

NATURE DETECTIVES

Winter 2022



Who lives out there in the Snow?

Winter is here in Boulder County, the temperatures have dropped, and you're probably wearing boots, a coat, cap, and mittens some days to stay dry and warm.

What about the wildlife you see in the winter? What happens to them? What do they do to manage the cold season?

Unlike animals like bears, ground squirrels and chipmunks who generally curl up into a cozy den and sleep the winter away in hibernation (or torpor-- a lighter state of sleep), some animals stay active to some degree throughout winter. Let's talk about some of the wildlife you might see and how they are adapted to cold Boulder County weather.

Pull Out and Save

Oh deer...and elk and maybe even a moose

You could see a member of the deer family- deer, elk, or moose- in the winter. Like most other animals you see in the winter, they are less active when it's cold in order to save energy and stay warm. The vegetation (such as grass, moss, twigs, aquatic plants-even fruits and flowers) that is plentiful in spring through autumn is more challenging to find during the winter. In a really snowy cold winter the deer family has to be flexible about what they eat- maybe more twigs than soft grass and greens.

The deer family (like many other mammals) eat a lot in the fall to build up fat stores (meaning energy) to get them through the winter season when food is less available. They grow VERY thick coats. Imagine if you were wearing 5 layers of shirts, sweaters and coats each time you went out in the winter! Deer species spend much of the winter in protected areas where they can avoid cold temps, wind and predators as much as possible.



Bundle up in your fur coat and head out, it's time to eat



Foxes and coyotes are more active in the winter than some other animals. They need to hunt often, and unlike browsing deer family members, foxes and coyotes have to chase their food most of the time! They eat prairie dogs, rabbits, mice, voles, birds, and other small to medium-sized animals. They are opportunistic- meaning they will eat almost anything that they come across- carrion (dead animals), garbage, fruit, eggs, pet food.

Being more active means they may be easier to see across a snowy field. Keep a lookout for them on your nature walks!

They, like the animals we've already talked about, also grow a thick coat to keep them warm in the cold months; foxes use their big bushy tails, wrapped around themselves to help insulate them. When you're wearing a big fleecy warm coat and hat can you imagine you're a warm snug fox?

They can fly...but they choose to stay

As the temperatures dip, heading into winter, many birds migrate, but some birds stay. There are more birds around but let's focus on the strategies of two of our winter bird residents.

One of our smallest birds in winter is the black-capped chickadee- weighing less than half an ounce. To help you understand how tiny that is, a grape or two weighs about the same as a chickadee! How does such a tiny creature survive winter?



Part of the answer- their feathers! They have denser feathers than other birds their size, giving them more insulation. They also "puff up" their feathers, trapping air in order to keep body heat in. Sometimes if it is particularly frigid they shiver in order to create more heat, while tucked in a crevice at night. Do you ever shiver when it's cold?

A chickadee's diet in the summer is primarily insects, but changes dramatically during the winter as there aren't many insects available. They rely much more on seeds, nuts and suet when they find feeders. Chickadees dig into crevices of bark for insect larvae. Another winning approach to eating throughout winter is caching food in the fall to find later. They tuck food into bark crevices all over their territory and can remember where to find hundreds of their "*winter pantries*" later.

From the smallest to the biggest

Eagles are our largest birds to see in Boulder County in winter. We have bald eagles and golden eagles. Let's discuss the bald eagle, pretty easy to identify-you can see the dark bodies contrasting with snow white heads and tails of mature birds, often in the tops of deciduous trees on a winter day.

Interestingly, eagles don't change physically. They don't put on extra fat or grow a thick coat. Instead, they change their behavior.

First, they become more scavenger than hunter-- conserving energy by being opportunistic- eating carrion and going to open water for fish and injured or sick animals.

Second, eagles become more communal-- roosting in larger groups in trees where they get protection together from cold and wind. They can also lower their body temperature a bit just enough to fend off the cold until the rising sun begins to warm them.



Summary

We've learned that each species has its own way of surviving the cold. We now know there are general requirements to surviving winter that our resident animals are suited to in some way. Remember these?

Some kind of **insulation system**- fur, feathers hollow bones

Being less active in general to conserve energy

Building up fat reserves prior to winter for extra/emergency energy

Environmental protection from cold temperatures and wind: dens, cavities, and wind breaks, like trees or sunny slopes

Food availability- either stored or available without spending all the animal's energy

Winter Day Activity

Go to one of your favorite nature spots, open space, parks, or even your backyard on a cold day when there is snow on the ground. Take a nature journal or notebook to write down or draw your thoughts and discoveries.

Choose one of the animals we've talked about. Imagine what it would be like to be one of them. Look around, decide what you would need if you were a deer, coyote, bird... Write in your nature journal what animal you chose.



Are you warm enough? Do you need a warmer coat than you did a couple months ago?

Is the sun out? Do you feel warmer in the sun than in the shade? What does your animal have in winter to help stay warm?

Is the wind blowing? Can you find a spot that you think could shelter your animal from wind and cold? If you can, how do you think it impacts them? Maybe words like warmth, rest, safety, come to mind.

Do you see any of the wildlife foods we've mentioned? If not, can you scrape away some snow and find a bit of green grass or moss? Are there any bushes around? Do they have berries? Or maybe twigs you think could be munchable to your animal? Are there any seeds in grasses?

Check out a tree. Do you see any bugs/larva in the bark? Write down or draw what you find that your animal can eat. If you don't find anything, think about how far they may have to go to find food.

Spend some time "*being your animal.*" What would it be like for them on a day like this?

Write down or draw and color: where are you? What's going on around you?

What are you doing? Who are you with? What does it feel like to be this animal? What are your thoughts about this? What is your favorite thing about this animal?

Now say goodbye to your animal. Wish them a good winter and head in for some hot cocoa or warm soup. Stay warm!

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