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HOW DO ANIMALS GET THROUGH THE WINTER? (Part 2)

Animals do many different, amazing things to get through the winter. Some animals hibernate. Other animals migrate, adapt or find shelter.



Migration

When the weather gets cold and food becomes scarce, some animals "migrate." This means that they travel to other places where the weather is warmer or where they can find food.

Migratory birds

Many birds migrate in the fall. Because the trip can be dangerous, some travel in large flocks. For example, geese fly in noisy, "V"-shaped groups. Other kinds of birds fly alone.

How do they know when it is time to leave for the winter? Scientists are still studying this. Many see migration as part of a yearly cycle of changes a bird's body goes through. The cycle is controlled by changes in the amount of daylight and the weather.

Birds can fly very long distances. For example, the Arctic tern nests close to the North Pole in the summer. In autumn, it flies south all the way to Antarctica (near the South Pole). Each spring it returns north again.

Most migrating birds travel shorter distances. But how do they find their way to the same place each year? Birds seem to navigate like sailors once did, using the sun, moon and stars for direction. They also seem to have a compass in their brain for using the Earth's magnetic field.

Other animals that migrate

Other animals migrate, too. There are a few mammals, like some bats, caribou and elk, and whales that travel in search of food each winter. The deer and elk that live high up Utah's mountains, migrate down the slopes in the winter to find food.

Many fish also migrate. They may swim south, or move into deeper, warmer water.

Insects also migrate. Some butterflies and moths fly very long distances. For example, Monarch butterflies spend the summer in Canada and the Northern U.S. They migrate as far south as Mexico for the winter.

Most migrating insects go much shorter distances. Many, like termites and Japanese beetles, move downward into the soil. Earthworms also move down, some as far as six feet below the surface.

Adaptation

Some animals remain and stay active in the winter. They must adapt to the changing weather. Many make changes in their behavior or bodies. To keep warm, animals may grow new, thicker fur in the fall. On weasels and snowshoe rabbits, the new fur is white to help them hide in the snow.

Food is hard to find in the winter. Some animals—like squirrels, mice and beavers—gather extra food in the fall and store it to eat later. Some, like rabbits and deer, spend winter looking for moss, twigs, bark and leaves to eat. Other animals eat different kinds of food as the seasons change. The red fox eats fruit and insects in the spring, summer and fall. In the winter, it cannot find these things, so instead it eats small rodents.

Finding Shelter

Animals may find winter shelter in holes in trees or logs, under rocks or leaves, or underground. Some mice even build tunnels through the snow. To try to stay warm, animals like squirrels and mice may huddle close together.

Not all animals hole up for the winter. Certain spiders and insects will stay active if they live in frost-free areas and can find food to eat. There are a few insects, like the winter stone fly, crane fly, and snow fleas, that are normally active in winter. Also, some fish stay active in cold water during the winter.

Other ways to survive

Cold-blooded animals like fish, frogs, snakes and turtles have no way to keep warm during the winter. Their bodies take on the temperature of their surroundings. Snakes and many other reptiles find shelter in holes or

burrows, and spend the winter inactive, or dormant. This is similar to hibernation.

Water makes a good shelter for many animals. When the weather gets cold, they move to the bottom of lakes and ponds. There, frogs, turtles and many fish hide under rocks, logs or fallen leaves. They may even bury themselves in the mud. They become dormant. Cold water holds more oxygen than warm water, and the frogs and turtles can breathe by absorbing the oxygen that's in the water through their skin.

Insects

Insects look for winter shelter in holes in the ground, under the bark of trees, deep inside rotting logs or in any small crack they can find. One of the most interesting places is in a gall. A gall is a swelling on a plant. It is caused by certain insects, fungi or bacteria. They make a chemical that affects the plant's growth in a small area, forming a lump. The gall becomes its maker's home and food source.

Every type of insect has its own life cycle, which is the way it grows and changes. Different insects spend the winter in different stages of their lives. Many insects spend the winter dormant, or in "diapause." Diapause is like hibernation. It is a time when growth and development stop. The insect's heartbeat, breathing and temperature drop. Some insects spend the winter as worm-like larvae. Others spend the winter as pupae. (This is a time when insects change from one form to another.) Other insects die after laying eggs in the fall. The eggs hatch into new insects in the spring and everything begins all over again.

Questions

1. What three main methods, in addition to hibernation, do animals use to survive the winter?
2. Many animals *migrate* when the weather turns cold. What does it mean to migrate?

Name: _____

SCIENCE

3. Many birds that spend the fall and spring in the wetlands around the Great Salt Lake migrate to other places for the summer or winter. How do they know when it's time to move on?

How do they find their way?

4. Name some other animals besides birds that migrate?

5. Some animals neither hibernate nor migrate. What are some ways that these animals adapt to winter conditions?

6. A coldblooded animal cannot control its body temperature. Its body takes on the temperature of its surroundings. Name some coldblooded animals.

How do these animals survive the winter?

7. What are some things that insects do during the winter?