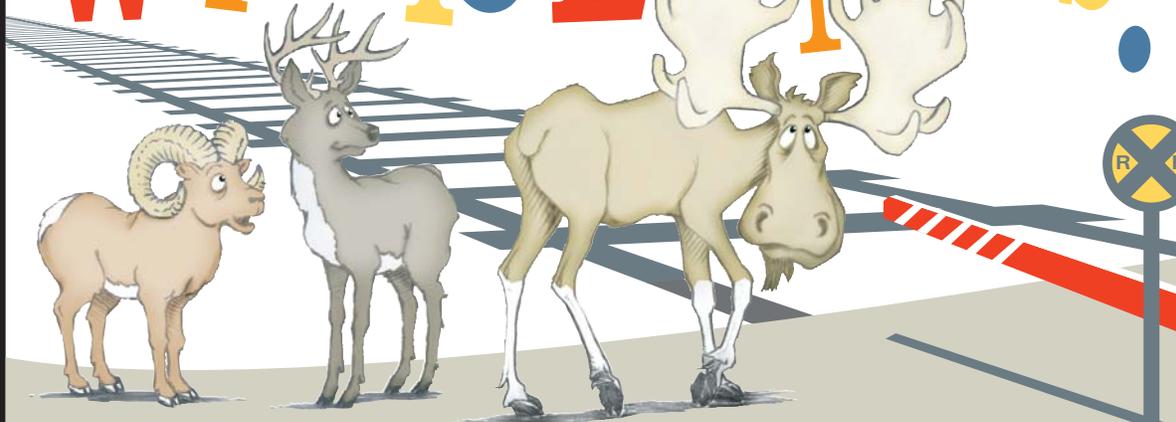


Wildlife Express!



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Marvelous Marmots



photo by William Mullins©



Let's Look at...



Yellow-bellied Marmot

On August 20, 1805, Lewis and Clark saw a strange animal. It was about the size of a house cat. It lived in burrows and made whistling and chirping sounds. It was something they had never seen before. It was the yellow-bellied marmot. They first saw the marmot along the Lemhi River in Idaho.

People on the Oregon Trail also saw yellow-bellied marmots. They thought the animals looked similar to woodchucks from back home. (Only they were lying on rock piles not in the woods.) They were fat, round and whistled. Many pioneers called them whistle pigs or rockchucks.

There is a reason Lewis and Clark and pioneers had never seen yellow-bellied marmots before. They are only found west of the Great Plains.

Yellow-bellied marmots spend most of their lives eating, digging and laying in the sun. They are great diggers. Their burrows are usually three feet deep, and they can be over 50 feet long!

Marmots hibernate during the winter. If a marmot lives high in the mountains, it may hibernate for eight months! More marmots die while hibernating than in any other way. They may freeze to death if their burrows aren't deep enough. Hibernation burrows are usually 16 to 23 feet deep. It takes a lot of digging to get a burrow that deep!

Yellow-bellied marmots like to live in groups called harems. A harem is usually one adult male and two or three females. When harems live close to each other, it is called a colony. Adult males don't like other males in their territories. If an adult male tries to enter another male's home, he will be chased off. Young male marmots are allowed to stay with their mothers until they are about one year old. Then they will be chased off by the male, too. Young females are allowed to stay close to home.

Marmots give birth to their babies in a grass-lined nest underground. They usually have three to five pups. The pups start to make short trips outside of the burrow when they are about three weeks old. At five weeks old, they no longer are drinking mother's milk and have begun getting food on their own. Marmots will eat grasses and all sorts of other plants.

Only about half of the pups will live to see their second birthday. Many animals like to eat marmots. The pups will need to watch out for eagles, badgers, bears, coyotes and mountain lions.

Look for yellow-bellied marmots next time you are out. They like to live in meadows, valleys and foothills where there are rocky outcroppings to lay on. They are fun to watch and listen to!

Animal Talk

Animals don't talk, of course, but they do "tell" each other things. They need to communicate. They may need to warn each other that danger is near, or let others know where to find food. They may want to protect their territory, keep their family together or find a mate.

Animals "talk" to each other in many different ways. They may see a message. White-tailed deer raise their tails when danger is near. Other deer see the white tail and know to be alert. The signal may be a noise. Wolves howl to tell other wolves where their home is. Chemical signals may also be shared. Many animals have special, stinky glands. The glands make oil that the animal can rub on plants and rocks. We may be able to smell a skunk, but we might not be able to smell the scent mark of a bear. Even though we can't smell the mark, other bears can. When one male bear smells another bear's mark, he knows he is entering someone else's home.

How do marmots communicate? They are actually pretty noisy. Marmots whistle or chirp when they are scared. Sometimes they make a "chucking" sound. The most common sound they make is a chirp. Chirps are usually short, high pitched sounds. If they are really scared, they chirp quickly and make a "trill" sound. All of these sounds are called alarm calls. Whenever another marmot hears an alarm call, it will immediately look around and return to its burrow.

Marmots usually make sounds when they see predators. Wild dogs and badgers really make them go. Marmots chirp faster and make more chirps when they see coyotes, foxes and badgers.

Mothers with young pups chirp more than other marmots. By calling, the mothers make themselves known to the predators. This draws attention away from the young pups and gives them a little more time to get to safety. Mothers call to protect their pups. Even though calling may put their lives in danger.

All animals need to communicate. Learn about other animals and find out ways they "talk" to each other.



All In The Family

Yellow-bellied marmots 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.

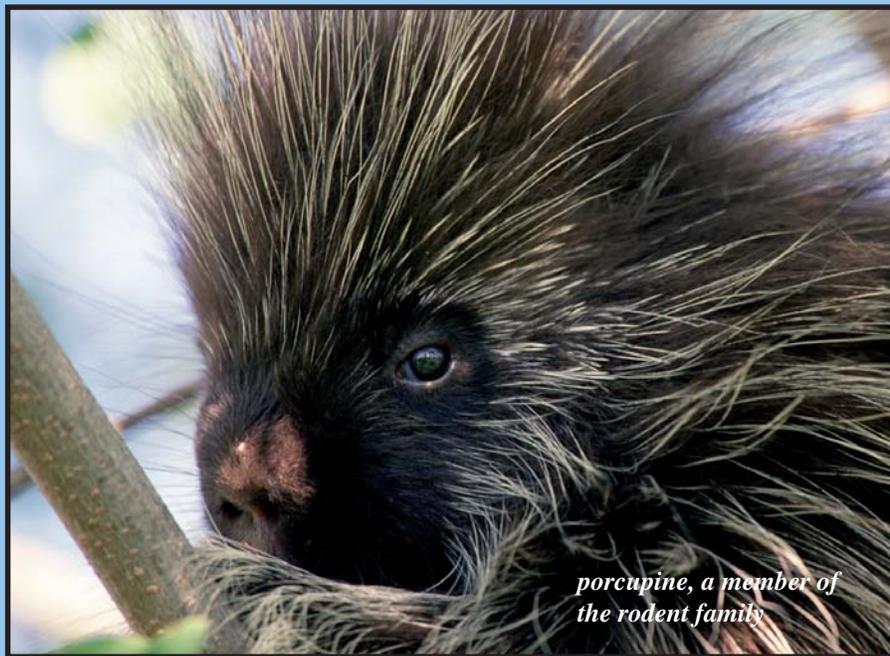
Idaho's largest rodent is the beaver. The largest rodent in the world is the capybara (kap-ee-BAR-ah). They grow to be as big as pigs. Capybara can weigh more than 125 pounds, and they can be four feet long! They live near ponds and rivers in South America. One of the smallest rodents is the pygmy mouse 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 cutting 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?





*porcupine, a member of
the rodent family*

Taxonomy Tales

Have you ever thought about how many animals are on our planet? We need some way to group the animals and keep them straight.

All living things are divided into groups. Classification of animals into groups is called taxonomy. At first, the groups are large. Then they are broken down into smaller and smaller groups until there is just one animal left. Let's see how this works by tracing the yellow-bellied marmot.

All animals are put into one group called the Animal Kingdom. The kingdom is broken down into smaller groups called phyla (FY-lah). Yellow-bellied marmots are in the phylum chordata (KOR-dat-a). Animals in this group have backbones. Are you in this group? Lots of animals have backbones, so we need another group.

Next, animals are grouped into classes. Marmots and humans are mammals. We are in the class mammalia (mam-MAIL-ee-a). There are about 4,000 mammals on the planet. We need to further divide the mammals.

The next group is called an order. Yellow-bellied marmots are in the rodentia (row-DEN-chia) order. This is a big group. Mice, rats and beavers are just some of the animals in this group.

Family is the next group. The family marmots are in is the sciuridae (sii-YOUR-i-day) family. Squirrels are in this family, too. We have more dividing to do to get to the yellow-bellied marmot.

The next group is called a genus (JEEN-us). All marmots are in the genus marmota (mar-MOE-ta). To tell the marmots from each other, they are given another name. It's the species name. The yellow-bellied marmot's species name is flaviventris (flav-i-VEN-tris). The genus and species names together make up the scientific name for the yellow-bellied marmot, *Marmota flaviventris*.

Only the yellow-bellied marmot has this name.



Who Am I?

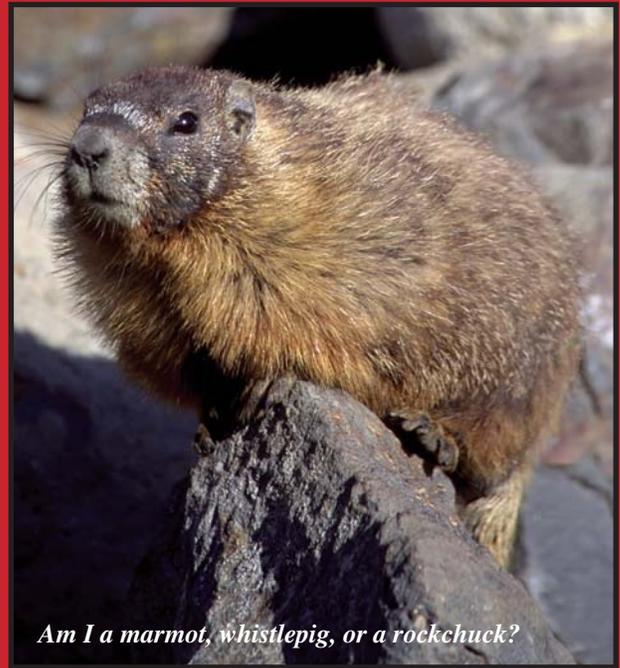
Have you ever heard of scientific names? They are usually long and sometimes hard to pronounce. You may have wondered why people use scientific names.

People use scientific names, so they know they are talking about the same animal. Here is an example.

In Idaho, we have animals that you may see lying on piles of rocks in the sun. They live in burrows and eat plants. They are this month's featured animal, yellow-bellied marmots. I have also heard people call them rockchucks, whistle pigs, groundhogs and woodchucks. These are called common names. That's five different names for the same animal! Wow, that can be confusing.

What if you wanted to tell a person about the yellow-bellied marmot? It could be hard if that person called them a rockchuck or whistle pig. What if you spoke a different language? This could really make things difficult. How do you make sure you are talking about the same animal?

Scientific names are the answer. They are the same everywhere in the world. By using a scientific name, people know they are talking about the same animal. That way they won't get confused by common names. The scientific name for the yellow-bellied marmot is *Marmota flaviventris* (mar-MOE-ta flav-i-VEN-tris).



Am I a marmot, whistlepig, or a rockchuck?



Hibernating Humans?

Hibernation is a bit of a mystery. People still don't know much about it. Scientists are studying hibernating animals to learn more. They are also seeing if hibernation may help people.

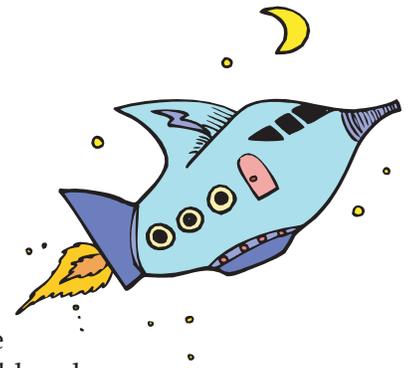
Hibernating animals go through a lot. A marmot's heart goes from 80 beats a minute to just four or five beats a minute! Think about the marmot's body temperature. It drops to 38 degrees. Then it goes back up again! These are huge changes. The cells inside a human body would explode if they got that cold and were warmed up again.

People are looking at the cells of animals that hibernate. There are special chemicals in the cells. The chemicals help the animals survive the big changes they go through. If they can find the chemicals, they can copy them. This may help doctors that do organ transplants. It may also help people that have heart disease or have strokes. Even people with thin bones may be helped by hibernating animals some day.

Someday people may be able to hibernate! The European Space Agency is seeing if they can make it happen. Astronauts can't travel too far into space. Traveling to planets like Mars and Saturn would mean being away from home for a very long time. Think of all the water and food that would need to be packed. It would take a huge spaceship.

If astronauts could hibernate, a trip to Mars or Saturn might be possible. They could use a smaller spaceship. Since the astronauts wouldn't eat or drink while sleeping, they wouldn't need to pack as much food or water. There is even a chance that the astronauts wouldn't age much during the trip. By the time they reached Mars, they would still be young enough to do their studies and return to Earth.

People may not be able to hibernate. Lots of studies need to be done. Even if humans never hibernate, what we learn from hibernation will help many people some day.



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 way down. They don't breathe as often. Their hearts don't beat as often, and 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 temperatures of these animals drop a lot 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 a 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 a whole bunch. 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. Yellow-bellied marmots 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 marmots 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.



Wildlife Valentines

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

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 long colorful 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!

Other animals like to give shiny, sparkly gifts. The bower bird in Australia collects anything that is the color blue. Females just love blue colored things. Shells, paper, feathers, jewelry and flowers are just some of the things that male bower birds have collected to offer females.

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



photo courtesy of Alan Freed/
PunxsutawneyPhil.com

Groundhog Day

February second is Groundhog Day. On Groundhog Day, people watch for groundhogs to come out of their dens. If the groundhog sees its shadow, we are supposed to have six more weeks of winter. If the groundhog doesn't see its shadow, spring is supposed to come early. How did this tradition start?

Our Groundhog Day can be traced back to Europe. On February second, people celebrate Candlemas Day. They thought that a sunny Candlemas Day meant the last six weeks of winter would be stormy and cold. People also watched for bears, badgers and hedgehogs. They believed seeing these animals meant the end of winter. This was a sign to start planting their fields. German farmers brought these traditions with them when they came to America.

The first Groundhog Day took place in Pennsylvania in the 1800s. There were lots of groundhogs where they lived, so they started looking for them as signs of spring. They went looking for groundhogs on February second – Candlemas Day. Their beliefs about a sunny Candlemas Day bringing six more weeks of stormy weather was somehow combined with seeing groundhogs.

Today, the "official" groundhog, named Punxsutawney Phil, is kept in Punxsutawney, Pennsylvania. He lives in a manmade den next to the library. Every February second, he is pulled from his den by his keepers. Phil is supposed to whisper his prediction of the coming spring into the ear of his keeper. The keeper then tells the crowd.

Phil has become pretty famous. He has been on television. He has even been to the White House! It's amazing that all this started with German settlers continuing traditions from their homeland.

Marvelous Marmots

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WORDS
BEATS
BURROWS
CHIRP
GERMAN
PLANTS
PUPS
ROCKCHUCKS
TEETH
TRUE
WORLD

- Yellow-bellied marmots are _____ hibernators.
- Rodents have front _____ that never stop growing.
- Marmots live in _____.
- Marmots _____ when scared.
- Yellow-bellied marmots are sometimes called _____.
- Groundhog Day was started by _____ settlers.
- Scientific names are the same everywhere in the _____.
- A marmot's heart _____ four or five times a minute when hibernating.
- Marmots like to eat _____.
- Baby marmots are called _____.



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Lead Writer: Adare Evans
 Layout and Design: Alyssa Jones
 Contributors: Lori Adams ● Kevin Frailey
 ● Renai Brogdon ● Eric Stansbury

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