

THE

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How do animals tolerate the winter Show-Me State? Humans can relocate to cozy homes and wait for temperatures to moderate. Wild critters aren't so fortunate. It's their fate to operate in winter's freezing climate. But, wait. Animals have eight great traits to help them compensate.



Thirteen-lined ground squirrel

"ATES"

Blackburnian warbler



1 MIGRATE

Many birds, such as this warbler, say "I'm outta here!" when winter arrives. They fly to warmer places where there's more food for them to eat. Birds aren't the only animals that migrate. Some bats, fish and even butterflies head south for winter, too.

2 CONGREGATE

When you're cold, do you ever snuggle up with your family or friends? Animals do. Quail, ducks and geese gather together, or congregate, to keep cozy.

Squirrels, raccoons and honeybees huddle up in hollow trees or other hidey-holes to conserve heat.



Quail covey



Prairie vole

pupa

3 PUPATE

Some insects ride out winter as a pupa (*pyoo-puh*). Think of a pupa as an insect's teen years—a time when the baby bug changes into an adult. Lots of insects, including this Polyphemus moth, form a cocoon when they pupate. Some even have antifreeze in their bodies to keep them from turning into bugsicles when temperatures drop.

4

INSULATE

Critters don't wear big puffy coats, but they have something just as good to insulate their bodies against winter's chill: fur and feathers. Foxes and other mammals grow thick fur coats to keep them cozy. Birds fluff up their feathers to trap warm air next to their skin.



Red fox

5 HIBERNATE

A few animals treat winter like a boring movie—they sleep through it. Chipmunks, skunks and bears take long, deep naps during the worst winter weather. Bats, woodchucks and ground squirrels go even further—they hibernate. During hibernation, an animal's temperature drops, and its breathing and heart rate slow way down. If your heart slowed as much as a hibernating ground squirrel's, you'd never wake up!

squirrel



6 GENERATE

We use electricity or burn natural gas to generate heat in our houses. Animals, including humans, generate heat from the foods they eat. For animals trying to survive winter, being overweight is great. Not only does extra fat help insulate their bodies, but they also can use the fat to generate heat.

Red-tailed hawk



Prairie vole

7 EXCAVATE

Voles, mice and shrews excavate tunnels under the snow. The snow hides the furry mammals from hungry predators and acts like a fluffy white blanket, keeping the tunnel much warmer than the air outside. To see how toasty snow can be, build an igloo.

8 TERMINATE

Grasshoppers, mosquitoes and several kinds of spiders lay eggs before winter arrives. The adults die when the first hard freeze hits, leaving the babies to fend for themselves when they hatch the following spring.



Red-legged grasshopper