

# HOW ANIMALS SURVIVE THE WINTER

## Snow activities

Sometimes humans have a hard time surviving winter because of hay fever — a desire to be outside! However, we have plenty of ideas of activities you can do outside, and you can find instructions on our website.

1. Maple taffy
2. Snow cones
3. Snow painting
4. Tree people
5. Ice sculptures
6. Snow imprints
7. Snow cream
8. Tissue paper painting
9. Snow volcano
10. Treasure hunt



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Humans often hole themselves up in their houses to survive the winter in front of the fire with hot chocolate. However, animals have to survive the frigid chill outside in the elements, and they have different ways of dealing with the change in seasons.

Let's take a quick look at how these Iowa animals survive.

### **1. White-tailed deer**

Deer stock up on food in the fall to increase their fat stores for the winter, and they also grow a special winter coat that insulates them as well as helps them absorb more of the sun's heat.

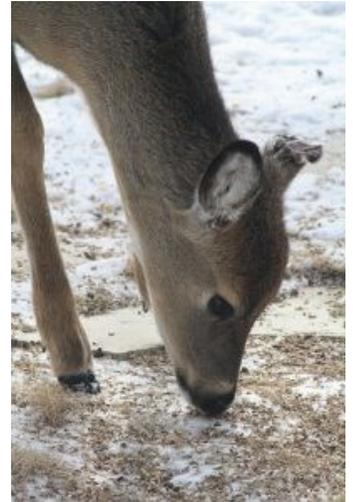
### **2. Bats**

Iowa's two most common bats, and those that you would find in Dickinson County, are the little brown bat (*Myotis lucifugus*) and the big brown bat (*Eptesicus fuscus*). Both of these bats hibernate through the winter.

Hibernation means that a bat's body slows down, including its metabolism, heart rate and breathing rate, so that it can survive a long time without food. A bat's heartrate will drop from 200-300 beats per minute to about 10 beats per minute, and it can go several minutes without breathing. They can stay in this state for up to a month in the winter, mixing that with periodic cycles of normal activity.

### **3. Garter snakes**

To survive the winter, garter snakes will find a safe and snug place underground. They may look for a natural cavity or use a rodent burrow. They also find hibernation areas under rock piles or stumps. Sometimes, they may even look for warm places inside structures and have been found in basements. They can fit through a half-inch wide crack, so make sure to seal up any foundation cracks or window gaps to ensure that snakes do not get in your house in the winter.



### **4. Monarch butterflies**

Most people familiar with monarch butterflies know that they migrate to central Mexico to overwinter. In general, they use their circadian rhythm to orient themselves with the direction of the sun and also use the earth's magnetic field to fly toward the equator.

## 5. Muskrats

Muskrats do not hibernate during winter, and they also don't store food in their lodges like beavers do. That means that they need to find food and eat daily, even in cold weather.

They still live in their main lodges, but ice covering the rest of its habitat restricts it to finding food underwater. Yet, it still needs to breathe so it uses something called push-ups to solve both problems.

## 6. Turtles

A turtle's metabolism slows down as it spends its winter underwater, absorbing oxygen from the water that passes over its body.

## 7. Fish

The fish in the Iowa Great Lakes eat enough to stay alive, but their body processes slow down in the frigid water. They even need less oxygen in the cold water.



## 8. Cottontail rabbits

Rabbits scavenge for waste grain in fields or the bark of woody plants like willow, birch, white oak, rose bushes or sumac bushes. They will protect themselves from the cold by digging a burrow, borrowing another animal's burrow or looking for woody vegetation to huddle under.

Cottontail rabbits do not have a high survival rate, with most not making it more than one year in the wild.

## 9. Fox squirrels

Squirrels eat plenty of nuts, fruit, berries, corn, insects and other items to fatten up for the winter, and then they work hard to cache nuts when food get scarce or hard to find during the winter. One squirrel can hide up to 10,000 nuts per year.

They will crack a nut — to make sure it doesn't begin to grow before winter — and then will bury it just below the surface, hiding it from predators. Studies have even found that squirrels precisely place nuts in certain places, forming a cache of acorns all together and another cache of just walnuts. They then use their sense of smell to find their nuts when they are hungry during the winter.

