

# Nature in Winter

How do animals and plants cope with harsh winter conditions? Animals can move to a better environment, stay in the same place but adapt to the new environment, avoid the problem by hibernating (sleeping all winter), entering a torpid state or just enjoy the season. Plants also adjust for winter.

## HIBERNATION.

The word comes from the Latin word for winter. During cold weather, many food sources are unavailable. Grass and other vegetation dies back and insects disappear.

Missouri's largest true hibernator is the woodchuck or groundhog. He eats as much as he can before winter comes, digs a sleeping chamber in his tunnel, curls up and goes to sleep. Other Missouri mammals that hibernate are ground squirrels, chipmunks and bats.



Cold-blooded animals can't keep themselves warm in winter. Frogs and turtles bury themselves in the mud below the frost line - they absorb oxygen from the air trapped in the mud. Some snakes head underground, others gather in sheltered places, like rotted out logs.

Insects hibernate as well. Lady bugs form huge clusters to spend the winter. Other insects burrow into leaf litter or hide under tree bark.

## DORMANCY

This is a state of reduced activity enabling plants and insects to survive cold, drought or other stress. Most plants drop their leaves before going dormant. Insects like bumblebees spend all summer making honey to eat during the harsh winter months.

## TORPOR

Dormant animals rouse on nice days and look for food - you will encounter skunks and raccoons on sunny days all winter long. Bees eat the honey they spent all summer making.

## MIGRATION

Birds and some mammals move to a more favorable location to spend the winter. Before migrating, birds store fat in their bodies to have the energy to fly long distances non-stop. The American Buffalo once migrated from summer pastures in Canada to wintering grounds in Kansas. The most famous migrating insect is the Monarch Butterfly; it travels from breeding grounds in Canada to wintering sites in California and Mexico. This amazing trip takes several generations to complete; each monarch migrates in one direction during its lifetime.



## ADAPTATION

Animals and birds make changes to adjust to the new season. Some animals change color to better camouflage themselves. Others grow extra thick fur coats. Many, like squirrels, store extra food for the winter. Often they eat different foods; during the summer foxes eat insects and fruit, but in winter they dine on rodents.



## ENJOYMENT

Snow creates a microclimate of relatively constant temperature above freezing. It also provides protection from predators. Many rodents—shrews, voles and mice—have relatively low mortality rates in winter. They remain quite active, and many breed during this time.



Owls mate in January and the nestlings hatch in February. The babies will have enough food when rodents and rabbits have their first litters.

Insects like snow fleas actually swarm and breed on sunny days in the winter.