

# *Doing just fine*

*We have heaters, parkas, and freezers full of food. Wildlife have found their own ways to survive winter.*



**WHITE-TAILED PTARMIGAN**  
Donald M. Jones





*Clockwise from top:*

**RED FOX**  
Melonie Eva

**BIGHORN SHEEP**  
Thomas Chadwick

**NORTHERN RIVER OTTER**  
Cindy Goeddel

*Clockwise from top left:*

**GRIZZLY BEAR**  
Tim Rubbert

**WHITE-TAILED JACKRABBIT**  
Francis C. Bergquist

**PRONGHORN**  
Laura Verhaeghe

## Winter is a fact of life in Montana, and often of death, too.

The worst one in state history may have been the winter of 1886-87. It began with a storm in November that left a one-inch crust of ice across the prairie. A December blizzard followed, then brutal cold in late January that sent temperatures plummeting to minus 60 degrees F.

near Miles City. Cattle ranches lost 50 to 75 percent of their herds, a tragedy immortalized in Charlie Russell's painting of a single starving steer, *Waiting for a Chinook* (One of 5,000).

Even in recent memory, cold and snow reached near unbearable

levels. Record snows fell across the state in the winter of 1971-72. During an Arctic freeze in late January 1989, temperatures dropped to minus 52 degrees F. in Wisdom. The winter of 1996-97 shattered snowfall records again, especially in the state's western half, where residents of Kalispell struggled to dig out from under 12 feet of snow. The winter of 2010-11 dumped so much snow on eastern Montana that trains had to be fitted with plows. Pronghorn and mule deer died by the thousands.

Humans adapted to winter by inventing central heating, double-pane windows, and Thinsulate. Wildlife have found other strategies.

One is to leave. Most Montana breeding bird species head to the Gulf or Pacific Coasts, Mexico, or Central America. Those that stay are well endowed to endure the harsh conditions. Dense feathers extending down to their feet insulate sharp-tailed grouse from the cold. Magpies and crows survive on roadkill, which increases in winter as deer cruise





**BOBCAT WITH MALLARD**  
Cindy Goeddel



**AMERICAN BEAVER**  
Ken Archer



*Clockwise from top left:*



**AMERICAN ROBIN**  
Carol Polich



**MOUNTAIN GOAT**  
Bruce Becker



**HUNGARIAN PARTRIDGE**  
Donald M. Jones

**REMAINS OF A DUCK**  
Joel Maes

**PINE SQUIRREL**  
Diana LeVasseur

roadsides looking for exposed vegetation. Dusky (blue) grouse actually head uphill in winter, living off fir and pine needles while roosting in thick conifer stands. To avoid predation, willow ptarmigan and snowshoe hares turn white and disappear into their snowy surroundings.

Beavers, pikas, red squirrels, and Clark’s nutcrackers cache food during late summer and fall for later retrieval. Badgers burrow underground below the frost line and stay cozy in their dens, emerging

occasionally to hunt ground squirrels, deer mice, or meadow voles. Small rodents spend winter scurrying through labyrinths of snow tunnels, feeding on seeds, sedges, and other bits of stored food when they aren’t fleeing predators.

Some animals snooze through winter. The deepest sleepers are ground squirrels, whose rate of breathing plummets from 200 breaths per minute to just one or two. With no flying insects to eat in winter, bats survive by

entering a state of semi-hibernation known as extended torpor. While hanging upside down in caves, barn lofts, and other “hibernacula,” the winged mammals’ body temperature declines and their metabolism slows to conserve energy.

Black bears and grizzly bears enter a similar semi-hibernation, waking occasionally in their dens—notably to give birth (nature’s most effective alarm clock)—before falling back asleep.

Wild mammals that stay above ground grow specialized coats. Deer and elk have hollow hair that traps body heat. Otter and beaver pelts are so dense that water can’t reach the skin. A thick, woolly undercoat beneath a shaggy outer layer allows mountain goats to endure the most bitter cold.

Deer, elk, and other wild ungulates survive primarily on fat reserves built up in summer and fall when food was plentiful. Wolves, coyotes,





*Clockwise from top:*

**PRAIRIE DOG**  
Donna Ridgway

**AMERICAN BADGER**  
John Juracek

**MULE DEER**  
Dick Walker

**TRUMPETER SWAN**  
Jason Savage

*Above:* **COYOTE**  
Ed Coyle

mountain lions, weasels, and other predators hunt year round. The cold season can be generous to meat eaters. Prey are weaker, more concentrated in their winter range, and often unable to escape pursuit.

Is there anything we can do to help wildlife make it to spring? Bird feeders can sustain individual chickadees, house sparrows, and juncos—plus the sharp-shinned hawks, pygmy owls, and house cats that feed on suburban songbirds. But that food supply is too minor to

assist entire wildlife populations.

Feeding deer or elk, meanwhile, is not only illegal but often harms the very animals it aims to assist. Their complex digestive tracts are made to handle low-protein foods in winter, not the cracked corn, barley, and other high-protein morsels well-meaning people often put out. An elk or deer can actually die of intestinal infection with a stomach full of grain.

Two things do help. One is protecting winter habitat, from dense conifer stands in forests to cattail sloughs and tracts of native grass in prairies. The more suitable habitat that wildlife can use, the better they can withstand what winter sends their way.

Another is regulated hunting. Lacking natural predators, deer, elk, and pronghorn can quickly overpopulate their living spaces. When winter rolls in, there's not enough food or shelter for all, and the young, weak,

and sick die of cold and hunger. By using hunting to maintain populations at appropriate levels, wildlife biologists keep game numbers in proportion to available habitat.

While winter here in the Far North can be cruel, wildlife have found ways to survive and even thrive in conditions that to us often seem unlivable. For the most part, all we can do is observe and marvel at their ingeniously effective survival adaptations and strategies. 🐾