

SCAT

*Get the scoop on what animals might be around
by identifying their poop*

MATTERS

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A pile of black bear scat lays on the side of a dirt road in Pocosin Lakes National Wildlife Refuge. Black bear scat usually smells like dirt.



When I accepted an education position with the Wildlife Resources Commission over nine years ago, little did I know that my affectionate work nickname would become “Scat Lady.”

As my reputation for being passionate about scat has grown over the years, I delight in coming to work anticipating what fascinating wildlife sign may have been left on my cluttered office desk. Will it be part of an otter “toilet” (a spot where one or more otters mark their territory) that my trapping mentor, Jimmy Pierce, found and thought would be a great addition to my collection? Will it be a fresh canid dropping (perhaps from a threatened red wolf or common coyote) that Missy McGaw, our agency photographer, found during one of her trips to Pocosin Lakes National Wildlife Refuge? Or maybe I will finally receive some sought-after bobcat Tootsie Rolls—in perfect condition, white and full of hair—that will give me an authentic sign of this elusive animal, the ghost I have yet to see in the wild.

My fascination with scat started during a visit to the Pisgah Center for Wildlife Education in Brevard. Joining Lee Sherrill, the program coordinator at the education center, on a hike to a beaver pond was a game-changing event for me. As a wildlife educator, I love to engage my audiences, whether they are enthusiastic first graders; peer-restrained, ultra-cool middle schoolers; or skeptical adults. Consequently, I am always on



The river otter often defecates in the same area to mark its territory, where evidence of fish scales and crayfish exoskeleton and claws can often be found.

the lookout for the hook that pulls them in; gross and disgusting hooks are often the best. When Sherrill dug in his backpack that fateful morning, pulled out small, brown chocolate-like pieces, passed the beaver scat around and asked participants if they could see what looked like sawdust in the candy-size chunks, I knew that I had found fodder to enhance my own programs.

I headed back to Raleigh intent on finding my own beaver scat to dry and preserve, beginning the habit of always having Ziploc bags on walks and hikes because you never know when you will see a dropping too perfect to pass up. Today, it is great fun to share this collection with colleagues who want to use our scat collection in their own programs. Goodbye crappy store scat models, hello to the real stuff, which is just so gross, yet fun and enlightening, at the same time.

My passion for scat has enhanced my own outdoor experiences by improving my observation skills, which has led to greater experiential knowledge of which wild animals are using the same habitat that I am exploring. It's like being able to identify trees or other plants by sight, or birds by sight or sound. The more you know about the world you live in, the more you can appreciate its wonder and conserve it for tomorrow.

I am now more aware of what type of animal may be in an area and I will look for signs of its presence: a trail, plants eaten, tracks, and the mother lode of indicators—scat. For example, finding fresh mink scat on a river boardwalk makes me ponder what the animal was doing. If I have time, it leads me off the boardwalk to try to find the animal's trail or tracks.

(It is important to be cautious when handling scat because there are a variety of pathogens and parasites in wild feces that could be harmful to humans. Always wear gloves if you do handle scat and be sure to wash your hands well afterward.)

ENTER THE WILDNESS

French travel writer Sylvain Tesson wrote that “[t]here is consolation in wildness.” In fact, wildness comes in many forms and many locales, whether in the unbroken forests of the Blue Ridge, deep Coastal swamps or the greenway creek running through a Piedmont town. Scat allows us to tap into the real-but-unseen wildness by opening the stories of animals. All we have to do is look and see, and perceive and learn.

Wild turkeys are a great example of how scat can tell a story. Adult male (gobbler) and adult female (hen) turkeys have different shaped scats due to differences in the structure of their intestinal track. Hen scats are typically spiral in shape; gobbler scats are typically J-shaped. All of these rules go out the window with juveniles, or poults.

So, the first step to identifying species based on their droppings is being able to always tell the differences between bird and mammal scats. In general, bird scats have a different consistency than mammals, are often made up of vegetation or small insects, and are white on one end because of uric acid in their systems.

Once you get a search image of the scat developed, the unique shapes of turkey scats can allow you to tell a lot about the turkey flock in any area in which you hike. In the spring, during breeding season, hens will flock together with gobblers and will then be on the move on and around nests. During this time, they often travel along, or dust in, dirt paths or roads. By identifying their scat, it is easy to get a general idea whether there are a lot or just a few turkeys on a track of land, the general sex composition of the flock (a lot of males, a lot of females) and how often they move along these paths or roads.

Later in the summer after the poults have hatched, their scat will be along the roads as well. In general, this can tell you if the hatch is completed and whether there are a lot of poults in an area at any one time. In addition, poult diets during the summer primarily consist of insects because they need protein for faster growth. Pulling a dried poult scat apart reveals this seasonal diet. Of course, turkeys do not only travel paths and roads, but the information from these travel lanes can be substantial. Combined with sightings, and in the spring gobbling, “scat data” expands your horizon of “turkeyology.”

A SCATTERING OF CLUES

Now, whenever and wherever I am biking, whether on a greenway along the Neuse River or hiking on paths in Lake Raleigh Woods, I am always on the lookout for animal droppings on logs, at the junction of trails, in clearings, along greenway edges and on bridges. When I find some, the challenge is to figure out what animal was walking here and decided to mark this spot. My search radar for spotting critter scat is fairly keen.

As a wildlife educator, a recurring goal is to get my audience to think about an animal's needs: food, water, space and shelter. I can talk all day long about what food animals eat, however *seeing* what the animal eats creates a lasting impression. I know this may be

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Wild turkey scat can indicate the gender of the scat maker. Toms tend to have J-shaped poop (top), while hens' scat is more spiraled.





River otter

Scat Field Guide

Animal scat can come in all sorts of shapes and sizes. So, be sure to keep our handy scat guide with you to help identify what you may have almost stepped in or stumbled upon. Remember: Use caution when handling animal scat. Use of a stick or gloves is strongly recommended for observing animal scat. Raccoon scat should never be handled and can be deadly to humans. Avoid it!

BEAVER: This oval-shaped scat is about 1 to 1 ¼ inches in diameter and filled with sawdust-sized wood chips. Their scat is not easily found since they spend most of their time in water. Keep an eye out for it on a route to or near a beaver chew.

BLACK BEAR: Black bears are omnivorous, so undigested animal parts may be visible in their scat. This can include insect exoskeletons, nuts, berry seeds, grasses, and fish scales or bones. After eating a healthy berry crop, a black bear's scat might appear as a loose pile with no particular shape. Black bear scat is large, often 1 to 2 inches in diameter.

BOBCAT: Bobcat scat takes on a characteristic white color as it dries out. Their scat is segmented (think Tootsie Rolls) with blunt ends and can be found on trails, sides of roads and at trail junctions. It is denser than coyote scat, and when dry feels harder than coyote scat when stepped on with a shoe.

COYOTE: This species' scat is usually tapered at both ends and somewhat twisted, about three-quarters of an inch in diameter and up to 4 inches in length. Coyote scat may contain evidence of hair, bones, fruit and berry seeds.

FOX: What makes fox scat distinctive from coyote scat are its pointy ends that are somewhat twisted and narrower in diameter (about half an inch) and shorter than coyote scat. Fox deposit their scat on rocks, stumps or logs to mark their territory.

MINK: This scat is long and twisted, resembling a braided rope that is about a quarter of an inch in diameter. It has tapered ends and may fold over itself. Evidence of small bones, fur and feathers may be present.

OPOSSUMS: These omnivores eat insects, fruits, berries, grain crops, small mammals, carrion, birds and eggs—as well as garbage. Due to their wide range of foods, their scat is neither distinctive nor easy to identify.

OTTER: Not surprisingly, otter scat can be found near waterways. Their scat may have no significant shape but is identified by the presence of fish bones, scales and pieces of crayfish. Otter “latrines” or “toilets” are places where one or more otter go to the bathroom in the same location, and they may even roll their scat with nearby vegetation.

RACCOON: Raccoon scat can be found in the crotch of a tree, on rock outcroppings, fallen trees and stumps, and at the junction of trails. These droppings are often black in color and may contain evidence of berries, insects, fruits, fish and shellfish.

SKUNKS: Even though skunks are omnivores, most of their diet is made up of insects. Oftentimes their droppings may only contain insect parts; sometimes the entire scat is made up of bee exoskeletons.



Southern flying squirrel

SQUIRREL (GRAY AND RED): The scat of these squirrels is similar in size (about an eighth of an inch to a quarter of an inch), in smooth ovals or odd-shaped pellets and can be brown or black in color.



Bobcat

Mink

Black bear

Coyote

Beaver



What Happens to Droppings After They Are Dropped? See Nature's Ways, page 43.



"HUMANS HAVE A VISCERAL CONNECTION TO ANIMALS, ESPECIALLY WILD ANIMALS. RELATED TO THAT CONNECTION TO WILDLIFE, CHILDREN AND ADULTS GET A VISCERAL IMAGE BY STUDYING ANIMAL SCAT."



Even reptiles and amphibians can leave a scat story to be told. Who lives here? What have they been eating?



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disgusting, but making the animal's diet come alive by looking at what comes out the other end is second best only to actually seeing what that animal has eaten.

Sometimes, it is even more fun to use the real-life clues around us to make a game out of figuring out what animals are nearby. For example, if you ask a kid which animals live near water, chances are good that the answer will be otter or mink, because that is what he or she has heard but may have never seen. Next, let that same kid discover turds filled with fish scales or crayfish exoskeletons, and another set of droppings close to the water's edge with fur and maybe some small bones. Then ask the kid to identify which one came from an otter and which one is from a mink. This will really get the child thinking about what these two animals are doing in the aquatic habitat they both frequent. A lightbulb might turn on in the youngster's head, realizing that both animals live near water but reduce competition by eating different foods.

What is better than having children discover insect exoskeletons in the personal piles left by our largest native mammal, *Ursus americana*? Black bear populations are high in the Mountains and Coastal Plain regions. Bear scat, at least black bear scat, is a good example of the value of smell in being a "Scat Lady." Depending on the location, season and local foods, bear scat can vary greatly in color and texture. But no matter where you are, black bear scat usually smells like dirt and has blunt ends on each section where it is separated.

In areas where there are animals that might have similar-sized droppings, like a small black bear or a large coyote, you cannot only rely on sight for identification, but must also use your sense of smell to tell the difference. If a scat smells really foul (but is not from a fowl), it is most likely from a coyote or fox or one of the members



of the weasel family. The worst possibility is that it might be a domestic dog. It is good to always be careful where you put your hands...and nose.

Humans have a visceral connection to animals, especially wild animals. Related to that connection to wildlife, children and adults get a visceral image by studying animal scat. Try it, you soon may find your search image for scat significantly improving along with your appreciation for the wildlife and habitats that make North Carolina such a diverse and unique place to live. ♦

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