

Tracking

MAMMALOGY 2019

Expectations for Today

- You will be expected to be able to:
 - Identify species based-off their tracks
 - Identify species based-off their scat
 - Describe common sign resulting from teeth
 - Recognize other types of sign and attribute them to appropriate species/taxa

Tracking

- Tracking is goal oriented: what are you trying to track and why? e.g.:
 - Assessing which scavengers have been eating carrion
 - Determining which animals are damaging crops
 - Assessing the presence of multiple species in an area
- As such, taking in the full picture and capturing as many details as possible is important



Common Types of Sign

- Tracks
- Scat
- Teethmarks
- Other environmental alterations unique to individual species or clades



Tracks

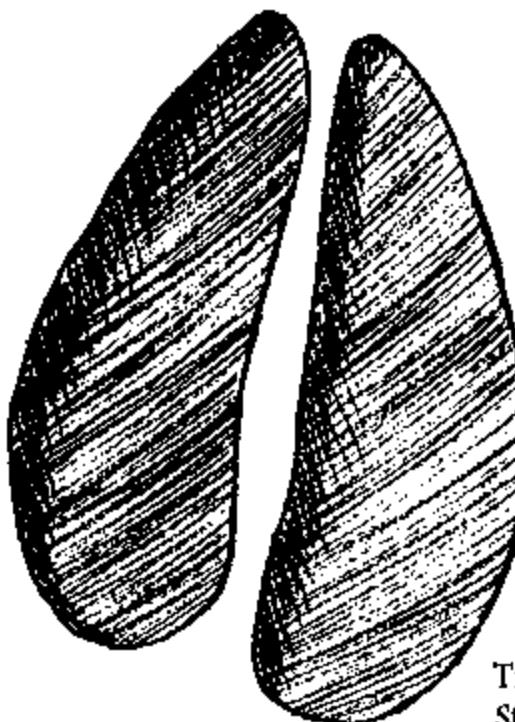


- Tracks – footprints left by an animal that has passed through an area (typically left in mud, snow, or other malleable surfaces)
- Things to look for:
 - Symmetry
 - # and placement of toes
 - metacarpal/heel pad shape
 - Nails/claws
 - Negative Space



Elk

Elk



4 $\frac{3}{4}$ " L x 3" W

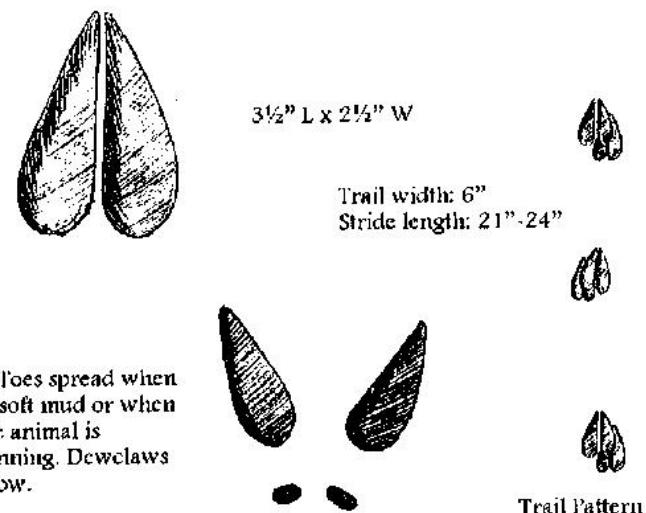
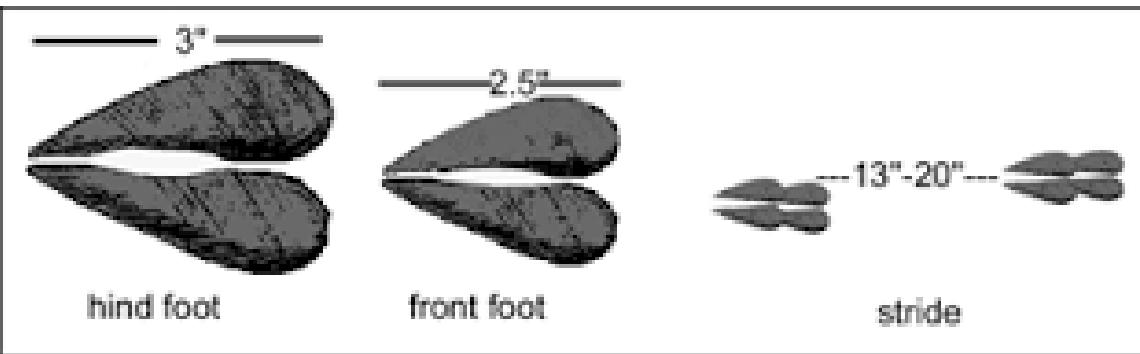


Trail width: 8"
Stride length: 26"-28"



Trail Pattern

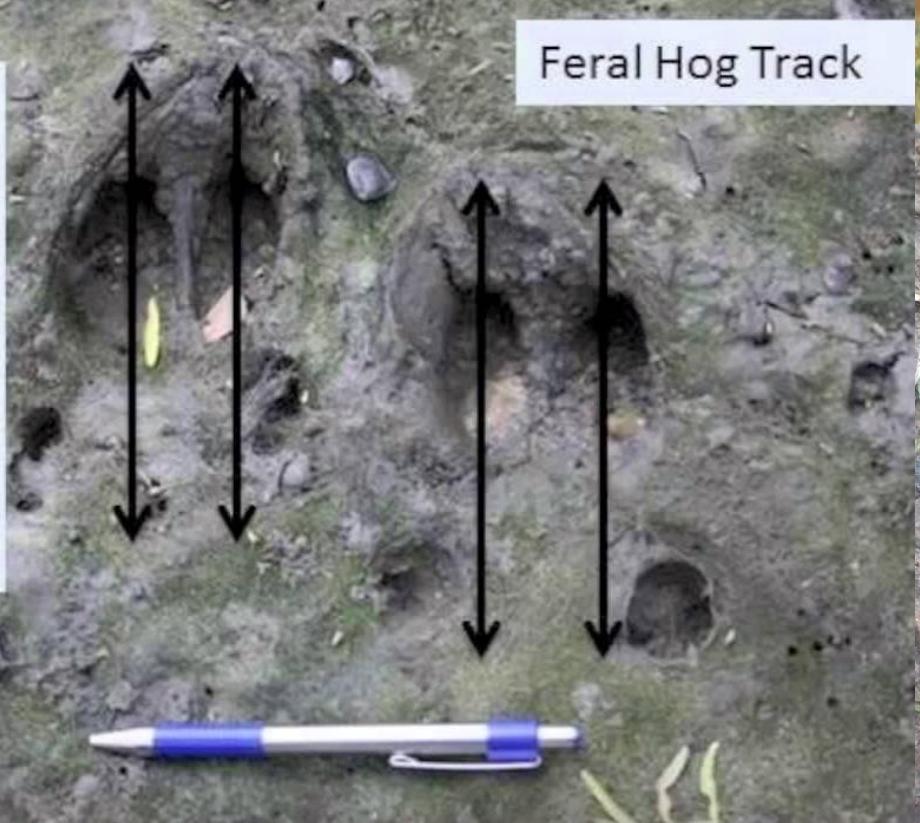
White-tailed deer



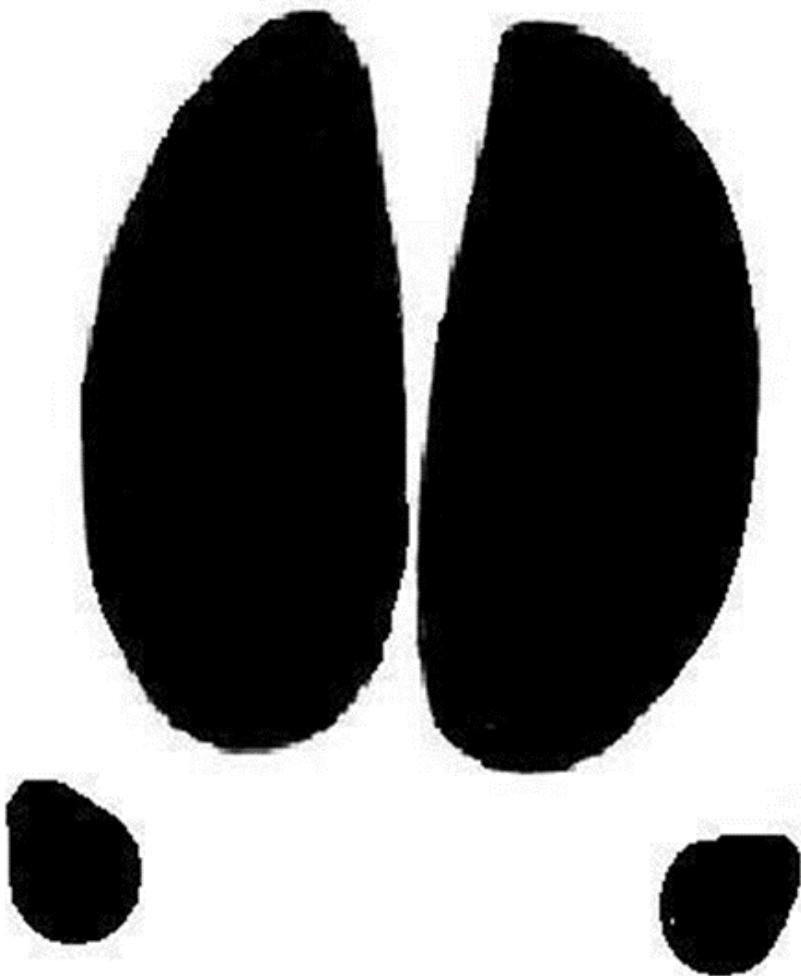
Feral Hog



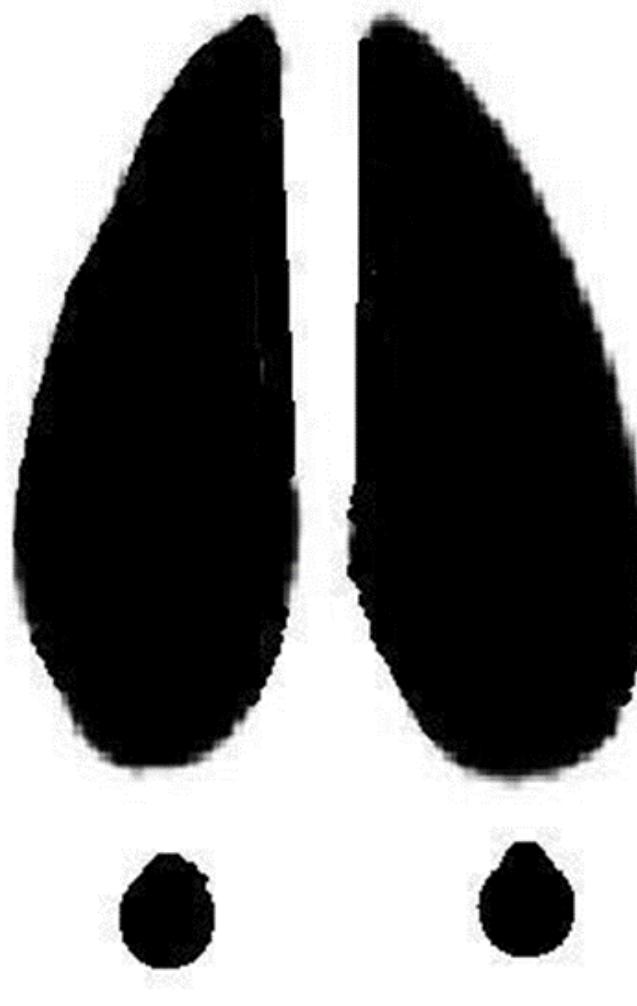
Round and squat with dew claws angled out towards the outside of the hoof print.



Wild Hog



Deer

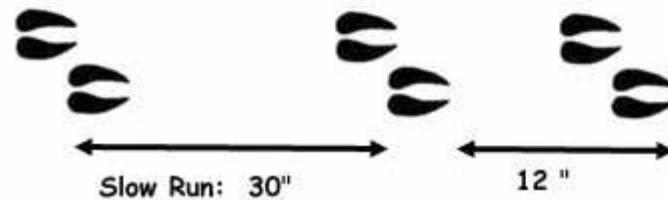
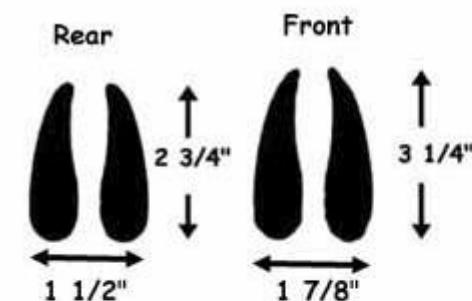


Pronghorn



5356585

Track size depends on
animal's size. Average
size shown.



Wild horse



Which direction are
these tracks headed?

Which set is a
domestic horse?

Black Bear



Front foot

4 1/2" L x 3 3/4" W

Black Bear

Round front heel
pad doesn't
always show in
tracks.



Hind foot

7" L x 3 1/2" W



Trail width: 14"
Stride length: 18"



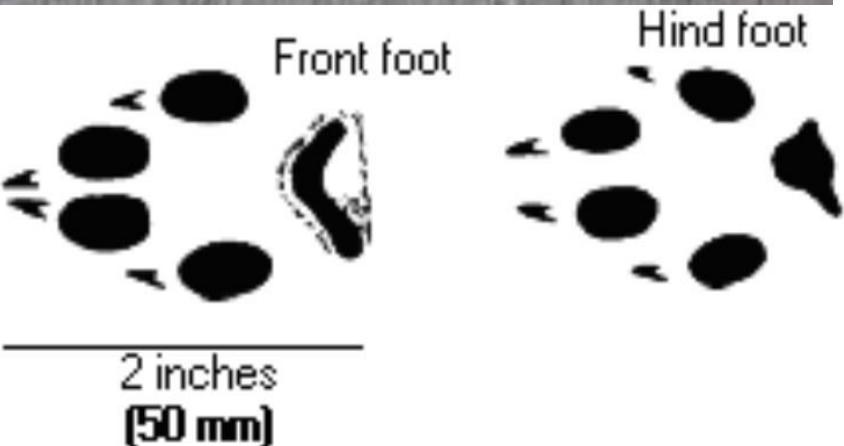
Trail Pattern

Red Fox



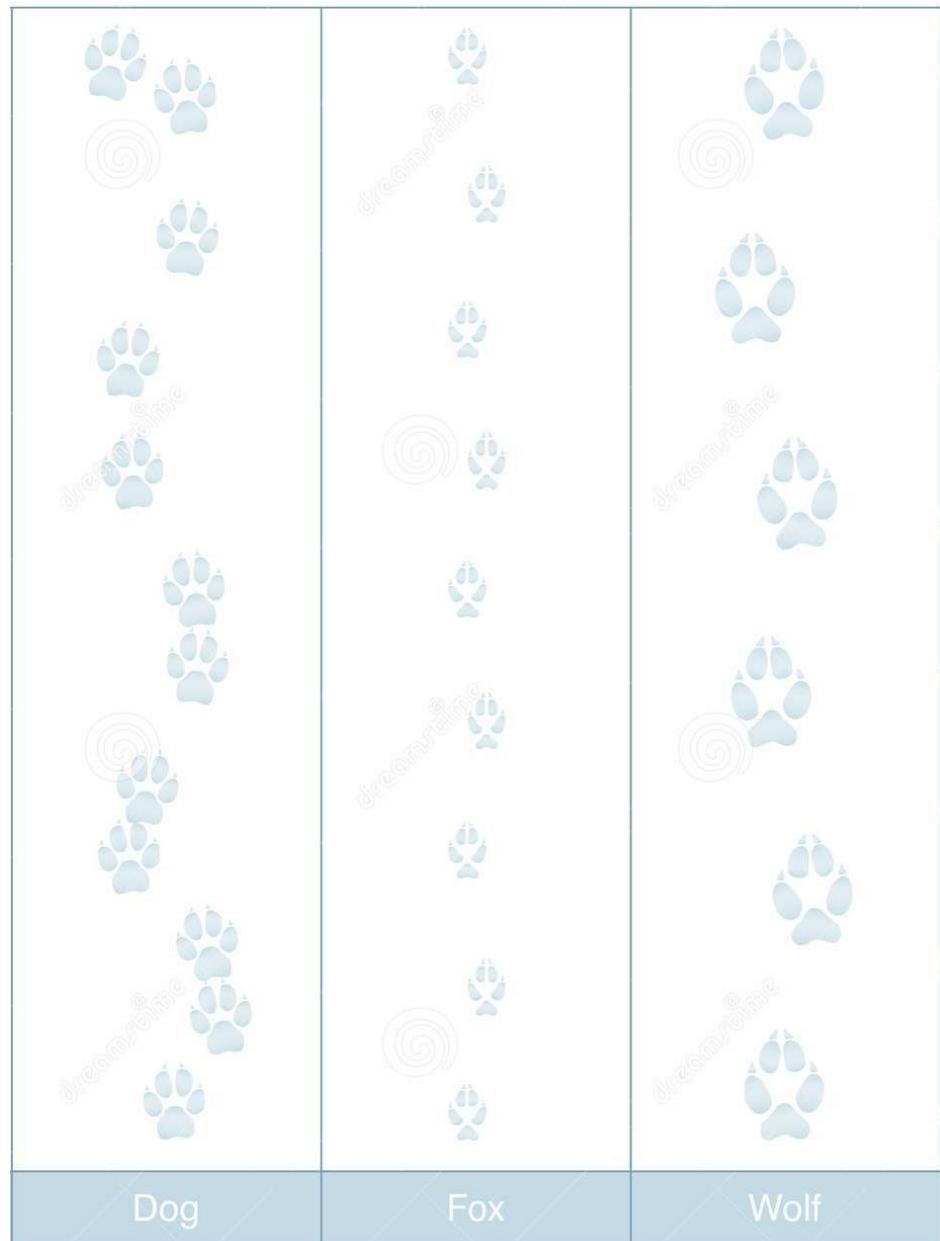
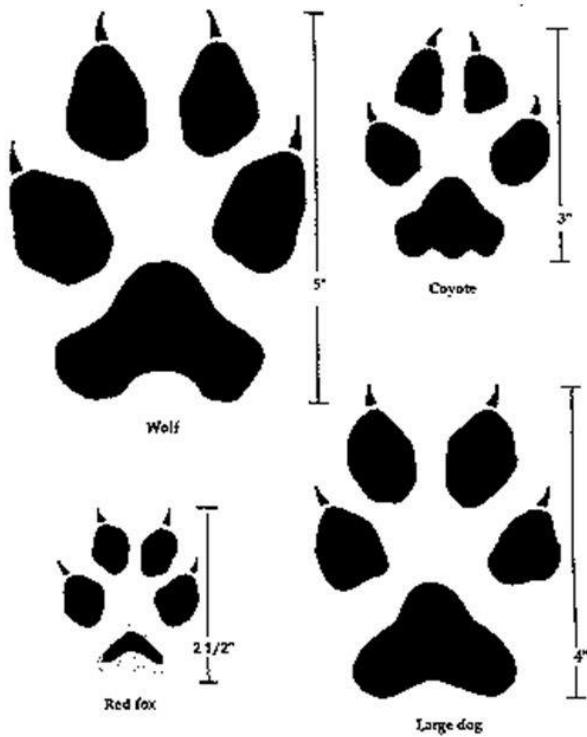
Trotting

8-15 inches
(203-381 mm)



Canids

- Wild canids typically have narrower gait than domestic dogs



Bobcat

Bobcat



Front foot

2" L x 1 7/8" W



Hind foot



1 7/8" L x 1 1/4" W



Trail width: 5"
Stride length: 10"-13"

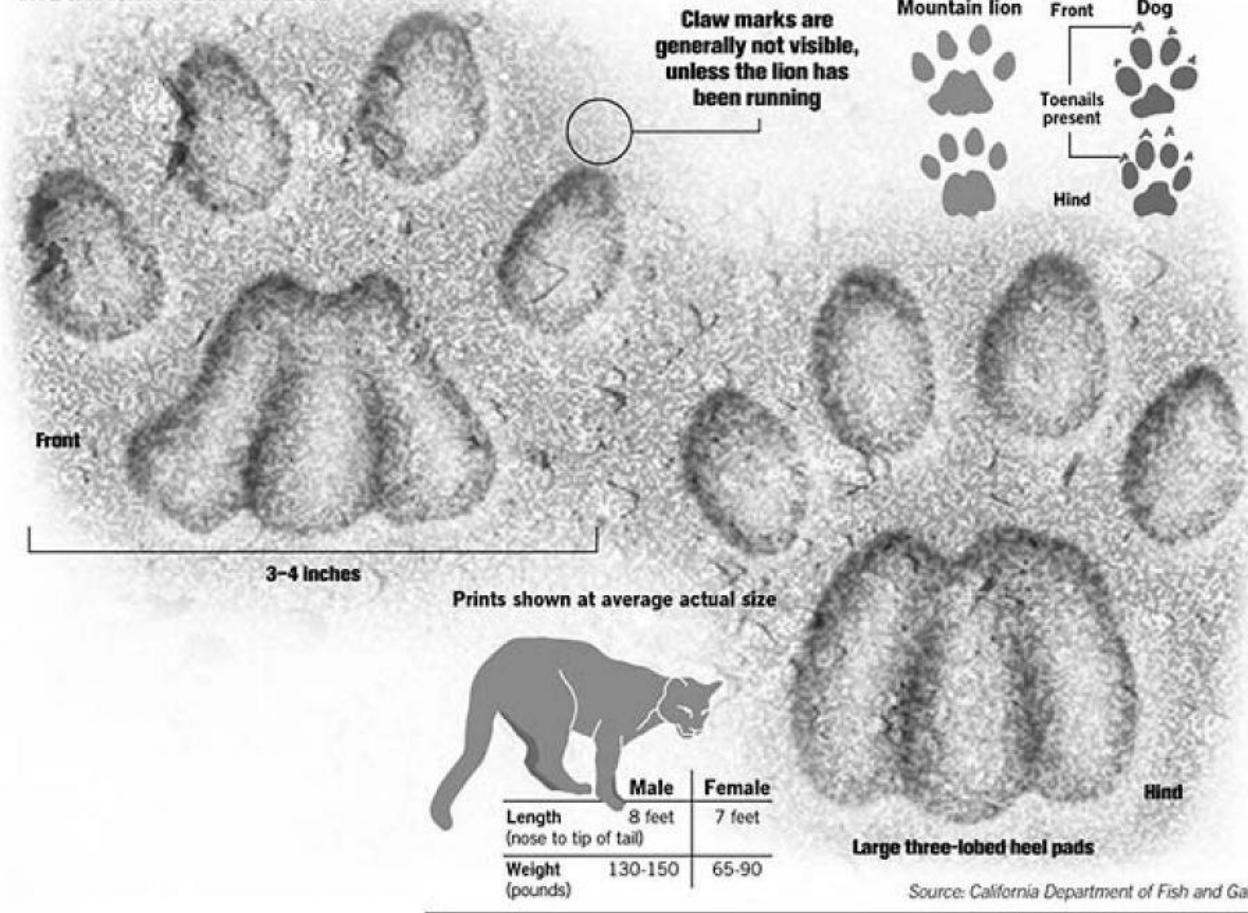
Trail Pattern



Mountain Lion



Mountain lion tracks



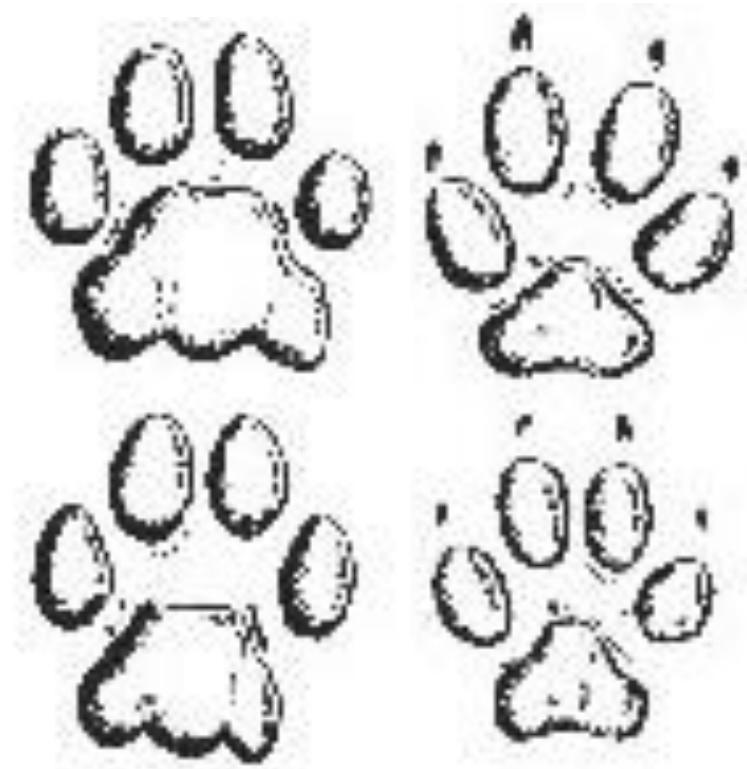
JOHN BLANCHARD / The Chronicle



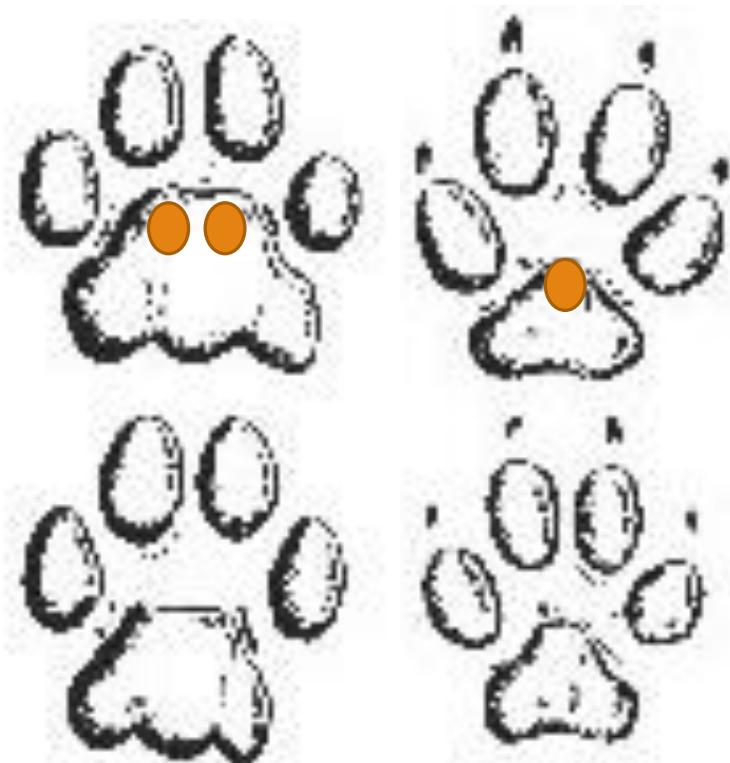
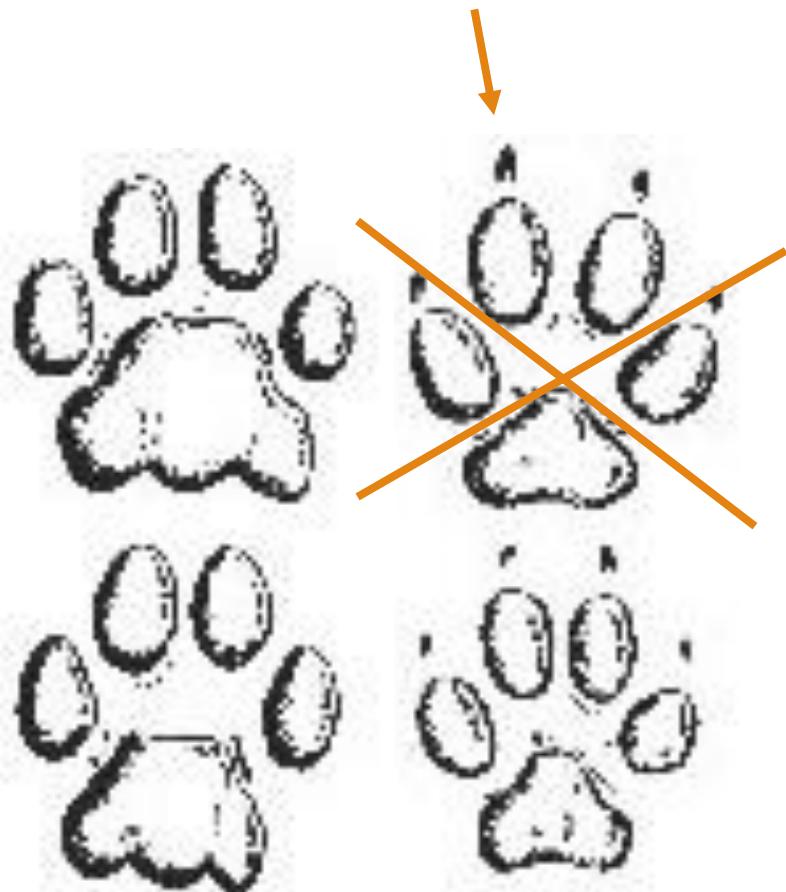
Canid vs. Felid Tracks

- Three key differences:
 - Claw marks in canids
 - “X” through center of canids
 - Single lobe in canids

*These aren't perfect indicators



Canid vs. Felid Tracks



River Otter



—

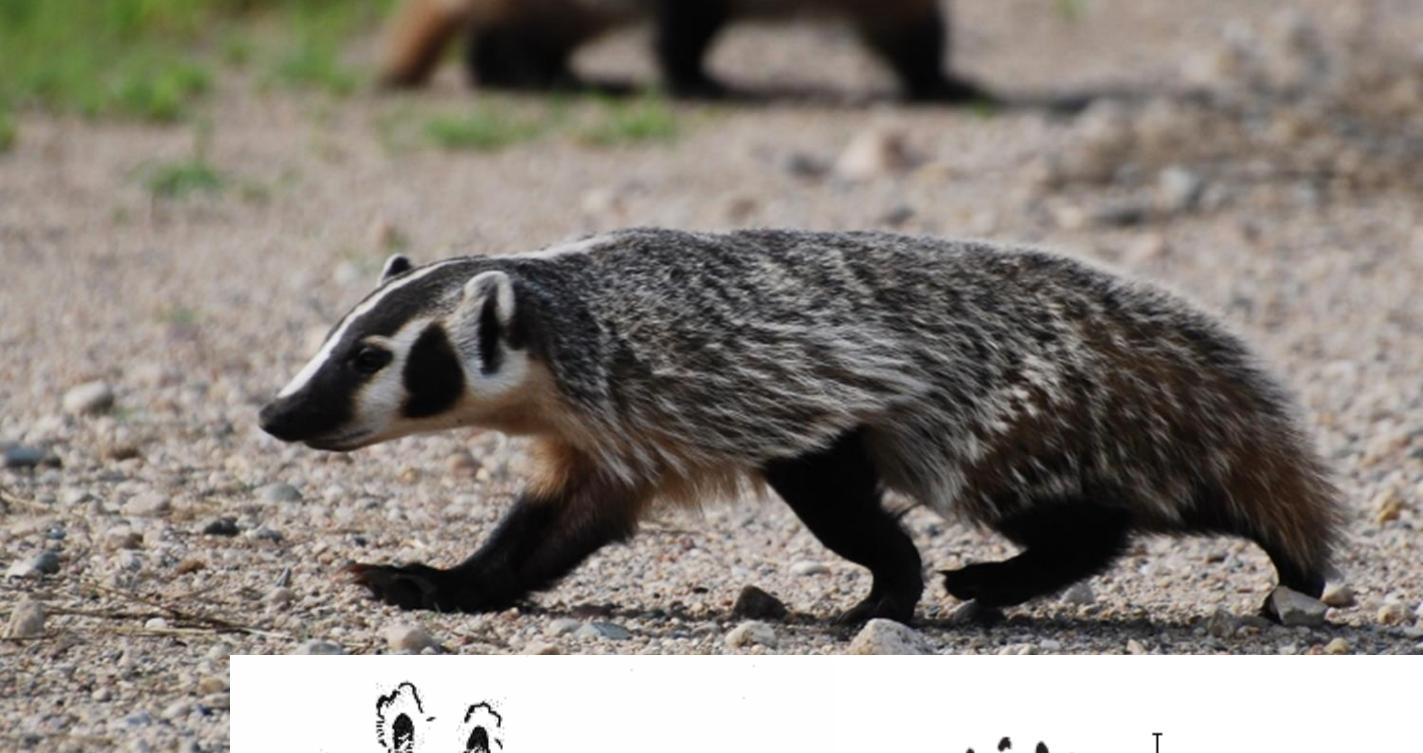


© Terry Kem

Wolverine



Badger



FRONT

HIND



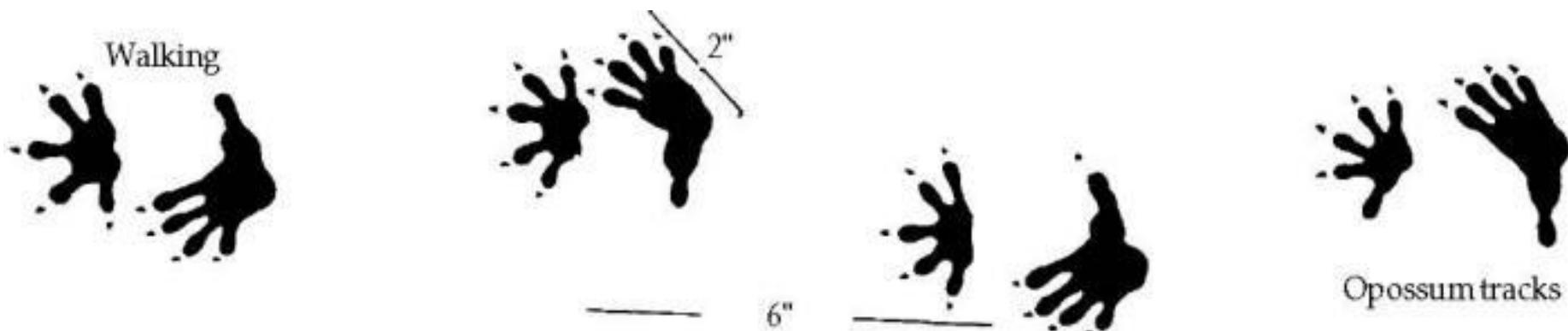
3 in
(8 cm)

Right front

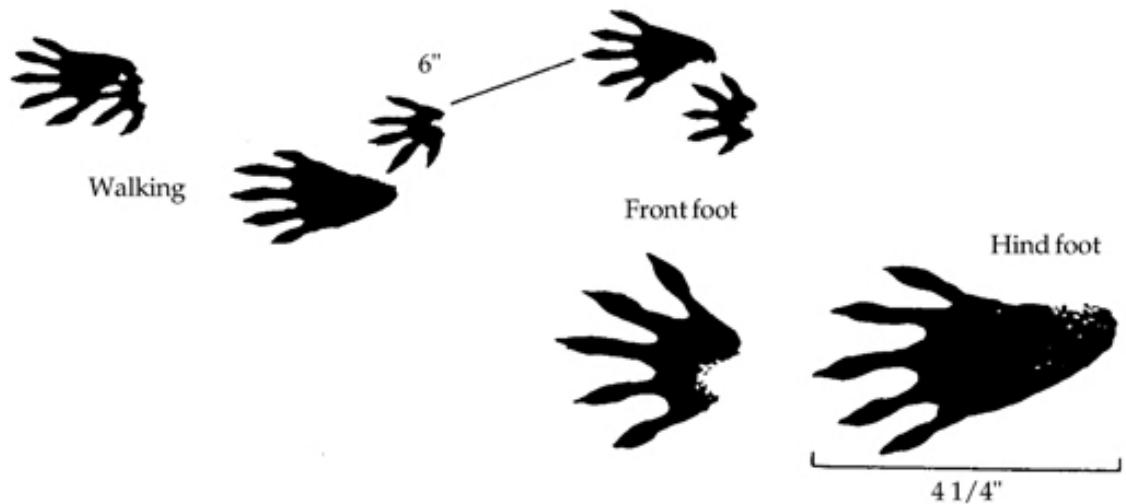


Right hind

Opossum



Raccoon

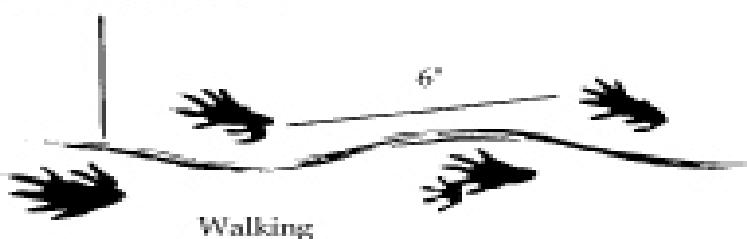


Muskrat



© Dean Shull 1-09

Tail mark sometimes shows



Walking



Front foot

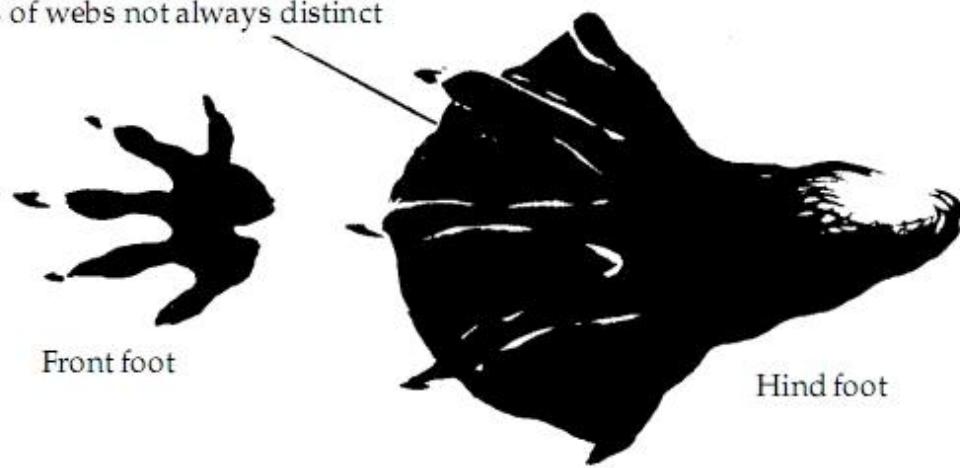


Hind foot

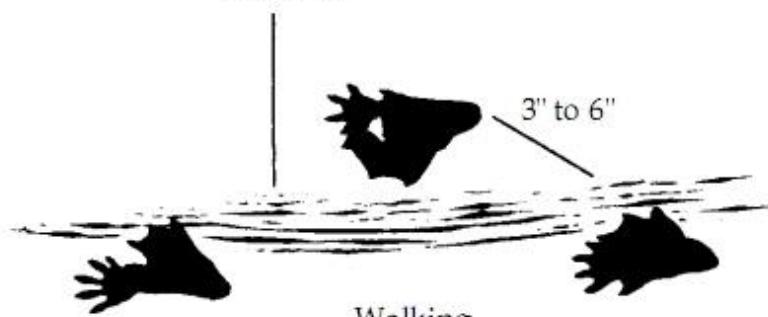
Beaver Tracks



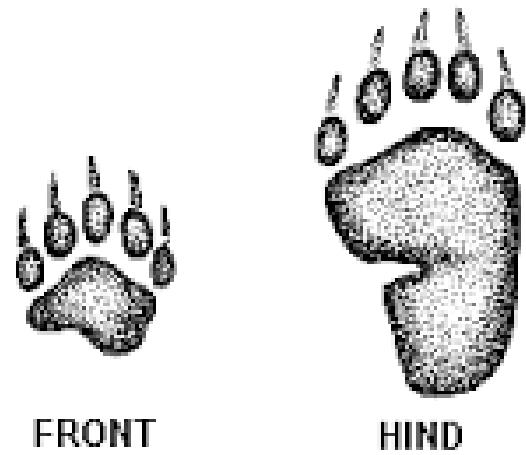
Marks of webs not always distinct



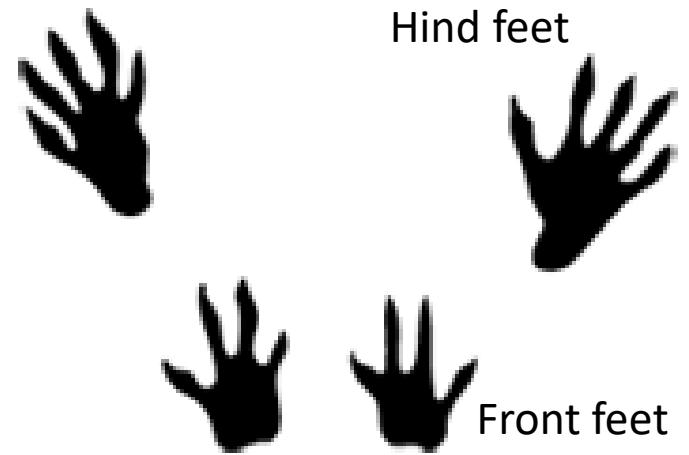
Tail mark



Striped Skunk



Grey Squirrel



Mouse (*Peromyscus spp.*)

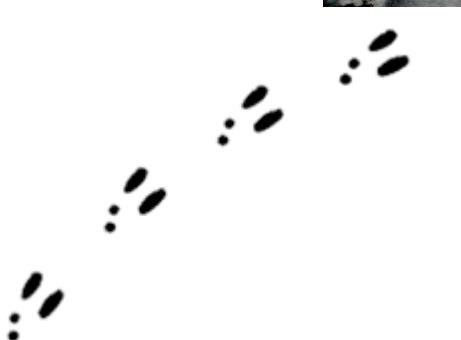


Hind feet



Front feet

Rabbit

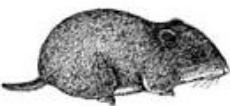


© 2014 Jonah Evans
www.naturetracking.com

Vole



Animal Tracks



Vole

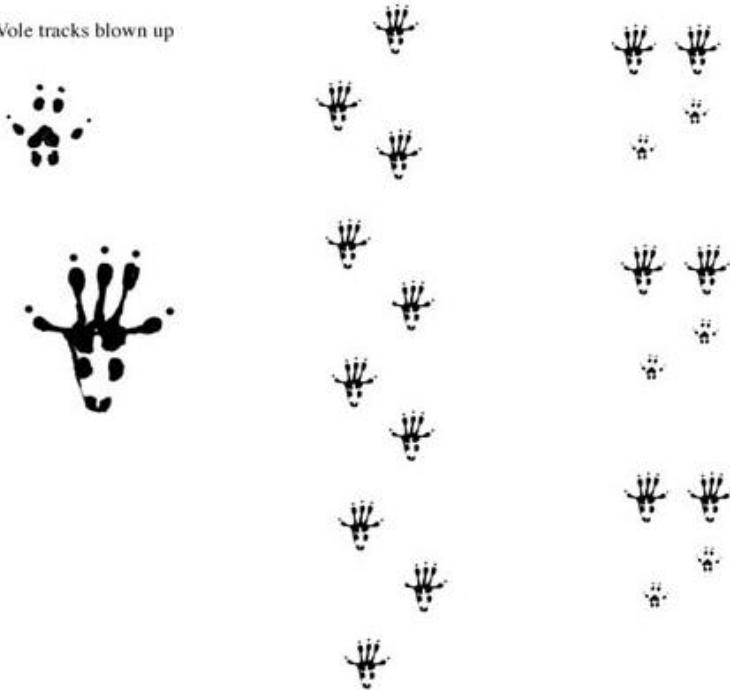
front foot .3x.3"
back foot .4x.3"

Trotting Track Pattern

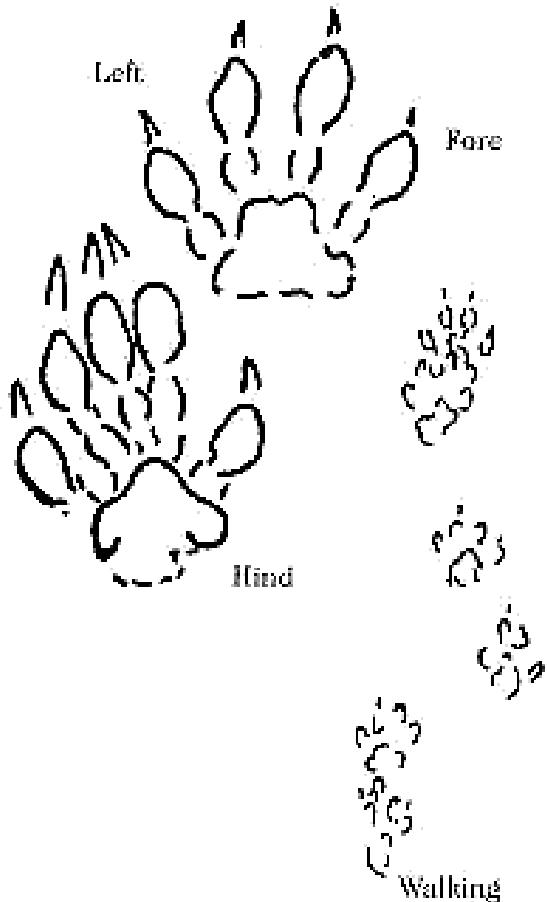
**Actual Sized
Tracks**

Bounding Track Pattern

Vole tracks blown up

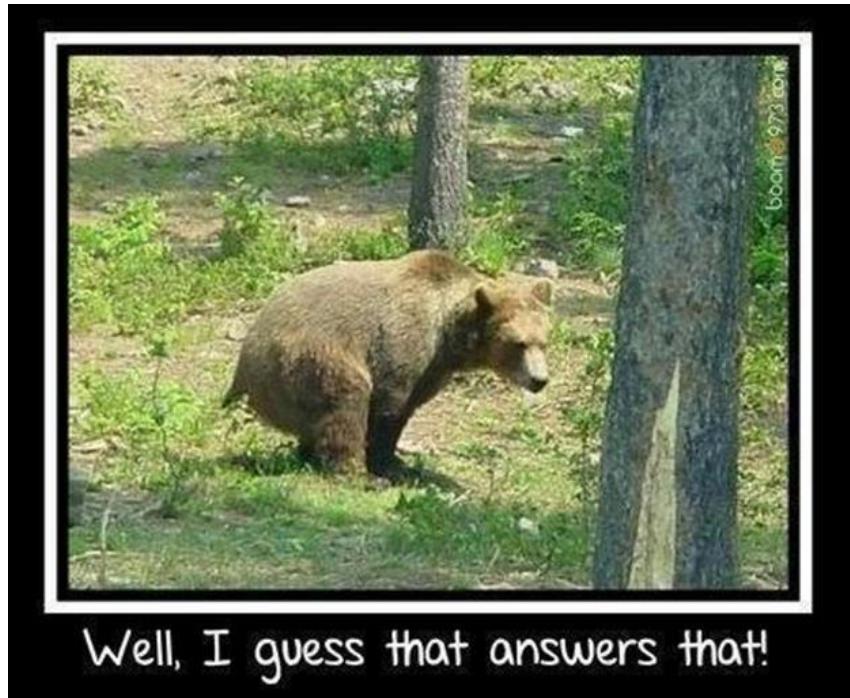


Groundhog





Black Bear scat



Well, I guess that answers that!



Raccoon scat





Porcupine scat



Deer vs. Rabbit Scat

white-tailed deer
(smooth texture, oval shape)



eastern cottontail
(coarse texture, rounded)



Felid vs. Canid

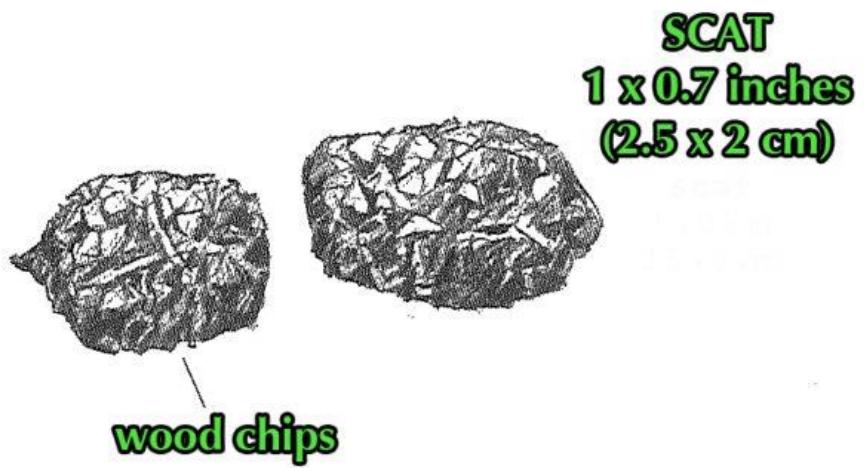


- Hair integrated in felids
- Segmented in felids

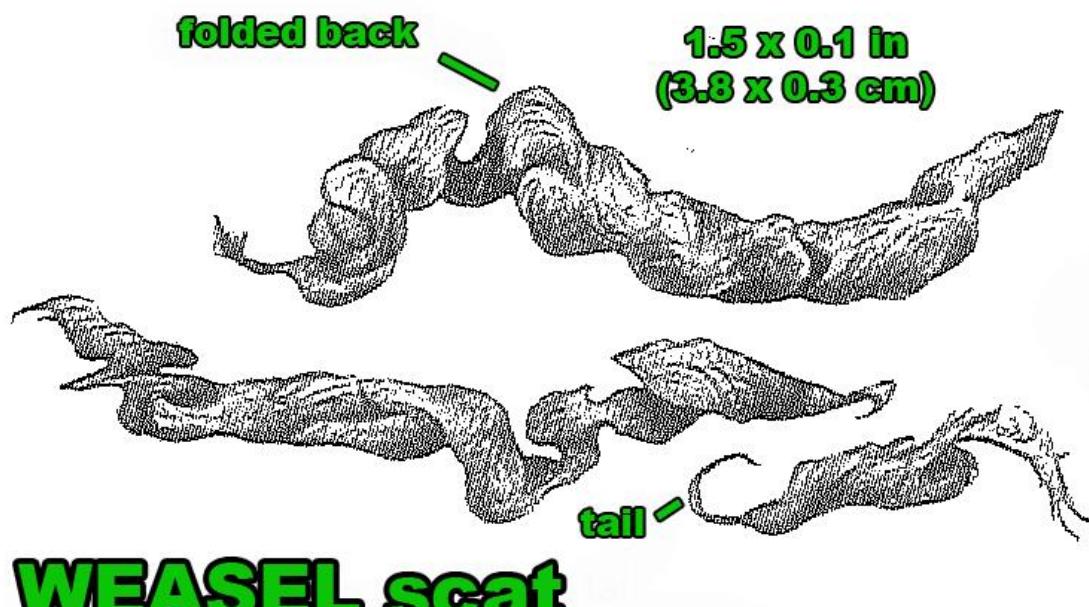
*Not perfect rules

Beaver scat

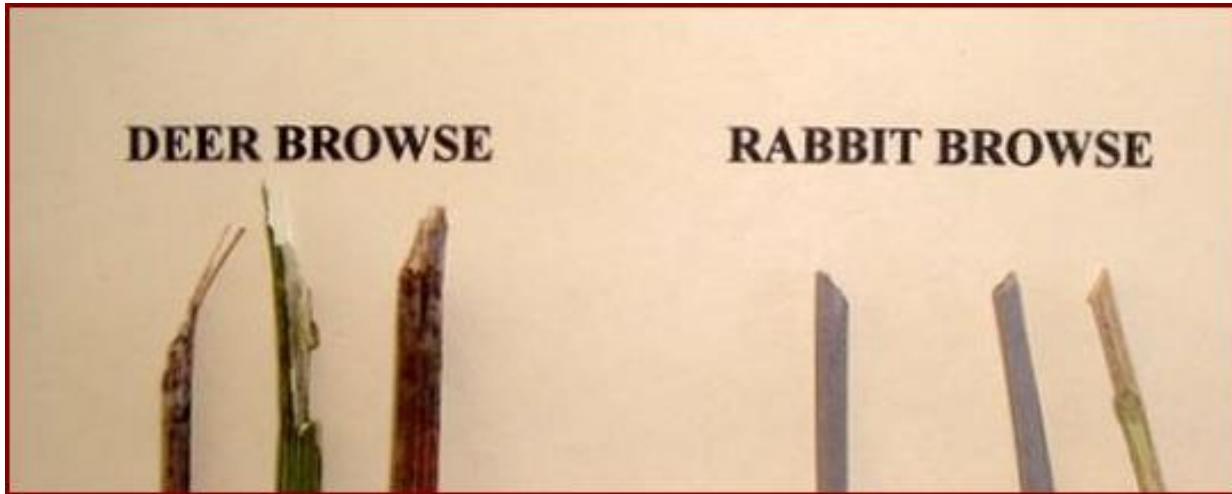
- Beaver scat is often hard to find because it is usually in the water
- It's also soft so it disintegrates quickly on land



Weasel scat



Teethmarks



- Many ungulates don't have upper incisors and rip vegetation
- Rodents typically clip off vegetation pinching between lower and upper incisors

Teethmarks



- Looking at the width and pattern of canine indentations can reveal predator types
- Mountain lions latch on, coyotes bite and tear, bears crunch straight through

Gray Squirrel / Fox Squirrel Drey (leaf nest)



Black Bear dens

- Excavated root systems
- Dense thickets
- Caves
- Tree hollows
- Entrances typically 18-23"



© Sumio Harada/Minden/Solent

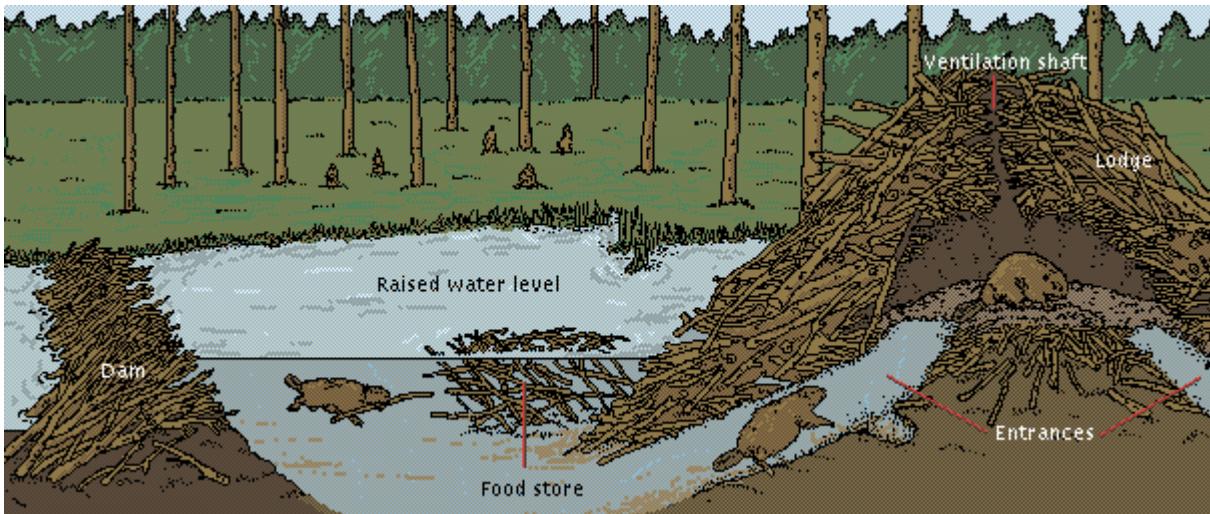
Fox dens

- Main entrance often has conspicuous mound of dirt
- Tracks and scat accumulate at main entrance
- Two entrances are common
- Similar to coyote dens, but smaller



Beaver dams, lodges, and tree cutting

- Made of woody debris and mud
- Typically surrounded by high water level from nearby dam
- Entrances are underwater



Muskrat lodges

- Use soft material (cattails, reeds, other vegetation, and mud) to build lodges
- Typically build in shallow water



White-tailed Deer Bed



Deer Rub on Tree

- May favor trees with soft wood like pine



Feral Pig rooting



Black Bear Marking Tree



Vole Runways

- Same route used again and again
- Tend to form runways under cover
- May look like miniature dirt tracks



Sign to Know:

Tracks

Badger	Pronghorn
Beaver	Raccoon
Black bear	River otter
Cottontail Rabbit	Skunk
Elk	Squirrel
Fox	Vole
Mouse	Whitetail deer
Muskrat	Wolverine

Scat

Beaver
Canid
Deer
Felid
Porcupine
Rabbit
Raccoon
Weasel

Other Sign

Dens (Canid vs Bear)
Lodges (Muskrat vs Beaver)
Feral Pig Rooting
More sign of your choosing

Spring Creek Prairie



- Next week, field trip to Spring Creek Prairie
- Who's coming?
- Please fill out a waiver before leaving class

