



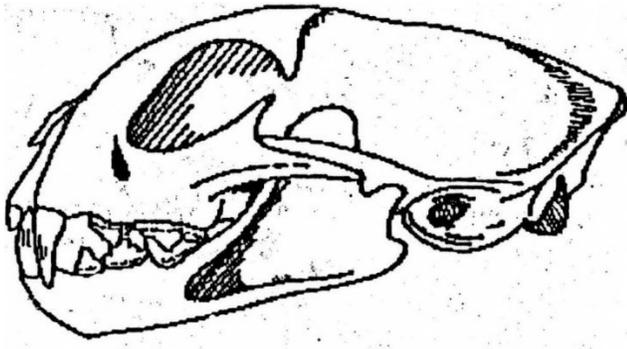
# Wildlife Lesson/Activity

## Mammal ID – skull/fur Reference

### Bobcat

The name "bobcat" originates from its short tail, which is about 5 inches long. While trying to identify one, its tail is a great thing to look for first. The bobcat has a light brown to reddish brown back, the middle being a little darker than the sides. The underside and inside of legs will be white with dark brown spots. Its fur is soft, thick and short. An adult bobcat is about double the size of a house cat and can weigh from 10 to 40 pounds.

A bobcat skull has a short nasal passage, since it doesn't strictly rely on smell. Bobcats are predators so its eyes are forward facing. The eyes are large compared to its smaller sized skull. If you take the top half of the skull off and flip it, you will see that the auditory bullas are enlarged, they have well-developed hearing for hunting prey. Bobcats are carnivores so they have beveled incisors, long cone-like canines and shearing pre-molars.



Dental formula: I C P M

3 1 2 1

3 1 2 1

Length: 14 cm

### Coyote

Coyotes in North Carolina at first glance might look like a red wolf, but they are smaller, have longer, skinnier snouts and their ears are more pointed. Although their fur color can range from blonde, red to black, they usually have a dark gray coloring. Coyotes have a thick, bushy tail with a black tip.

Coyotes rely heavily on scent while hunting, so they have long noses. Their sagittal crest on the top of their head ends at the back of their zygomatic arch. The eyes of the coyote skull will be facing forward to help them in judging distance of their prey. A coyote skull is larger than a fox skull, but they have the same dental formula.



Dental formula: I C P M

3 1 4 2

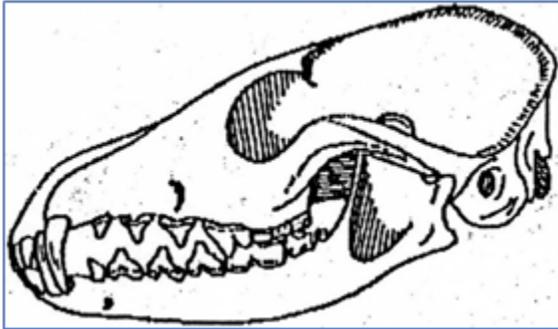
3 1 4 2

Length: 20 cm

## Gray Fox

Gray foxes have a dark gray back, best described as salt and pepper gray with reddish brown sides and a tail that ends in a black tip or streak. Gray foxes have shorter legs than red foxes, making them slightly smaller with a weight ranging from 7 to 15 pounds. When comparing the red fox and gray fox you will notice that the gray fox has shorter fur.

The key characteristic to look for when identifying a gray fox is that on the top of their skull their sagittal crest makes a U shape. Their skull is slightly smaller than a red fox and their nose is shorter.



Dental formula: I C P M

3 1 4 2

3 1 4 2

Length: 14 cm

## Red Fox

The red fox is easily recognized by its bright reddish-orange fur. The belly of the red fox is light gray. The legs of the red fox appear to have black stockings and the tips of the ears are black tipped. Their long bushy tail is red and white tipped. A red fox usually weighs from 8 to 15 pounds.

The most important characteristic to look for when identifying a red fox skull from a gray fox is that a red fox has a sharp V shaped sagittal crest. Their skull is also slightly larger, and they have a longer nasal passage.



Dental formula: I C P M

3 1 4 2

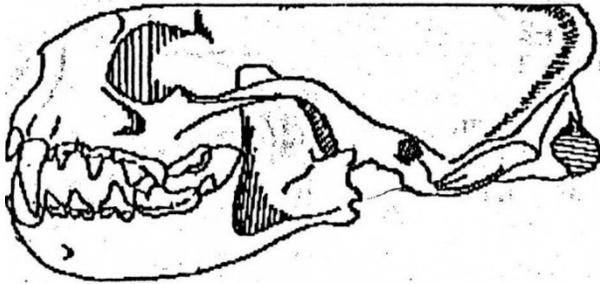
3 1 4 2

Length: 15 cm

## River Otter

River otters have a long body, short legs, thick neck and a long thick tail. They have small eyes and ears and a short face. Their short, dense and waterproof fur is dark brown with lighter brown on their undersides.

The river otter doesn't have a well-developed sense of smell, so they have a short nose. They have a flattened skull with eyes close to top and facing forward, making them well adapted to swimming close to the surface of the water without being seen. Their auditory bulla isn't enlarged, hearing not well developed.



Dental formula: I C P M

Length: 13 cm

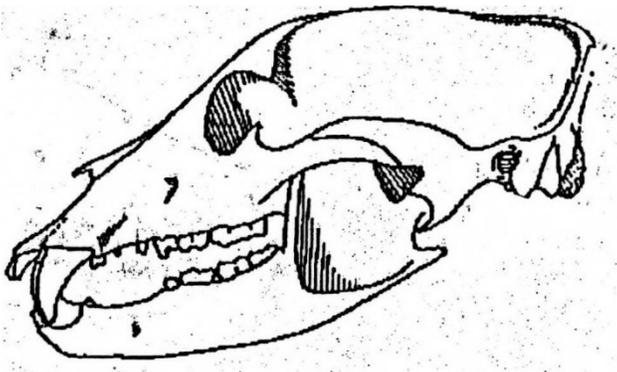
3 1 4 1

3 1 3 2

## Bear

The black bear is the largest mammal in North Carolina. Their fur is usually black with a brown muzzle or snout. Black bears have a very large head.

Black bears are omnivores and opportunistic feeders. Notice their large canines but very small premolars. They have a large nose for their well-developed sense of smell.



Dental formula: I C P M

Length: 26 cm

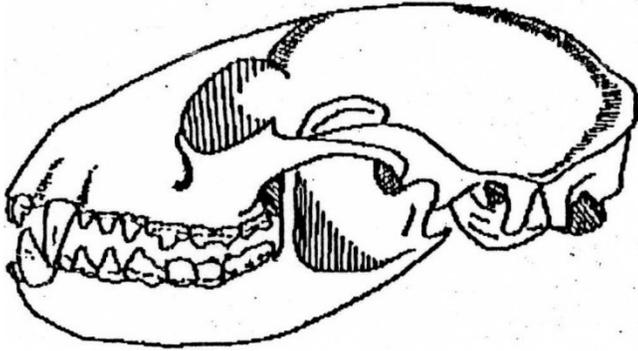
3 1 4 2

3 1 4 3

## Raccoon

A raccoon has a grayish brown fur coat and easily recognized by its black ringed tail and the black "mask" on its face. Their weight ranges from about 8 to 25 pounds.

Adapted to having a more omnivorous diet, raccoon teeth are like canines except their molars aren't shearing and scissor like. While examining their auditory bulla, you will notice that they are enlarged compared to an opossum. A raccoon's nose is shorter and wider compared to a fox skull.



Dental formula: I C P M

3 1 3 2

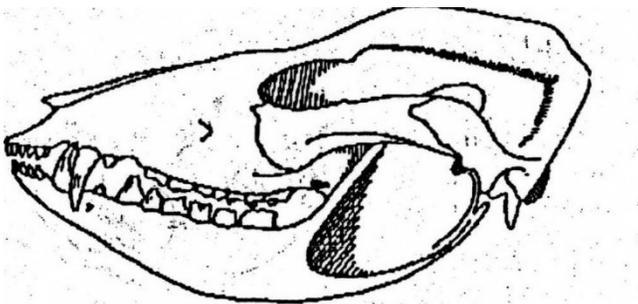
3 1 3 2

Length: 13 cm

## Opossum

The opossum is the only marsupial native to the state of North Carolina. Marsupial babies are born blind and furless and crawl into the adult female's pouch to continue growing and developing until they are ready be carried around on the female's back. Opossums usually have light gray fur that is almost white underneath with black guard hairs, and they are about the size of a house cat. They have a long-pointed head with black hairless ears and nearly hairless tail used to grasp things.

The sagittal crest of an opossum appears to be "mohawk-like." Opossums have a big variety of teeth that allows them to have a large variety of food in their diet. They even eat dead animals, also known as carrion. The opossum has more teeth than any other mammal, a total of 50 to be exact. Since an opossum's diet includes insects, they have high pointed cusps on their back molars.



Dental formula: I C P M

5 1 3 4

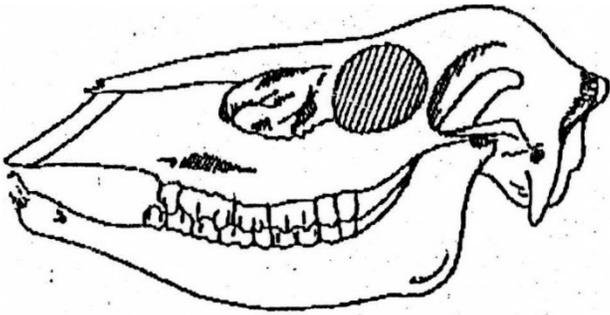
4 1 3 4

Length: 11 cm

## Deer

White-tailed deer have a light brown to tannish coat with a white spot on the neck and underside of tail. Their ears are large and pointy, and they have white, round borders around their eyes and nose. Bucks have antlers that range from small spikes to large racks.

Deer rely strongly on their sense of smell. Their skull shape shows this through its long nose. They also have well developed hearing and eyesight to easily spot movement. When examining their skulls, notice that their eyes are more to the side compared to a carnivore. This allows the deer to see all around it. Deer are also herbivores, seen by their wide incisors and molars for breaking down plants.



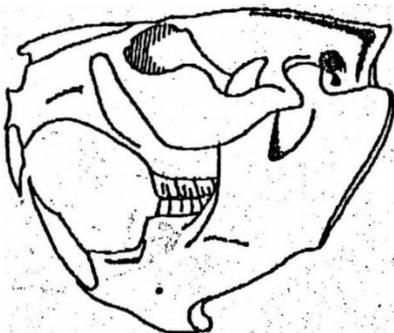
Dental Formula: I C P M

$$\begin{array}{r} \underline{0\ 0\ 3\ 3} \\ 3\ 1\ 3\ 3 \end{array}$$

Length: 29 cm

## Beaver

Beavers are most recognized by their 4 large front teeth used for cutting bark. An adult beaver weighs between 35 to 50 pounds, making them the largest rodent in North America. Their bodies are usually 2-3 feet long with a long flat tail that adds about 10 to 18 inches. Beavers have short legs with webbed back feet to help them swim. Their fur is chestnut brown to blackish. Beaver incisors are curved and usually are stained yellow.



Dental formula: I C P M

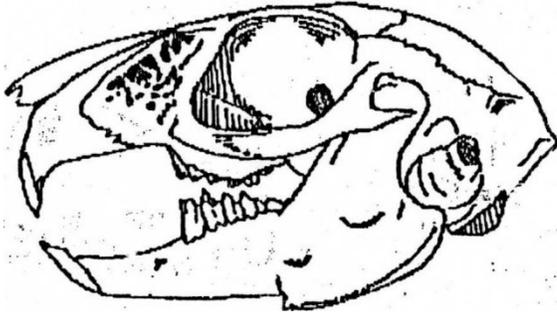
$$\begin{array}{r} \underline{1\ 0\ 2\ 1} \\ 1\ 0\ 1\ 3 \end{array}$$

Length: 12 cm

## Rabbit

The eastern cottontail rabbit has light brown fur with a white underside and white cotton ball like tail. Rabbits only weigh about 2 to 4 pounds. They have large upright ears to hear movement around them

Along with their large ears, rabbits have large auditory bullas in their skull. Rabbits have flat incisors and a lacy appearance on the sides of the nose bone. They also have a 2<sup>nd</sup> set of incisors that are nonfunctional behind the first.



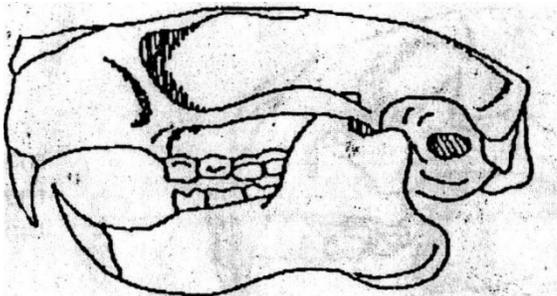
Dental formula: I C P M  
2 0 3 3  
1 0 2 3

Length: 8 cm

## Squirrel

The gray squirrel usually has grayish brown fur, a bushy tail and white underside. An adult weighs between 10 to 25 ounces.

Unlike rabbit skulls, squirrels don't have a lacy look to the side of the nose bone. Squirrels are rodents so their incisors are curved and usually stained yellow.



Dental formula: I C P M  
1 0 3 3  
1 0 2 3

Length: 6 cm