

Student Reading

Winter is on the Way...

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If you had been living in North America many millions of years ago, you would have found the weather warm and damp all year around. There were no winters as we know them. Then the climate began to change. To survive, the kinds of plants and animals living then had to be able to live through the cold seasons.

As millions of years went by, certain kinds of plants and animals lived through the winter better than others. Others didn't do as well, and over the years, they died out. Today, the plants and animals that you find in the northern part of the United States all have ways of behavior or physical characteristics, called adaptations, that help them survive the winter season. Let's look at some of ways in which different kinds of plants and animals are adapted to live through the winter.

Hibernation is a deep sleep in which an animal's breathing, heart-beat, and other body processes slow down until the animal is barely alive. In this way, it survives the winter by using very little food energy. Hibernators include chipmunks, woodchucks, and some bats and mice. Some other animals such as bears and skunks, are not very active during the winter, but they do not hibernate.

Many trees seem to be dead in the winter. In a way, they are hibernating like certain animals. If you cut down through the twig, you will find that the young leaves that will bloom in the spring. They are protected from drying out by layers of tough bud scales.

Migration is not just for the birds. Some mammals, including caribou and some kinds of bats, also migrate. In summer, these caribou feed and raise their young in northern Alaska and Canada. Then they travel south, as far as 800 miles to forests that are somewhat protected from the arctic winter.



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Most – but not all – caribou migrate to find food and reproduce. Some herds roam far; others stay local.

In summer, the snowshoe hare is a grey-brown. As winter nears, a new coat of white-tipped hairs gradually covers the animal. Soon the hare blends into the snowy background. Snowshoe hares also have large, hairy feet – “snowshoes” that enable them to move more easily over snow.



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The snowshoe hare's coat changes color from season to season.

Feet that grow into a kind of “snowshoe” help the ruffed grouse walk on snow.

These birds live in the forests of southern Canada and northern United States. In the fall, a comblike fringe grows on the edges of their toes. This fringe increases the surface of the birds' feet two or three times, enabling them to walk on the snow without sinking.

Making hay is the way that the pika prepares for winter. These rodents, about the size of a chipmunk, live on the rocky slopes of western mountains. Through summer, pikas cut stems of grass and put them in piles to dry. The dried “hay” is then stored among rocks for winter food.



Courtesy of the California Department of Fish and Wildlife

During late summer, the American pika collect plants and store them in “haypiles.”

Look around this fall and winter and see if you can find other ways in which plants and animals adapt to survive.