

# Every track tells a story



DURING A RECENT overnight snowfall in my city, a bird settled on the sidewalk outside my house while I was asleep. A cat came around the side of the house, saw the bird, crept up, and pounced. But the bird got away, and the cat walked off empty-handed (or empty-pawed).

I didn't get to see any of this happen, but the whole story was there in my yard when I woke up. It was "written" in the tracks in the snow.

It was a fairly easy story to read just by looking at the prints in the snow. I recognized the paw prints of a cat. I could see where it had walked, where it had stopped, and where it had sprung. A big indentation in the snow at the end of its trail, surrounded by bird tracks, showed where the bird had been and where the cat had landed when it pounced. Judging by the lack of feathers or disturbed snow in the area, the bird flew away. Its tracks disappeared when it took to the air, and the cat's tracks continued to walk away from my yard.

Back when people had to hunt for food, tracking game animals was an important skill. Today many people learn tracking for fun or study. They enjoy following the trail of a fox to try to get a glimpse of it. Or perhaps they're researching a specific type of animal. You can learn to track, too.

"You don't necessarily see all the animals that are in your neighborhood," says Richard Curtis, "but they're around." Mr. Curtis is director of the Outdoor Action program at Princeton University in Princeton, N.J. "The tracks will be there after the animals have gone," he says, "and it's lots of fun and challenging to look for clues about them in their tracks."

Snow can make tracking both easier and harder. It's easier to track small animals in the snow, such as birds or mice. They are too lightweight to leave clear tracks on hard ground, but a light snowfall makes a good tracking surface.

But a soft snow will also make it harder to tell the difference between the tracks of a cat or a dog of about the same size, because this type of snow makes it hard to distinguish details of a single track.

In general, though snow makes it easier to follow an animal's trail, so tracking an animal in the snow is a good way to begin to learn to track. "Start with the big picture," Curtis says. Where does the trail go? How many animals are involved? Do the tracks go straight or wander around?

Once you have the big picture, look more closely.

Check the track to see which direction the animal was heading and what kind of

**SHARPEN YOUR TRACKING SKILLS, AND YOU'LL BE SURPRISED WHAT YOU CAN 'READ' IN YOUR YARD.**

animal made it. You may be surprised at what you can learn about the things that go on when you're not looking.

Expert trackers can learn to observe more than footprints. When tracking animals in fields and forests, they look for paths used by many animals. They examine shrubs or tree trunks to see if any animals rubbed or scratched themselves there, leaving pieces of fur. Some animals will claw a tree trunk as a warning or an invitation to other animals. Flattened areas in a grassy meadow may show where an animal rested or slept. Some animals, such as beavers, gnaw on nuts or fallen branches. A bird's feather may be snagged on a branch.

Squirrels or chipmunks leave nutshells behind. In the early morning of a sunny spring or summer day, the dew on the ground makes everything shiny.

If an animal crosses the grass, it wipes away the dew. Now that area will look duller than the surrounding grass. All animals leave droppings that can yield revealing clues. Good trackers learn to notice a wide variety of indicators about animals and their behavior.

Expert trackers also know that they have to be careful about encountering the animals in person.

Most animals won't hurt the trackers, but people can harm the animals even when they aren't trying to. Especially in winter, animals need all their strength to survive. If you startle an animal away from its young, it may abandon them.

Or it may exhaust itself running away from you and have little energy left to hunt for food. So trackers follow trails carefully and wisely. They learn to be clever detectives.

Trackers start by figuring out where they are most likely to find the animals they are looking for. Herbivores (animals that eat vegetation) will hang out near their

food supply - brush and grass. They stay in places where they can hide from predators - among rocks, tall grass, or in ground that can support safe burrows. Predators also show up in these herbivore hangouts when they are hunting.

You'd think that a watering hole would be a good place to find animals. You will see predators there, but most herbivores avoid watering holes. They get their water from dew and from the plants they eat.

In cities, sources of food might be different. Birds will be drawn to feeders put out by humans. Cats and dogs might check out sites where garbage is left out. Squirrels raid bird feeders if the food is to their liking. You will also find squirrels near trees that produce nuts.

Look around your neighborhood, and think like an animal. What food sources do you see? That will give you places to start looking for tracks.

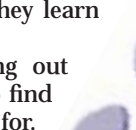
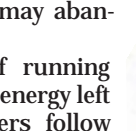
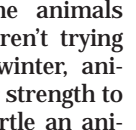
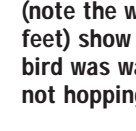
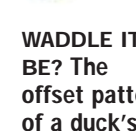
The tracks will also tell you if the animal was walking, hopping, trotting, or galloping. Each animal has its own way of putting two or four feet down when it moves along the ground.

Just as your steps are farther apart when you run, running animals leave footprints that are farther apart. Some animals plant their feet in more of a straight line as they travel faster. With a little practice, you can learn to "read" many of the kinds of clues an animal leaves behind.

In the winter, a fresh overnight snowfall should give you plenty of opportunities to find animal tracks.

Then keep your eyes open and your mind working. You'll be surprised at how much you can find out.

Sharon J. Huntington



**DOG, WALKING:** Notice how a dog's back paws almost step into the prints its front paws made. Wolves and coyotes walk more 'neatly'; their back paws step directly into their front-paw tracks.

**BOBBIN' ROBIN:** Pairs of bird tracks set close together show that a bird was hopping. Birds that hop generally don't spend much of their lives on the ground.

**WADDLE IT BE?** The offset pattern of a duck's trail (note the webbed feet) show that the bird was walking, not hopping.

## On the trail of more information

### Books

**Crinkleroot's Book of Animal Tracking** by Jim Arnosky (*Bradbury Press, 1989*). Crinkleroot explores the clues that tell him about animals of the wilderness. Grades 3-6.

**Big Tracks, Little Tracks: Following Animal Prints** by Millicent Ellis Selsam (*Harper-Collins, 1999*). Be a nature detective by following the tracks and odors that tell you which animals have passed through an area. Grades 2-5.

**Tracking & the Art of Seeing** by Paul Rezendes (*Harper-Perennial, 1999*). This well-illustrated book covers a wide range of North American animals. All ages.

### Websites

[www.princeton.edu/~oa/nature/tracking.shtml](http://www.princeton.edu/~oa/nature/tracking.shtml) The 'Outdoor Action Guide to Animal Tracking' includes descriptions of the many signs that tell you where an animal has been, including prints.

[www.sesameworkshop.org/parents/activity/article.php?contentid=14966](http://www.sesameworkshop.org/parents/activity/article.php?contentid=14966) The Sesame Street animal tracking activity explains how to set up a site for study and then look for small animal tracks at the site.

S.J.H.



**CAREFUL DEER:** Look closely at this track. See how each hoofprint is really two prints? A walking deer's hind feet step into the prints left by its front feet in a 'double register' track.

**WHICH WAY DID HE GO?** An Eastern cottontail rabbit hops by planting his two front paws (one behind the other) and then bringing his big back feet forward to make the longer prints. This bunny is making a snowy track from left to right.



**SAME SQUIRREL:** Like the rabbit (below), squirrels plant their front feet and then bring their back feet forward. Squirrel tracks look different in sand (above) and snow (right). In snow, the back of the squirrel's back leg makes a longer impression.

## Watching from space

**H**AVE you ever seen geese flying and wondered where they were going? Until recently, it was hard to figure out where migrating creatures went. Today, small electronic tracking devices attached to a few animals can track a migrating group.

Now astronauts and junior-high school students are getting into the act, too.

Canadian astronaut Robert Thirsk flew on a space shuttle in 1996. Two years ago, he was reading about an endangered species and realized that space flight and technology could help. "Almost every astronaut looks out the window," he says, "and can't help seeing how beautiful and how fragile our world is."

Today, Thirsk's Space for Species project involves junior-high students using technology to map the migrations of polar bears, caribou, peregrine falcons, and leatherback sea turtles. The program uses satellite telemetry, remote sensing, astronaut observations, and weather satellites to gain a large-scale view of the animals' lifestyles and patterns of movement. Students keep tracking journals and create maps based on the data.

The program is open to students worldwide. Go to: [www.spaceforspecies.ca](http://www.spaceforspecies.ca)

S.J.H.

TODAY'S ARTICLE ON CHRISTIAN SCIENCE

For kids

## An important message from Harry Potter

IN THE SECOND BOOK in the series, "Harry Potter and the Chamber of Secrets," we meet a funny new character, Gilderoy Lockhart, a new teacher at Hogwarts.

The author J. K. Rowling shares little details about him that make us laugh. His autobiography is called "Magical Me." He's a five-time winner of Witch Weekly's Most-Charming-Smile Award. The walls in his office are covered with pictures of himself that he has signed. And he apparently uses rollers to curl his hair.

But as the story goes on, it's clear that Gilderoy Lockhart isn't just a fun character. The books he writes are filled with lies. His bragging puts others down. He pretends he can do things, and then he fails with disastrous results. And in the end he tries to run away because he's afraid to help defeat the deadly basilisk serpent.

Gilderoy Lockhart wants to be admired and respected. He wants everyone to think he's great and to like him. So he tries to impress everyone by pretending to be something he's not, and it doesn't work. In the end, both the kids and the teachers see through his big talk, and they laugh at him.

It's normal to want others to like you, to want them to be your friends and think you're wonderful. So how do you get there? What works?

To start out, it's important to be clear about who you already are. The Bible calls God the creator. The very beginning of the Bible tells how God made all the living creatures and the earth and seas, and then He made man in His image and likeness. When God

was finished, He looked at all He had made and saw how good it was. God keeps on creating very good things.

Being the image and likeness of God means we're special. Nothing could be better than being like God! But how are we like God?

In a book about God called "Science and Health with Key to the Scriptures," the author, Mary Baker Eddy, said that we reflect God. We're like a reflection in a mirror. Of course God is Spirit, and so we're a spiritual reflection. We don't reflect God as a physical body, but we reflect the qualities of God. God is loving, and so are we. God is strong, and so are we. God

It's normal to want others to like you, but how does that happen?

is everything good you can possibly think of. All the good things that make up God make up who we are.

And all those good qualities are in a one-of-a-kind combination in us. Each of us is special, like no one else. We use those qualities from God in our own special way, and so we are each needed to make God's creation complete.

When you know who you are, this takes over your thinking about yourself. You start being more and more who you really are. Being like God makes you wonderful. You'll be a good friend. Other kids will want to be with you. They'll respect you.

Being respected and admired is not the same as being well known. Remember - everyone knew Gilderoy Lockhart.

When you reflect God in your own special way, you will naturally be a good friend. You will be the kind of friend other kids respect and admire.

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