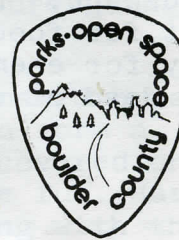


Nature Detectives

WINTER
1985



"Who's been here?" "What were they doing and why were they doing it?" "When did it happen?" Nature Detectives try to answer questions like these by looking for clues and evidence of the activities of creatures in the outdoors.

Have you ever wondered about teeth marks on the trunk of a tree, or strange footprints in the snow or mud? If you have, then you are already a nature detective.

THEME:

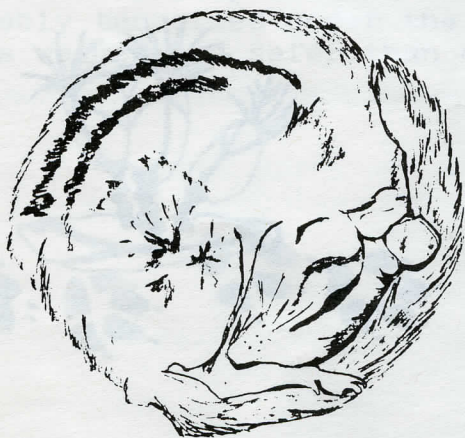


ANIMALS IN WINTER

When it's a shivery 10° outside and snow is falling, you can stay inside your warm house. When the snow stops you can muffle up in a toasty-warm jacket, snow pants, mittens and boots and go outside to snowball fight or make a snow monster - until you get cold and come in again for hot chocolate!

But what about the animals? How do they survive the icy winter? They have no heated homes to come back to!

The Deep Sleepers



Can you imagine going to sleep for six months! Some of the animals do it. Just as you may turn down the thermostat in your house to save some energy in the winter, some animals turn down their 'body thermostats' and go into a very deep sleep, called hibernation, to save energy and let them survive the harsh winter cold.

This is more than ordinary sleep. The heart beats slow down, breathing slows down, the temperature of the body drops, and nothing will rouse that animal until it is ready to wake in spring. This way, the energy stored in the body fat from all that eating in summer and fall, will last until there is food again.

Snow White

What better way to hide from your enemies, if you are a rabbit or hare, than to be just the color of the earth. But that doesn't help in the winter time, when you have to be brave enough to find food in a snowy landscape. Rabbits and hares don't hibernate. All winter they have to hunt for food to survive. The snowshoe hare turns a snowy white, less easy for enemies to see, and goes on finding branches to nibble even in the dead of winter. Furry feet and thicker fur are a help, too. Weasels

are still on the hunt for tasty rabbits to eat in the winter - for weasels are 'predators' eating other animals. They also become white in winter, so they can stalk up on their 'prey' - snowy white except for their tippy tails which stay black. I like to think that gives the hares a chance to see them!



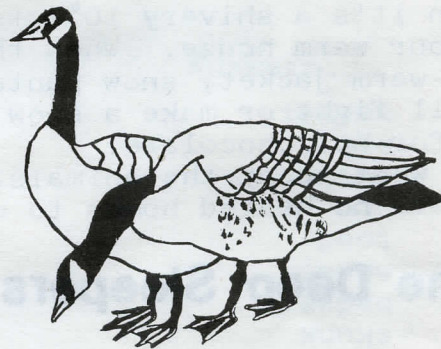
Mighty Myths

Long ago people used to wonder why there were not so many birds around in winter and there were some VERY strange ideas to explain where the birds went.

Maybe little birds hitched rides across the oceans on the backs of big birds? Or maybe birds buried themselves deep in mud for the winter? Or perhaps the birds changed into something else - Canada geese into goose barnacles on the seashore, for example!

Strangest of all, somebody in 1703 wrote a theory that birds migrated to the moon for the winter, taking 60 days to get there!

Now scientists have studied 'migration' and know that many birds fly south to warm places with lots of insects and nectar to eat, but they still don't know everything about how the birds find their way over thousands of miles, and come back to the very same place again the next spring.



What Goes There?

Winter has come. Snow covers the ground. The land appears silent and deserted. But.....on the snowy trail in front of you, you suddenly see footprints - not human tracks but those of another creature! What made them and when? What direction was this mystery creature going? What was it doing?



The SNOWSHOE HARE is well named because its hind toes spread out to form a broad "snowshoe" which is covered on the bottom with thick white fur. Hares bound over the snow, landing with their large hind feet in front of their smaller forefeet.

Each DEER print actually consists of two large toenails! These toenails have evolved (changed) through time into hard hooves which produce a heart-shaped print in the snow. (The bottom of the heart is the back of the hoof.)



PTARMIGANS (TAR-mi-guns) are large birds whose broad three-toed feet are covered with feathers to form another type of built-in "snowshoe". Ptarmigans turn white in winter to match their snowy habitat in the mountains above the tree-line. Look for their tracks around willow bushes, their favorite winter food.

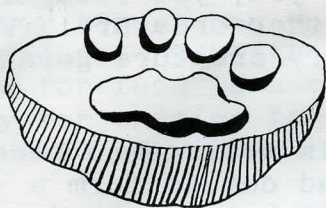
The tracks of MICE and VOLES look like tiny human handprints. Often their tracks just come to an end in the middle of a snowy area....look for a tiny hole where their tracks stop because they have probably tunnelled under the snow where it is warmer and safer than above.



If you see tracks that look like a small dog's, they are probably made by a FOX or a COYOTE - the fox tracks are the smallest. These predators like to pounce on mice tunnelling under the snow, so look for dug-up piles of snow when following their tracks.

Potato Paws

You will need: a potato
a knife--(ask a
parent first!)
or a paper clip--
(to dig+scrape
round curves)
an ink pad or
some poster paint.



Cut the potato in half. On the cut surface draw a favorite print with magic marker. It's a good idea to practice first on paper. . .perhaps copy a pet's footprint. Cut away the potato surface leaving the print sticking up. Press the print onto an ink pad or dip it in a shallow dish of thick poster paint and use it to make lots of tracks! Good for wrapping paper, secret signs, cards. . .bring your own ideas to the tracks activity on February 23rd.



Hidden Animals

All of these animals are around in the winter, but some of them are hibernating and others are waiting out the storm. Can you find and circle 15 of them?

B M N S P T Q L I A M X Z
R A C C O O N S P N J S B
T R B E D A T Q K W C N F
C M M K O D L U S H E A Z
H O D R R C M I C E Y K H
I T B U T T E R F L I E S
P U A E W U V R A B B I T
M X D B U R B E A R O E K
U Z G L V T W L P M Q L X
N B E E G L N S K U N K C
K O R P L E U Q V I T N V

Answers:

marmot	chipmunk
elk	raccoons
butterflies	mice
bee	squirrels
toad	rabbit
snake	turtle
badger	bear
skunk	

Mailbox

Please send pictures or stories about tracks you've seen to Nature Detectives, Boulder County Parks and Open Space, P.O. Box 471, Boulder, Colo. 80306.



Nature Detectives: Tracks tell a tale of animal activities, even when the animals themselves are long gone. February 23rd will be the day of the GREAT TRACK HUNT. See calendar page for details. Outside, we'll hunt for tracks in snow or mud, depending on the weather. Inside, we'll have some fun with track puzzles, potato prints, plaster casts. Kids and their parents welcome!