

Inside: **Guide to Winter Tracks!**

NEW YORK STATE

# Conservationist

DECEMBER 2007

for **KIDS!**

**PREMIERE  
ISSUE!**



**Become a  
Winter  
Wildlife  
Detective!**

**The Scoop  
on Poop!**

**A Guide to Animal Scat**



# Welcome to Conservationist

In these pages you'll learn about exploring the great outdoors in New York State.

for  
**Kids!**

You'll also learn about what kids in New York State, just like you, are doing to help the environment.



Please let us know how you like *Conservationist for Kids*. Also, tell us what you're doing to help the environment. We'll share some of your ideas and experiences with readers in future issues.

Photo montages by DEC

[www.cforkids.org](http://www.cforkids.org)

# You're about to become a Winter Wildlife Detective

So dress for the outdoors, grab your supplies, and you're on your way!



## Watch for the big stuff



Watch all around you for movement on the ground or in the branches. Your eyes alone are a great tool, but binoculars can help too. Binoculars help you to see things far away, making them appear closer than they really are.



## Search for the small stuff

Get up close to objects or crouch down to the ground for a closer look. If you have a magnifying glass, you can take an even closer look. Look for tracks in the snow and places where animals have been eating.

- Supply List:**
- backpack
  - magnifying glass
  - binoculars
  - notebook
  - pencils
  - camera
  - warm clothing & footwear

## Keep a Record

A good detective keeps track of what he or she finds, so bring along your notebook, and perhaps a camera, to record your findings. Bring a field guide (a book with information about identifying natural objects) too. In your notebook, you can write down what you've seen or heard and your thoughts about your discoveries. You can make sketches of things you've seen or tape in photos. Bring along a ruler so you can measure tracks.



Tip: Use a pencil, just in case it's too cold for your pen to write properly.

## LISTEN

## for the sounds of NATURE



### PRACTICE FOCUSING IN ON NATURAL SOUNDS.

- Can you hear chickadees calling?
- The crunch of snow under foot?
- The wind rattling ice-covered branches?

# Watching for...



Bill Banaszewski

**To survive winter**, animals must be able to keep warm and find food and water. If they can't, they must adapt—change their habits to suit the conditions. Some animals migrate—move to a new area where it's easier to find food and stay warm. Others hibernate and sleep the cold months away.

## Hidden Treasures

Most insects spend the winter as eggs or pupae.

Egg cases and cocoons can be found by looking closely at plant stems or the underside of leaves which remain on trees and shrubs.

The egg case from a praying mantis is straw-colored and looks like a piece of shredded wheat

breakfast cereal about the size of a child's thumb. They can be found attached to stems of tall grasses and weeds, especially in overgrown fields.

frost covered egg case from a praying mantis

Dave Speir

## FEEDING

Twigs bitten away hint that rabbits or deer have been by. Take a closer look at the bite. Are the twigs one to two feet from the ground cleanly bitten off at an angle? A rabbit has been eating. If the twig is bitten off but the cut is jagged, it's from a deer. (Deer tear twigs off as they bite.) Once in a while you may find a spot of blood where one animal has caught another. On very rare occasions, you may even find the "leftovers" from a meal. A bit of fur or feathers, or some other part of the prey (animal that is killed and eaten by another animal), left behind when the predator (animal that kills and eats other animals) was scared away or had its fill.



## Tracks

A dusting of fresh snow is ideal for looking at tracks. Footprints tell us what kind of animal passed by. If we look closely, we can often figure out what the animal was doing. Squirrels and rabbits often leave tracks criss-crossing the yard.

Follow the tracks to see where they lead. They may reveal an animal searching for food, perhaps even following another animal.



A great place to look for tracks is near a bird feeder. Birds sometimes hop in the snow under the feeder. Squirrels, mice and voles visit too, often eating the seeds that have fallen to the ground.

Bill Banaszewski



# Winter Wildlife

**We may not see** as many different kinds of animals as in the summer months, but there's still plenty to watch for in winter. We can look for the animals themselves, and we can look for the signs they leave behind as they go about their lives, day and night. The most active animals, such as birds, squirrels and rabbits, are what we'll see most. Other animals, such as deer, foxes and mice, are more secretive. We'll have to watch more carefully for them as we look for the signs they leave behind.

## Scat Chat

Can we talk? After all, what goes in must come out, so another sign to watch for is animal droppings, also known as scat. Sometimes you can find scat near where animals have been eating. Sometimes they mark their territory with scat and urine. With a good field guide to help, you can tell what kind of animal left the scat and what the animal ate. Wintertime rabbit scat is easy to recognize. It looks like small balls of sawdust, from their winter diet of twigs and bark. Foxes and coyotes eat many mice and voles, so their scat has a lot of hair in it. Pellets from owls and hawks are sometimes confused with scat. They are the undigested fur and bones from the small mammals eaten by these birds of prey, coughed up in a neat little package. (Be sure to wear rubber gloves or use a stick if you take scat apart. It sometimes contains harmful parasites.)



Deer Scat

Sue Shaler

fox



deer



rabbit

raccoon



### For more information:

A Guide to Nature in Winter by Donald Stokes (Little, Brown & Company, New York, 1976)  
"A Long Winter Nap" by Anita Sanchez, in Conservationist, December 2006, pp 22-23.

The Seven Sleepers by Phyllis S. Busch (Macmillan Publishing Co., New York, 1985)  
Track Finder by Dorcas Miller (Nature Study Guild Publishers, Rochester, New York, 1981)  
Watching Nature by Monica Russo (Sterling Publishing Co., Inc., New York, 1998)

A guide to

# Winter Tracks

These are just a few of the most common tracks we see in winter in New York State.

When you find tracks, look at the shape of each footprint, and look for toe marks. This will help you figure out which way the animal was going. The toes point the way, so follow the tracks to see where they lead. Use all the clues around you – tracks, feeding, scats, and others – to solve the mystery of what kind of animal left the tracks and what it was doing. There are many different field guides to winter tracks. They can be a big help as you get better at studying tracks and want to learn more.



**Dog**



**Cat**



**Squirrel**



**Eastern Cottontail**





**White-footed Mouse**



**Coyote**



**White-tailed Deer**



**Red Fox**



**Raccoon**



**Turkey**

**DETECTIVE BADGE**  
(cut me out and wear me)

Look @ **FIELD JOURNAL**

A field journal is a diary of what you see, hear and experience as you explore outdoors. All you'll need to begin is a notebook and something to write with. For each entry, write the date, location where you are exploring, and what the weather is like. Take your journal outdoors with you so that you can take breaks and write down your discoveries as you find them. You can also make sketches of the things you see. If you like, you can tape in photos you take during your adventures. Record whatever is of interest to you: animals you see, signs of animals, plants you see, sounds you hear, cloud patterns in the sky. You can even record how seeing and experiencing these things made you feel!

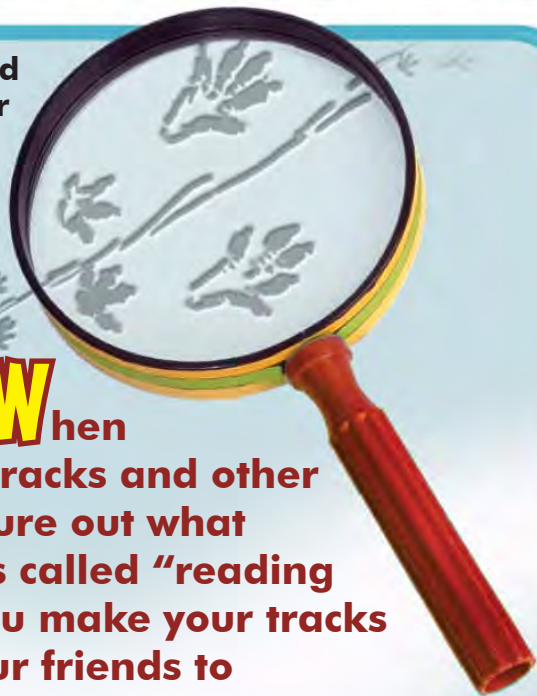


# Become a Track Detective!

**W**hen there's fresh snow on the ground, head outdoors and look for tracks. Use the winter tracks guide (pages 5 & 6) to help you figure out which animal made the tracks. Follow the tracks and try to figure out what the animal was doing. Make drawings of the tracks in your field journal, and record when and where you saw them. It's fun to photograph tracks too. Pictures are best if taken in early morning or late afternoon on sunny days.

**I**f you can't find animal tracks, make your own. Take turns with your friends making and following each others' tracks.

**W**hen we use tracks and other clues to figure out what happened, it's called "reading the trail." Can you make your tracks "tell a story" for your friends to "read" and figure out?



New York State **CONSERVATIONIST FOR KIDS** Volume 1, Number 1, December 2007

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# New York State Department of Environmental Conservation *Conservationist for Kids*

www.cforkids.org

Supplement for Classroom Teachers

"Winter Wildlife Detective" – December 2007



Alexander B. Grannis  
Commissioner

## **Leave No Child Inside**

The New York State Department of Environmental Conservation (DEC) is proud to share a new magazine with you and your students: *Conservationist for Kids*. Research has demonstrated a spectrum of developmental, health, performance and social benefits of children's experiences with nature. *Conservationist for Kids* has been developed as one aspect of the DEC's proposed *Leave No Child Inside* program to encourage children in New York State to explore natural areas and develop an interest in environmental stewardship. The magazine, and an accompanying teacher supplement, will be distributed to public school fourth grade classes three times each school year (fall-winter-spring). *Conservationist for Kids* and the teacher supplement are available at [www.cforkids.org](http://www.cforkids.org) in both HTML and PDF formats. You can e-mail us at [cforkids@gw.dec.state.ny.us](mailto:cforkids@gw.dec.state.ny.us) to provide feedback or suggestions.

## **Using *Conservationist for Kids* in the Classroom**

Information and activities in *Conservationist for Kids* encourage readers to explore outdoors at school and at home. You may wish to read it together as a class activity, or have your students read the magazine independently. The activities in the magazine may be completed by your students at school or at home. Additional activities and resources can be found in this Teacher Supplement and on our website: [www.cforkids.org](http://www.cforkids.org)

## **MST Curriculum Connections**

The activities in *Conservationist for Kids* have been correlated to the New York State Math, Science and Technology Learning Standards for 4<sup>th</sup> grade, below. Connections to other learning standards may also be valid.

Keep a Field Journal: MST1. *Scientific Inquiry* 1-3  
MST4. *The Living Environment* 1-7  
Become a Track Detective: MST1. *Scientific Inquiry* 1

## **Supplemental Activities for the Classroom:**

### Feed the Birds

*Materials needed for each student:* pine cone string  
popsicle stick  
peanut butter\*  
bird seed\*

\* If you are concerned about peanut allergies, substitute suet (beef fat) for the peanut butter and select bird seed without peanuts.

*Student Instructions:* Tie the string around the pine cone so you can hang it outside when it's done. Use the popsicle stick to cover the pine cone with peanut butter, stuffing it into all of the cracks. Roll the pine cone in bird seed, pushing as many seeds into the peanut butter as possible. Hang the pine cone outside and wait for the birds to find it. Refill it as often as needed. Keep a record of which birds visit your feeder and what their favorite foods are. (Note: Squirrels like these too, and may bite the string and take the whole pine cone away. Make a bunch in case the squirrels take some.)

### Make your own “binoculars”

*Materials needed for each student:* two empty toilet paper tubes  
string

*Shared materials:* stapler  
single hole punch  
crayons or coloring pencils

*Student Instructions:* Line the tubes up side by side and staple them together. Punch a hole near one end of each tube and tie the string between them so you can hang your “binoculars” around your neck. Decorate them with drawings of the animals you’ve seen. Take your binoculars outside and look through them to spot wildlife. They won’t make distant things appear closer, but they will help you to focus on one animal or object at a time to concentrate on it closely.

### Scat Rap

Go to [www.cforkids.org](http://www.cforkids.org) to try out the Scat Rap, all about animal droppings. Have your students make up their own verses about what they find as they explore outdoors.

### Scat Unwrapped

If you find scat while you’re exploring outdoors, use a stick or wear rubber gloves and break it apart. Try to figure out what kind of animal left the scat, and what it ate. Though not scat, owl pellets are fascinating to dissect since they contain bones, in addition to fur. Class sets of sterilized owl pellets for dissection are available from science suppliers.

### Teacher Workshops

For teachers who have participated in a Project WILD or Flying WILD workshop, the following activities complement the current issue of *Conservationist for Kids*. For information about workshops to obtain these curriculum and activity guides visit

<http://www.dec.ny.gov/education/2035.html>

#### Project Wild Activities

Learning to Look, Looking to See  
Urban Nature Search

#### Flying Wild

Bird Buffet  
Feeder Frenzy

### More Great Stuff

Printable activity sheets can be found on the *Conservationist for Kids* website: [www.cforkids.org](http://www.cforkids.org)

### **Recommended Resources (additional resources are listed in *Conservationist for Kids*):**

*Animal Tracking and Behavior* by Donald & Lillian Stokes (Little, Brown & Company, New York, 1986)

*Exploring Nature in Winter* by Alan M. Cvangara (Walker & Company, New York, 1992)

*A Field Guide to Animal Tracks* (3<sup>rd</sup> edition) by Olaus J. Murie & Mark Elbroch (Houghton Mifflin Co., Boston, 2005)

*National Audubon Society North American Birdfeeder Handbook* by Robert Burton (Dorling Kindersley Publishing, Inc., New York, 1995)

“Winter Tracks” pullout in *Conservationist*, February 2001. At <http://www.dec.ny.gov/4791.html>

*Conservationist for Kids*, 625 Broadway, 2<sup>nd</sup> Floor, Albany, NY 12233-4500

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## **The Scat Rap**

CHORUS: It starts with an "S" and it ends with a "T"  
It comes out of you and it comes out of me.  
I know what you're thinking, but, don't say that.  
The scientific word for that is scat.

You're walking through the woods and your nose goes "ooh".  
You know some animal's laid scat near you.  
It may seem gross, well that's O.K.  
They don't have toilets to flush it away.  
Now don't go screamin' and loose your lunch  
If you picked it apart you could learn a bunch about - SCAT

CHORUS:

If you wanna find out what animals eat.  
Take a good look at what they excrete.  
Inside of their scat are all kinds of clues,  
Parts of food their bodies can't use and that's - SCAT

CHORUS:

If you park your car in a woods or a field  
You might find scat on your windshield.  
Some of it's purple and the rest of it's white  
You just got bombed by a bird in flight and that's SCAT

CHORUS:

It tells us what they eat and it tells us who they are  
That's what we know about scat so far.  
If you wanna find out what animals are around,  
The place to start looking is the scat on the ground.

CHORUS:

Words based on "Scat Rap" written by Rodd Pemble, Mary Keebler and Andy Bennett,  
Great Smoky Mountain Institute.  
Word adaptation and music by Peter Moore and Tom Ernst.