your family or school?



## WHAT'S THAT?

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



*Photo courtesy Deloy Roberts*

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.

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. Ground squirrels are in this group. Flat teeth let the animals slide their top and bottom teeth against each other and grind the plants.

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.

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.

# WILL YOU BE MINE?

Are you giving anyone a special valentine this month? It's fun to make valentines to send to friends or give to family. Animals sometimes give valentines to each other, but these valentines are not made out of paper!

Male shrews get a bit chubby to impress female shrews. Some male shrews double their weight before breeding season. Could you imagine eating so much food that you doubled your weight in just a few weeks or months? You would have to eat tons of food! Female shrews must like their special guys on the plump side.

Some animals will give food to each other. Barn owls offer their mates tasty mice as a gift. Before the female ever starts to lay her eggs, the male will bring her food. This may be his way of showing her that he is a good hunter. While the female barn owl sits on her eggs, the male will need to bring her food. He will also need to help bring food to the owlets.

Some animals offer their mates valentines of dancing and singing. Male crows can put on quite a display. They dance, bow and strut with their wings and tail feathers spread out. While dancing, crows sing a song that is a bit like a rattle.

Have you ever seen a peacock strut? They are beautiful with their colorful long tail feathers. Females really like long, bright feathers with large black spots on them. The black spots look a bit like eyes. The larger the spots are the more the female likes the male. There may be a reason for this. Scientists have found that males with long tail feathers with larger spots actually have young that are larger and healthier. Females might be able to tell this just by looking at the spots!



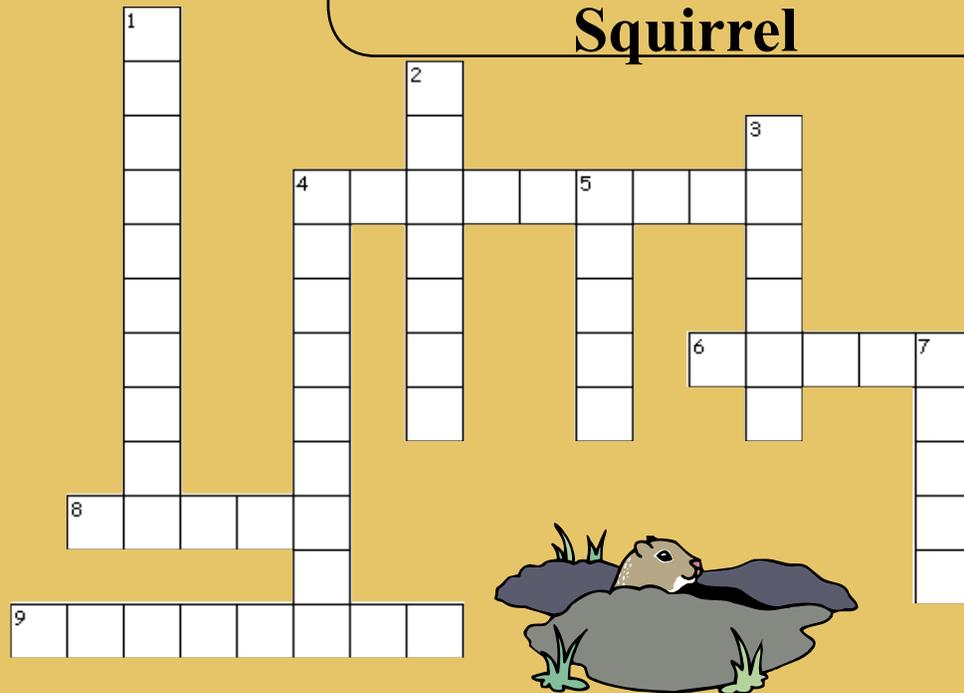
*Photo courtesy Garren Evans*

Animals may not give real valentines to their sweeties, but they offer other gifts to show they like each other.

## Words

Beaver  
Extirpated  
Genus  
Habitat  
Herbivore  
Hibernate  
Idaho  
Niche  
Northern  
Seeds

# Idaho Ground Squirrel



### Across

- Idaho ground squirrels may \_\_\_\_\_ for eight months.
- The first part of an animal's scientific name is called the \_\_\_\_\_.
- The only place in the world where you can find Idaho ground squirrels.
- The \_\_\_\_\_ Idaho ground squirrel is a Threatened Species.

### Down

- An \_\_\_\_\_ animal is missing from areas where it was once found, but is still found in other areas.
- An animal's home is called its \_\_\_\_\_.
- The \_\_\_\_\_ is Idaho's largest rodent.
- An \_\_\_\_\_ has flattened teeth for grinding.
- An animal's job is called its \_\_\_\_\_.
- Idaho ground squirrels fatten up on \_\_\_\_\_ during the fall months.

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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 the address printed above!

