

TRACKS & SCAT WORKSHOP

1) Among all evidences left by wild animals, tracks are probably the most commonly encountered. Like fingerprints are used to identify humans, you can use tracks to identify the type of animal. When you first discover a track, the first step is to draw a conclusion on which animal type made the track. Use your computer and look at tracks for each of the following animal types and list some features that are unique to each animal type.

- i) Mammals: Tracks show prints made by toe pad, could show claw prints.
- ii) Birds: Four toe pattern, usually 3 forward – one back
- iii) Waterfowl: Bird foot pattern, but shows webbing between toes.
- iv) Frogs: Small print with webbing, bulge show at tip of toes.

2) Over thousands of years, the toes of some mammals have been reduced to a smaller size, moved position on the foot or have been lost. For mammals, we can use the number of toes in the track to narrow the id to the family group. Scan through images of track for each of the following family group and record the number of toes on the front foot and back (hind) foot.

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|-------------------------|---------------------|--------------------|
| i) Canine (Fox/Coyote) | Front: <u> 4 </u> | Hind: <u> 4 </u> |
| ii) Weasel (Mink) | Front: <u> 5 </u> | Hind: <u> 5 </u> |
| iii) Rodent (Groundhog) | Front: <u> 4 </u> | Hind: <u> 5 </u> |
| iv) Ungulate (Deer) | Front: <u> 2 </u> | Hind: <u> 2 </u> |

3) When measuring a print to determine size, one should try and measure what is called the minimum outline. This is the points in which the rounded pads of the animal turn upward and would no longer be in contact with the ground. Below are two tracks, what do you make out their measurements to be?



Fox: Fox 1 3/4" x 2 1/8"



Raccoon: 2 7/8" x 2 1/2"

Why should you not completely rely on track measurements for a positive id?

Like humans, there is size variability in animals, including the issue of juvenile and adult animals. This is why you will always have a range for track size. There are different species in the same family group that will overlap in their track measurements.

4) The term "track" refers to an impression made by a single foot. The term "gait" or "trail" refers to a line of tracks that make up the animal's movements. An animal that walks on four legs can move in the following patterns: walk, gallop, bound. Use your computer to explore each of these walking patterns. Draw or write how each of these walking patterns are different and list an animal that uses each pattern.

Bound - Squirrel – A pattern where the hind feet land on the ground at the same time and side by side. The front feet also follow this same pattern.

Gallop – Deer – A pattern where the hind feet land in front of the front feet.

Walk – Coyote – An evenly spaced pattern, alternating sides. Hind print may land on top of front print.

5) Tracks of some species show a very characteristic shape and are easy to identify. The casts of some of these species are pictured below. Who are they and what is the distinctive feature of the animal track? (Feel free to use your resources.)



(note: Yearling, Adult almost 2x larger)

A: Bear – sheer size



B: Beaver - webbed toes



C: Opossum - opposable toe

6) Below are some common tracks of animals that people can encounter in Hunterdon. Using the resources of the internet and what has been explained so far, can you figure out these animal tracks?



Walking stride

A. Skunk

Bounding stride

B. Gray Squirrel

Walking stride

C. Raccoon

7) Tracks are not the only evidence that animals leave behind. Scat can also be used to help you identify animals in your surroundings and can tell you what the animal was eating. Scat is first described by its shape: spheres (rounded pellets) and cords (elongated segment). Cords are then divided further by their general pattern of the segments: tapered ends, blocks, and folded. Below are four animals that represent each of these patterns. Find pictures of scat for each of these animals and determine which animal best represents what pattern.

- A: Deer: spheres
- B: Coyotes: cord – tapered
- C: Mink: cord – folded
- D: Raccoon cord – blocks

8) Again, sometimes scat is easy to identify by a key characteristic. Explore the scat of these three animals and determine what is so distinctive about each one?

- A: Goose nitrogen (green) and frequency (amount of scat)
- B: Bear large size, nothing compares to it
- C: Fox hair in mass, tapered tips, about the same roundness of an adult's pinky finger.

“Tracking” means more than just looking at and examining the various tracks and scat of animals. It includes identifying any type of evidence left behind by the animal. These last set of questions are meant to expose you to other types of evidence that animals can leave as proof of their existence and activities.

9) Pellets form in the gizzard of birds and are compressed masses of bones, fir, and other parts of the prey that are not digestible. These birds cough up pellets about twice a day at their roost sites usually

before taking to flight. Pellets cannot directly identify the bird. However, one particular bird group is known for their pellets. Who and Why?

Owls – because they re-use the same roost, their pellets accumulate on the ground under the roost. Pellets are a means of possibly locating an owl while sitting on its perch.

Look online about what owl pellets can tell us about the diet of owls. If you are interested in dissecting one, many Nature Company Supply stores offer them for sale. What are some prey animals that owls eat and that you might find in a pellet?

Rodents, squirrels, birds, bats, rabbits, etc.

10) Some rodents can be recognized by how they feed on nuts and acorns. Below are links to two fact sheets about two different squirrels in our county. Can you find the comment about how one eats differently than the other squirrel and how it can be used to identify the animal?

<https://animals.net/flying-squirrel/>

http://www.mammal.org.uk/sites/default/files/factsheets/grey_squirrel_complete.pdf

Flying squirrels are smaller than Grey Squirrel and to save energy they simply chew into the center of their nuts. This leaves nut shells intact with a chew hole as proof for Flying Squirrels. Grey Squirrels tend to shatter the nuts because of their larger size.

11) Another sign of evidence that animals leave are scrapes and rub marks. Below are the three most common animals that make such marks. Search through the internet for examples and list why the animals are making these marks.

- a. Turkey – Evidence of feeding
- b. Deer - Bucks rubbing the trees to remove the velvet from antlers
- c. Bear - Means of marking territory

12) The last type of evidence that will be mentioned is scent marking. These scents linger in the air for a couple of days. However, except when freshly sprayed or rubbed, humans typically do not notice these odors. What is the purpose behind these scent markings and what are some of the animals that use them?

Marks the edges of territories, most commonly done during the breeding season. Foxes, coyotes, bears, mice, skunks, etc. All wild mammals scent mark to some degree.

If additional help is needed, please email Tsheppard@co.hunterdon.nj.us.