

Wildlife Express!

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Red Squirrel



Photo courtesy Wikimedia Commons.

Red Squirrels

If you have ever been in an Idaho forest, you have heard a red squirrel. This tree squirrel doesn't like to have anything in its home. It will stomp its feet, wave its tail, and scold you with a churning, rolling chatter. It may even growl at you.

Red squirrels are sometimes called pine squirrels or chickarees. The name chickaree refers to the sound the squirrel makes when it is defending its territory. Red squirrels are one of the most territorial animals in the forest. There is a reason why they are so protective of their small part of the forest – cones.

Red squirrels do not hibernate. Winter can be cold and harsh in Idaho's forests, so red squirrels need to gather as much food as they can to make it through the winter. They eat the seeds in pine, fir and spruce cones. In the autumn, the cones are perfect for picking only for about four to six weeks. The squirrels need to wait for the seeds to develop in the cones, but they don't want to wait too long. If the squirrels wait too long, the cones will open and the seeds will be gone. For about a month, red squirrels are running around gathering as many cones as they can. They cut the cones from the trees with their teeth and let the cones fall to the ground. They will stay in a tree for about five minutes cutting cones. They then run down the tree and gather the cones in a pile. The seed storage piles are called middens. Middens can be huge. They may be three feet deep and over twenty feet across. The middens are used year after year.



Middens contain cones and the broken apart cones from which the squirrel has eaten.

All of the cone parts make the midden cool and

damp. The wet, cool midden keeps the cones from opening and keeps them fresh. Red squirrels may eat cones stored in middens for many years.



Red squirrels not only eat pine nuts. They also eat flowers, berries, tree buds, bark, tree sap and mushrooms. They will even eat insects, young birds and eggs.

Female red squirrels only allow male squirrels in their territory for one day. The squirrels mate and then the female chases the male away. In about 35 days, two to five red squirrels are born in a hole in a tree. Red squirrels may also build nests out of leaves and twigs.

Red squirrels weigh about as much as two crayons when born. They are hairless, their eyes are closed and they depend on their mother for everything. For squirrels, they develop slowly. They will drink their mother's milk until they are nine to 11 weeks old. Before the mother weans her young, she moves them to a nest near the edge of her territory. When it is time for the young red squirrels to find their own home, the males are chased off and out of their mother's territory. Sometimes daughters are allowed to inherit territory on the edge of their mother's home.

The first winter is the most difficult for a red squirrel. It needs to find its own territory and store enough food to make it through the winter. It also needs to watch out for predators like hawks, owls, red foxes, coyotes and bobcats. If a red squirrel makes it through the first year of life, it may live to be two or three year old.

Look for red squirrels the next time you are in a forest. They are energetic, noisy and great acrobats. Their leaping and running from tree to tree can be very entertaining to watch!

Lending a Hand



Photo Courtesy Tom Schremp

Everything in nature is connected. Animals often help the ecosystem or lend a hand to other animals, even if they don't mean to help. Even the activities of red squirrels are beneficial.

Red squirrels and grizzly bears are connected. Red squirrels that live high in the mountains gather whitebark pine cones and store them in their middens. Whitebark pine seeds are one of the grizzly bear's favorite foods. Grizzly bears like to eat whitebark pine seeds, but they have a difficult time climbing the trees to reach the cones. So they steal cones from the red squirrels. Grizzly bears have a great sense of smell. They sniff out the whitebark pine cones in the squirrels' middens and eat them. Usually red squirrels store

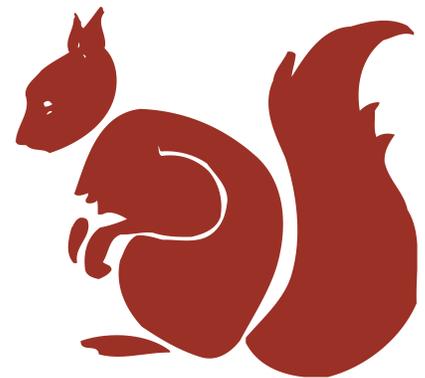
more cones than they can eat, so the bear's dining doesn't affect the survival of the red squirrel. There is little the red squirrel can do to protect its stored

cones, other than scream s protest. The little squirrel is no match for a grizzly bear!

Even people used to take cones from red squirrel middens. Early foresters would harvest pine, spruce and fir tree seeds from cones in squirrel middens. The foresters would take the seeds back to their tree nurseries to germinate and grow.

The saplings would then be planted back in the forest to replenish trees that were harvested. By taking and growing seeds from the middens, the foresters were sure to plant trees that were local to the forest and had the best chance of survival.

The activities of red squirrels also benefit the forest that they call home. Red squirrels not only hide cones in middens. They also place cones in smaller holes and locations around their territories.



Red squirrels can't eat every cone and seed that they hide. Some of the seeds will germinate and grow. The young trees are often located away from the parent tree, perhaps in a place where there are no larger trees. By moving the cones around, red squirrels are also moving the seeds around. They help disperse seeds throughout the forest, and this keeps the forest growing strong.

The red squirrel may not seem like an important animal in the forest, but it is important. What would happen if the red squirrel was not there to lend a hand with its simple act of hiding cones?



The Rodent Family

Red 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. 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. Anyone want a serving of capybara?



Getting Ready for Winter

The harsh, cold days of winter will soon be upon us. Freezing temperatures, blowing wind, rain, and snow not only affect us; they also affect wildlife. Fall is a busy time of year for wild animals. They must get ready for times when food will be more difficult to find. How do animals prepare for the rigors of winter?

Some animals leave. They migrate to warmer climates where food is easier to find. Some animals travel long distances. Birds are the animals you probably think of migrating, but there are other animals that also travel great distances. Can you name an insect that travels to southern California and central Mexico for the winter? It is our state insect, the monarch butterfly!

Other animals sleep through the long, harsh winter. Marmots, bears and bats are just some of the animals that hibernate through the winter. Why do they hibernate? It's not the cold; it's the food. Marmots and bears eat plants. Most trees drop their leaves during the winter. Grass and fruits

dry up and turn brown. It can be difficult to find good plants to eat in the winter. It is best for these animals to conserve energy and wait for greener times. Idaho's bats eat insects. They would starve to death looking for insects in the winter. By hibernating and slowing down their body functions, animals are able to survive on their stored fat until food becomes available.

Red squirrels cache (CASH) or stockpile food. Many animals try and store enough food to get through the winter. Beavers are animals that store food. Their pond is their pantry. Beavers cut limbs off of trees and stick them in the mud at the bottom of their pond. The bark on the limbs will help them make it through the winter.

Can you think of other ways that animals prepare for winter? Head outside and see if you notice animals busy with winter preparation.



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 (NICH). 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 see the special role of an animal. What about skunks? They just seem like stinky animals that cause 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. Skunks eat insects that like to munch on farmer's crops. Skunks help farmers by eating crop pests. The small bit of soil and plants they dig up looking for food is a small price to pay for all the insects they eat.

Can you think of the red squirrel's niche? What's your niche? Do you have an important job or role to play in your family or school?

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 communicate with other members of the pack. 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 red squirrels communicate? They use sound, signals and scent. Most of the sounds that red squirrels make are to protect their territory. There are at least four different sounds that red squirrels make to tell other red squirrels to "go away." They screech, chirp, growl and make a rolling churrrr sound that can last for four to five seconds. They also use signals or body language. Stomping feet and a flicking tail are real threats to other squirrels. When a red squirrel stomps its feet and flips its tail, it means business! Red squirrels also use smells to communicate. When a female is ready to mate and let male squirrels into her territory, she emits a strong odor. Red squirrels may also use scent to help mark their territories.

All animals need to communicate. Can you think of other ways animals "talk" to each other?



Home Sweet Home

An animal's home is called its habitat. A habitat contains four things: food, water, shelter and space. These four things need to also be arranged fairly close together, so the animal can find them easily. 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.

Wildlife Alarm Systems

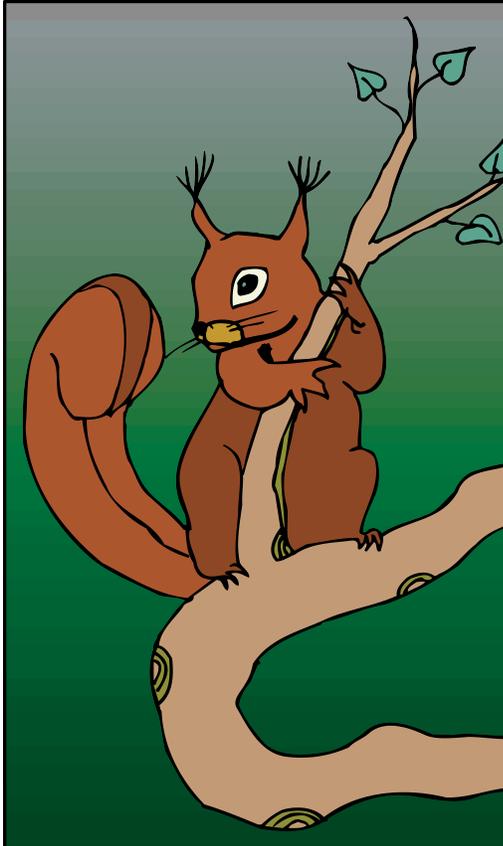


BE OUTSIDE
IDAHO CHILDREN IN NATURE

Red squirrels are quite the forest alarm system. Their chattering and scolding alerts other animals that danger is near. Animals that pay attention avoid danger by staying alert, finding shelter or leaving the area. Take a walk in the woods to find other animal alarms—just listen!

Birds might be the first animal alarm that sounds off when you enter the woods. The loud “caw, caw” of crows tells the neighborhood that you are nearby. Listen to see if you hear other birds scolding you. Even tiny birds like chickadees have their own alarm system. Other small birds, like nuthatches, know that the number of “dees” in a chickadee’s “chick-a-dee-dee-dee” warns of danger. If you hear a chickadee, count the “dees.” More than three means that the bird has spotted danger.

Large mammals like deer snort to alert others to danger. Some noises are warnings not to get too close.



Bears make “chuffing” sounds and pop their jaws when approached too closely. Rattlesnakes rattle their rattles to warn other animals away. Snakes, like gopher snakes, imitate rattlesnakes by vibrating their tail against dry leaves. This makes a buzzing sound. Other animals think the buzzing is a rattlesnake and head in another direction.

Animals also use silence to warn of danger. Frogs and toads stop singing when an intruder arrives at the pond. A hawk flying through the woods can silence singing birds.

Learning about animal alarms can help you be a quiet visitor to the forest. This is important if you are a hunter, bird watcher or wildlife photographer. A hunter crashing through the woods will come home empty-handed. The loud bird watcher or photographer won’t see much. Next time you take a hike, see how far you can walk without tripping any wildlife alarms!

Squirrely Word Search

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

ACROBAT
BENEFICIAL
CACHE
CHATTER
FOREST
HABITAT
MIDDEN
NICHE
PINE CONES
RODENT
SCOLD
SEED DISPERSER
TERRITORIAL
TREE HOLES



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