

# 3. HABITATS ON THE EDGE

## (1) Can You See the Signs?



Wildlife signs, like **tracks** and **scat**, are clues about who lives here and how animals survive in their **habitats**.

### Connecting with Science Standards

Strand/Category	Grade	Standard(s)	Benchmark(s)
Life Science	4	Form, structure, function, habitat	Structures, body systems, food web
	5		Habitat, food webs
Scientific Thinking/Practice	4/5	Methods	Observation & interpretation

**Goal:** By studying the **tracks**, **scat** and other signs of local wildlife, students will learn which animals live at Bottomless Lakes and how they survive.

#### Objectives:

- Identify scat and track signs.
- Interpret the activity of those animals.
- Understand the difference between **carnivores**, **herbivores** and **omnivores**.
- Focus attention and **observation** skills through recording, writing and drawing.

#### Materials:

- Rubber track and scat replicas; including mule deer, bobcat, coyote, raccoon, cottontail, various rodents, waterfowl, roadrunner, scaled quail.
- Scat/track identification cards or field guides
- Clipboards
- Pencils
- Hand lenses
- Ruler
- Data recording and observation sheets

#### Background

Even though there are many animals living in and around Bottomless Lakes State Park, we don't always get to see them. Time of day, time of year, weather, and the number of people visiting the park all affect wildlife viewing.

However, even if we don't always get a chance to see the animals themselves, they do leave behind valuable clues that teach us about how they live (and die) here. Signs like tracks (footprints) and scat (droppings or excrement) can tell us a lot about who they are, what (and who) they eat, their size, how they move, and how healthy they are.

Other wildlife signs include tunnels, holes, chewed leaves and grass, pieces of fur, shed skin, bones and skulls, nests, feathers, eggshells, flattened grass, piles of dirt, and webs.

# HABITATS ON THE EDGE

## Can You See the Signs?



### Procedure I - Scat Track-Meet

1. Hand out rubber scat and track replicas to students. Make sure students know they're only rubber!
2. Explain that they have either a track or scat of an animal living at Bottomless Lakes.
3. Once they've determined if they have a track or scat, ask students what kind of animal they think their 'sign' is from.
4. Have students find their 'match'. For example, if a student has a track, she/he will look for the scat that they think is from the same animal.
5. Once students are correctly paired-up, ask them to examine their track/scat together.
6. Discuss the differences is between carnivores, omnivores and herbivores. Ask students what they think their animal is. (Refresher: Carnivores are meat-eaters, herbivores are plant-eaters and omnivores eat both)
7. Hand out data recording and observation sheets. Students will answer questions and write down observations
8. Have each team make a short presentation to the class about their animal signs.

### Procedure II - Trail Signs

1. Have students remain with their partners from Procedure I.
2. Explain that students will now look for animal signs on the trail and around the lakes.
3. Hand out track/scat keys, animal sign ID cards, hand lenses, clipboards, pencils and data collection observation sheets - one set per team.
4. Teams will find, observe, investigate and record various animal signs they find within the designated area. Make sure students know how far they can go.
5. Time permitting: After students meet back at starting point, ask teams to talk about their favorite animal sign discovery.

# HABITATS ON THE EDGE / Can You See the Signs?

## Vocabulary

**Carnivore:** any animal with a diet consisting mainly of meat, whether it comes from animals living (predation) or dead (scavenging).

**Habitat:** an ecological or environmental area that is inhabited by a particular animal or plant species. It is the natural environment in which an organism lives, or the physical environment that surrounds a species population.

**Herbivore:** an animal that is adapted to eat plants and not meat. Herbivores form an important link in the food chain as they transform the sun's energy stored in the plants to food that can be consumable by carnivores and omnivores up the food chain. As such, they are termed the primary consumers in the food cycle (chain).

**Observation:** receiving knowledge of the outside world through the senses.

**Omnivore:** an animal that eats both plants and animals as its primary food source. They are opportunistic, general feeders not specifically adapted to eat and digest either meat or plant material exclusively.

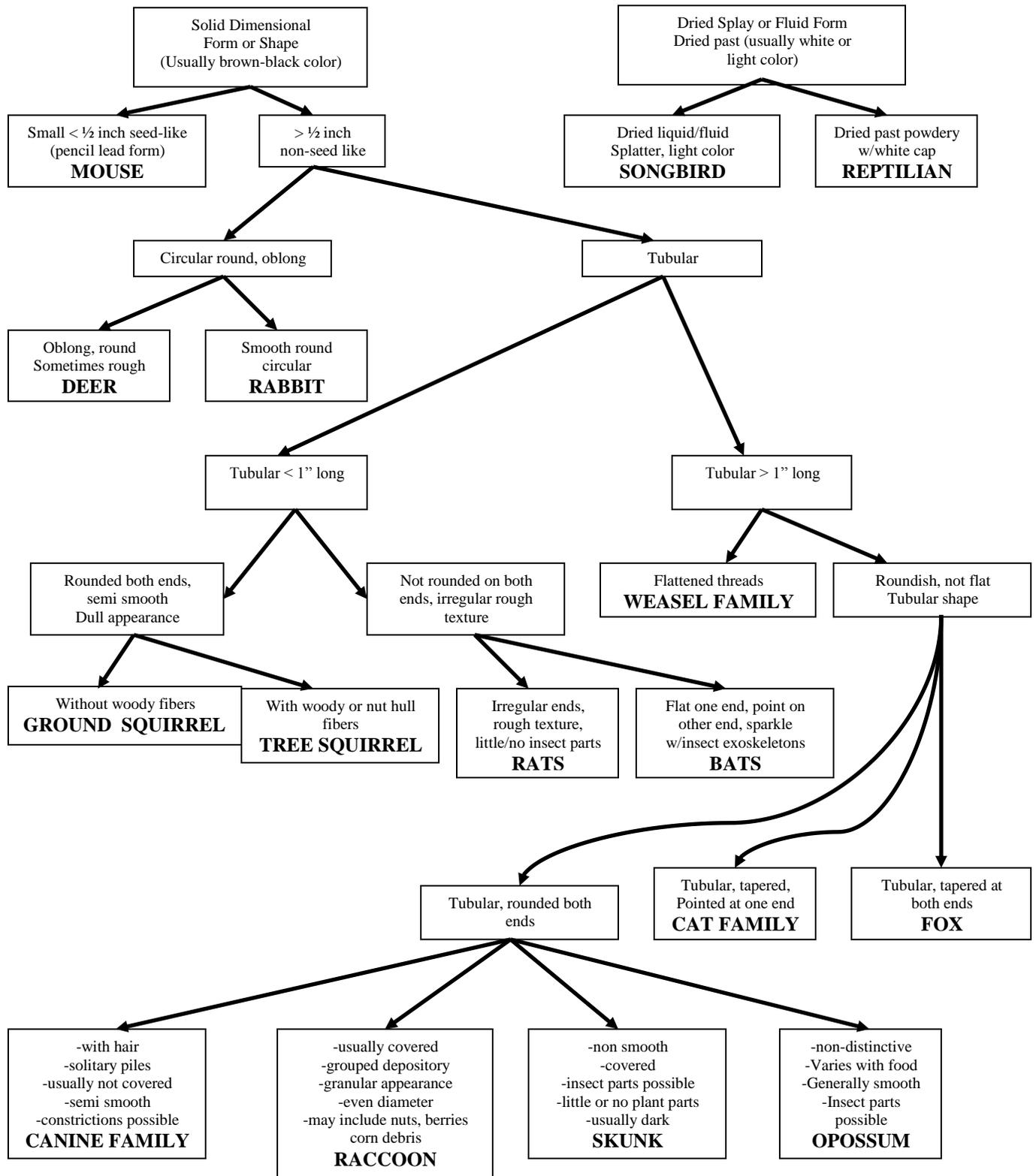
**Scat:** animal droppings or feces. Scientists studying scat can determine the health of the individual animal by analyzing the chemical content of this material, as well as looking for seeds, plant parts, berries, and other indicators of the animal's diet.

**Tracks:** the imprints left behind in soil, snow, mud, or other ground surfaces that an animal walk across. Animal tracks are used by hunters in tracking their prey and by naturalists to identify animals living in a given area.



# Can You See the Signs?

## The Key to Identifying Wildlife Scat





# Habitats on the Edge: Scat and Track Observation Worksheet



Team/Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Important Observations to Make When Identifying Scat

Safety First!! Look, don't touch! If necessary, use a stick or other tool to avoid contact.

### FOR EACH WILDLIFE SCAT YOU FIND, ANSWER THE FOLLOWING QUESTIONS:

1. How big is it? Measure both length and width with ruler. \_\_\_\_\_
2. Identify its shape by circling the closest description. Is it:
  - a. Round like a pellet?
  - b. Tubular?
  - c. Are the ends flat or pointed or is one end flat and the other pointed?
  - d. Is it smooth from one end to the other? Or is it segmented like a natural fibered rope?
3. Is there one dropping or multiple droppings? One \_\_\_\_\_ Multiple \_\_\_\_\_
4. Can you identify any undigested hair, bone, seeds or insect wings in the droppings?  
If so, describe: \_\_\_\_\_  
None \_\_\_\_\_
5. Does the scat look fresh or old? \_\_\_\_\_
6. What color is the scat? \_\_\_\_\_
7. Based on your observations, using the scat identification key and field guides, what animal do you think left this scat behind?  
\_\_\_\_\_
8. Do you think the animal that left this scat behind is a(n): \_\_\_Herbivore (plant-eater)  
\_\_\_ Omnivore (plant and meat-eater) \_\_\_ Carnivore (meat-eater)