Forest habitat is more than just trees. It's all the plants, rotted logs, hollow trees, piles of leaves, branches and even puddles of water that make the forest good habitat. The trees hide all sorts of wildlife that live inside. They use the cover of the trees for protection from predators and weather. But the trees also provide a lot of food sources. For example, squirrels use pinecones produced by the pine trees for food. Inside the pinecones are seeds that squirrels can cache away for a cool winter day. A cache is a hiding place that animals use to store food. How many animals can you think of that have caches in the forest? Don't forget to think about birds!

The forest habitat has many different kinds of trees. There can be ponderosa pine, lodgepole pine, spruce trees and even cottonwood trees. Each different kind of tree can support different kinds of animals. You might find a bobcat lurking among a fir tree forest or a beaver in a stand of aspen trees.

Wildlife also live in different areas of the forest. For example, elk are an edge species. They can stay in the forest for protection, but venture out into meadows when it is time to feed. But for safety reasons, a pine marten rarely leaves the cover of the forest. As long as there are trees around, there is always safety! They also stay in the forest to feed on red-backed voles. These are tiny rodents, like mice, that pine martens feed on. Check out the Wildlife Profiles for more information on the pine marten.

Can you think of wildlife you might find in the forest? Look close and you might find a black bear hiding in its den, a black-capped chickadee perched on a tree branch, or even an elk grazing near the edge of the forest's trees.

Elk stay near the edge of the forest.
Nick Scribner, Habitat Biologist

There are many forests that provide habitat and protect a variety of wildlife in Wyoming. If you walk quietly through a forest you might find black bears, porcupines or dusky shrews. Don’t forget to look in rotted logs, hollow trees, piles of leaves or branches for different plants and wildlife in a forest. The forest supports all different kinds of wildlife because there are also many different kinds of plants.

Wyoming Game and Fish habitat biologist Nick Scribner studies the plants in many different habitats, and he spends a lot of time in the forest near Pinedale. “Part of my job is making sure the forest habitat is healthy so it can support and protect wildlife,” says Biologist Scribner. Forests provide important summer habitat for animals such as mule deer, elk, bears, birds and many others. He studies the age of plants, how many different kinds of plants there are and their health. “This gives me an idea of the health of the forest and the number of animals it can support. I spend many hours a day in the forest investigating things like grasses, forbs, shrubs and all the different kinds of trees Wyoming’s forests have.”

Biologist Scribner spends many hours a day working in the forest.

Biologist Scribner also says, “We use a tool to determine the age of trees. You can count the rings of a tree after it is cut down to determine the age, but we can also use a tree corer to allow us to count the tree rings without cutting the tree down. It takes a out a piece of wood from the tree the size of a pencil and allows you to count the rings. It is great for studying the forest because the tree lives and you can bore hundreds of trees in a day.”

Sometimes Biologist Scribner uses fire to help the forest be the best habitat for wildlife. Some trees such as aspen and lodgepole pine evolved with fire and need it to grow new trees. Fire is also used to increase the amount of grasses and forbs that provide important food for many wildlife species, or to remove sick and dead trees that increase the risk of large wildfires. It is a dangerous job to use fire to manage forests, but several professionals work together and plan for months before any fire is used to make sure people and property will be safe. Many people think fire is bad when it burns the forest, but many forests in Wyoming are unhealthy because there hasn’t been fire over the past 100 years since we began putting out every fire as quickly as possible. Remember, fire can be just as important to habitat as rain and sun.
Elk

Size: male 600 to 1,100 pounds, female 450 to 650 pounds, both standing about five feet at the shoulder.

Eats: elk are grazers, eating woody vegetation, some grasses and lichens.

Lives: in forests near the edge of meadows.

Did you know the elk is a member of the deer family? Elk move quickly and quietly through the forest. A bull, or male, elk reaches speeds of 35 mph when running through the forest. That’s fast! Have you ever heard an elk bugle? Listen for it in the fall. It is the way elk communicate. The bull will make a whistle-like call that ends with grunts. When a bull elk bugles, he is trying to attract a cow, or female, elk. Elk travel in groups called herds.

Pine Marten

Size: around 20 inches long and weighs one to four pounds.

Eats: red-backed voles, other small rodents, sometimes red squirrels, rabbits, reptiles and birds, but it will also feed on pine cone seeds, honey and earthworms.

Lives: in coniferous, or pine tree, forests.

The pine marten is a member of the weasel family. It uses trees in the forest for nesting sites, often using hollow trees, fallen logs, rock dens or even woodpecker holes! Martinens have litters of two to five young that are born mid-March to mid-April. When they are born, they are blind and naked, so they have to be in a safe place in the forest where predators can’t find them. In many places in the United States, the marten was becoming endangered. That is because it is easy to trap, and people used its fur. Also lumbering, or cutting down trees, destroyed its habitat. The pine marten is now protected and is making a comeback in many areas.

Great Horned Owl

Size: large owl usually standing 25 inches tall.

Eats: preys on various creatures like rabbits, beetles, mice, lizards, frogs and even other birds.

Lives: in forests, deserts, open country.

The Great Horned Owl is the largest of the American “eared” owls. Have you ever seen this eared owl? The Great Horned is one of the first owls to make a nest and lay its eggs, often as early as January when there is still snow on the ground! It soars through the forest trees looking for food, or prey. It is such a large owl it doesn’t have a hard time catching prey like ducks, crows and even skunks! Did you know that the Great Horned, like all other owls, coughs up pellets of undigested bones, fur and feathers? You can find these owl pellets near nesting sites. Next time you are in the forest, listen for the “hoo, hoo-hoo, hoo” call of the Great Horned Owl.

Clark’s Nutcracker

Size: about the size of a pigeon, 12 to 13 inches.

Eats: nuts and seeds but is often seen near campgrounds begging for food scraps.

Lives: in forests of ponderosa pine, lodgepole pine or whitebark pine near the tree line.

Have you ever heard of the camp robber? Well that is a common name for the Clark’s Nutcracker. This gray-and-black bird often visits camp sites looking for food scraps and begging anything it can off campers. Keep an eye on your potato chips, or they might just be eaten by the camp robber. This bird works hard collecting nuts and seeds to cache, or hide away for the winter. It even has special pouches under its tongue that give it extra room to store the seeds. That allows the bird to gather more food and return home less often while it is on a collecting mission. It saves the bird valuable energy. The bird has a good enough memory to remember where it hid the nuts and seeds the previous fall, and it retrieves them the next spring to help feed its young.
**Our First Forest**

Did you know the Shoshone National Forest was the first national forest in the United States? Yep, right here in Wyoming. It was first called a national forest in 1891 as part of the Yellowstone Timberland Reserve. It is almost 2.4 million acres of land that not only has trees, but sagebrush flats and rugged mountains, too. That is because when they make borders they don’t follow the exact line of the trees, because the land is always changing. Can you find the Shoshone National Forest on the Wyoming map?

**Forest for FISH?**

Did you ever think about fish living in trees? Sounds silly, huh? But the Wyoming Game and Fish Department uses old Christmas trees in the Flaming Gorge Reservoir to help the habitat underwater. They take the trees donated by people after Christmas and drop them into certain areas of the lake.

**Growing Trees**

Forests in different parts of the country grow at different rates. Even within the Wyoming borders, some grow faster than others. This is because of nutrients, or food, in the soil for the trees to grow on. The weather also plays a role in how fast a tree grows. In some places in Wyoming, a five-foot tree is 30 years old, while in other areas it is only 10 years old. There are some trees that are hundreds of years old! That goes back to when George Washington was President! Think of all the birds those trees have seen.
Have you ever wondered why wildlife have antlers or horns? Antlers and horns come in all shapes and sizes. The bigger the set of headgear, often called racks, the stronger the animal is. Females choose a mate based on the size of the rack because it tells them who may have the best set of genes to pass on to their offspring.

Animals that have antlers and horns live in many different habitats, not just forests. A moose likes to be near water and willows, while a pronghorn antelope roams the prairie. But you will find deer and elk hiding in the forest or near its edge.

Antlers or Horns?

Animals that have horns are stuck with them for life! The males and some of the females grow them, and they never lose them. Horns are made of a material called keratin, which is the same material that your fingernails and hair are made of. Pronghorn antelope have a type of horn, but they are unusual because they fall off each year. They have a bony core that is covered by a black, keratin cover. It is the keratin cover that falls off.

Antlers differ from horns in several ways. They grow mainly on male animals, and the males “drop” their antlers each year. This means that they lose their antlers. Antlers also branch into many points and are made of a bony matter. While antlers are growing, they are covered in velvet, which is a layer of skin filled with blood vessels. These blood vessels provide vitamins and minerals to help the antlers grow. Once the antlers are finished growing, the velvet dries up and the animals rub it off. Next time you are out hiking, look for trees that animals have rubbed their antlers on. The trees have the bark rubbed off.
Coniferous or Deciduous?

There are different kinds of forests. Some are called coniferous and others are deciduous. Coniferous forests are what we think of in Wyoming. They are pine tree forests. Pine trees don’t lose their leaves in the fall. They have needles that are “evergreen,” meaning they stay green all winter long. Coniferous forests have species of trees like ponderosa pine, lodgepole and limber pine. But we also have deciduous forests. Those are forests that have trees like cottonwoods and aspens that lose their leaves for the winter.

Look at these pictures of trees. Do you think they are deciduous or coniferous?

How old is the tree?

Did you know you can tell how old a tree is by counting the tree rings? Tree rings are added each year, as the tree grows bigger. Find a tree stump with a flat top that was cut down by a saw. There might even be some in your schoolyard! Count the rings beginning at the center of the stump. How old was the tree when it was cut down?

Forest Fires

All across Wyoming this summer there were many forest fires. Some even burned houses down. But have you ever thought about how it changes the homes of wildlife? In the beginning it is hard on animals. Food sources are destroyed, and the animals are forced to move into different areas. But it doesn’t take long before the benefits of the fire start to help the habitat. Fire returns nutrients to the soil so grasses are better for wildlife. Trees begin to grow and provide cover. Aspens are often the first trees to grow back, and they are one of the best trees for animals like elk and deer. They provide good cover and food sources for many animals. So next time you are in an area where a fire burned, remember, it won’t be long until new life starts to appear!
Crossword Puzzle

ACROSS
2. These grow on the heads of some male wildlife and are dropped every year.
5. Trees that don't lose their leaves are ...

DOWN
1. Trees that lose their leaves are called ...
3. The material that is the same as your fingernails and hair and makes up horns.
4. These are made from keratin and wildlife don't lose them every year.

Online Links

Want to learn more about forests?
Here are a few web sites to get you started, but don’t forget to look for your own exciting sites!

http://www.fs.fed.us/
http://www.fs.fed.us/r2/shoshone/recreation/
http://www.americanforests.org/resources/kids/