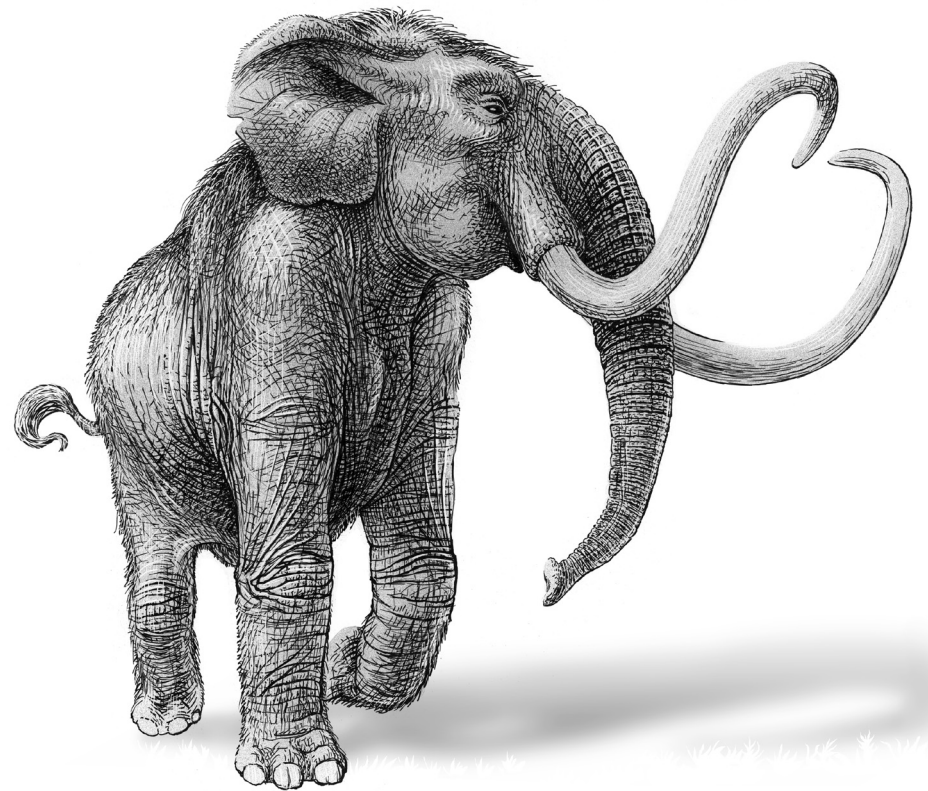


# **TUSKS!**

## Exhibit Guide



## Assembling the Guide

The pages of this guide are meant to be glued or photocopied back to back in the following order:

Page 32/1 (facing down) with Page 2/31 (facing up)

Page 30/3 (facing down) with Page 4/29 (facing up)

Page 28/5 (facing down) with Page 6/27 (facing up)

Page 26/7 (facing down) with Page 8/25 (facing up)

Page 24/9 (facing down) with Page 10/23 (facing up)

Page 22/11 (facing down) with Page 12/21 (facing up)

Page 20/13 (facing down) with Page 14/19 (facing up)

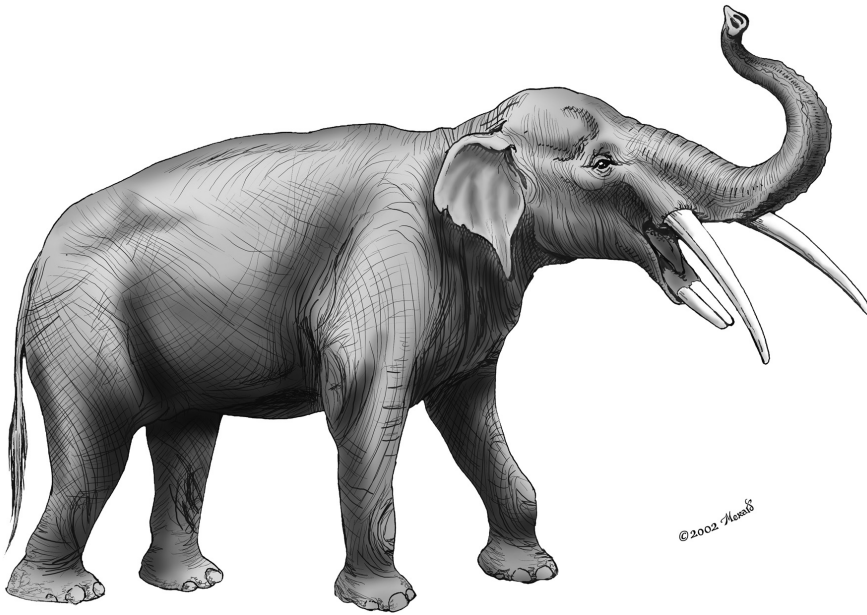
Page 18/15 (facing down) with Page 16/17 (facing up)

Place the "Tusks! Exhibit Guide" cover page face down. Then place page 32/1 on top facing down.

Assemble the rest of the pages in order ending with page 16/17 on top, facing up.

Once this is done fold the guide in half and staple it along the edge.

# Proboscideans



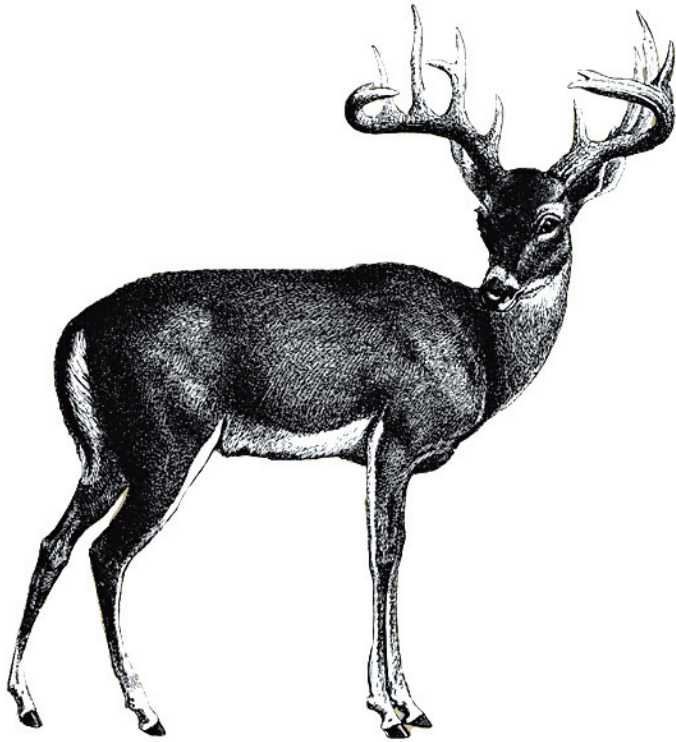
What kind of fossil of the white tailed deer can be found in this exhibit?

How big is it?

## Gomphotherium (GOMF-o-theer)

Status: *Extinct*

Gomphotheres had 2 upper and 2 lower tusks and stood about 10 ft tall. These mammals could be found in ancient woodlands during the early Miocene until the early Pliocene (roughly 24 to 5 million years ago).



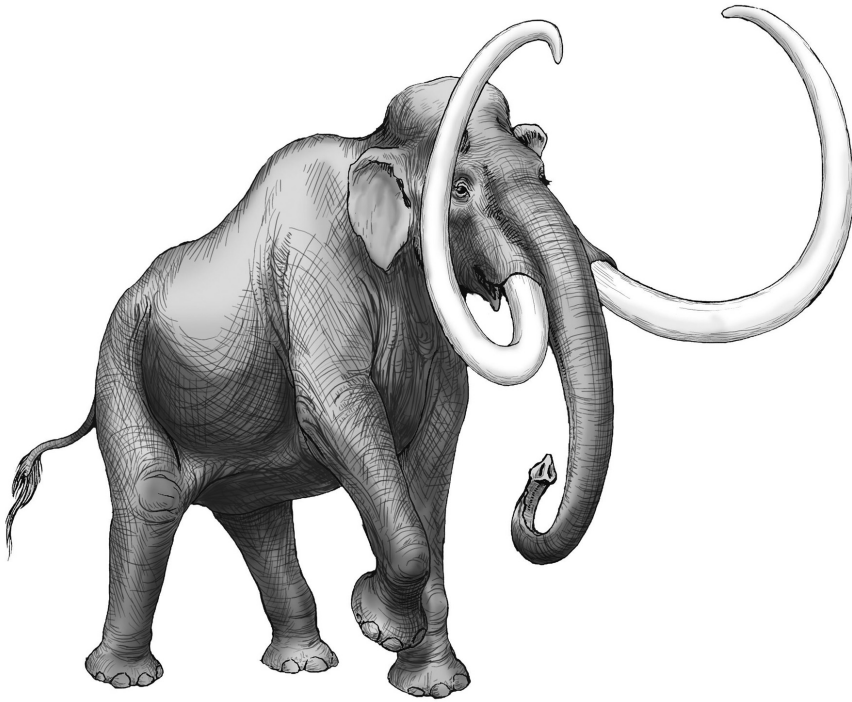
**Were gomphotheres browsers or grazers?**

**What did they eat?**

**White Tailed Deer** (*Odocoileus virginianus*)

**Status:** *Not Extinct*

The white-tailed deer is tan or brown and has white on its throat, around its eyes and nose, on its stomach, and on the underside of its tail. These animals can be found in wooded areas in southern Canada and most of the United States, except for the Southwest, Alaska and Hawaii. White tailed deer are herbivores, plant eaters, and their diet consists of green plants, flower buds, twigs, corn, acorns and other nuts.



**Mammoth (MAM-muth)**

**Status:** *Extinct*

Mammoths were the most closely related proboscideans to living elephants. They had sloping backs, high-domed heads, and a sleek build with long front legs and high shoulders. They also had long upper tusks and no lower tusks. The teeth of these great mammals were flat grinding surfaces to help break down the tough grasses on which they fed. Like mastodons, mammoths survived into the Pleistocene and coexisted with North America's first humans. Though once common throughout North America, they became extinct about 11,000 years ago.

**What kind of fossil of the Striped Skunk can be found in this exhibit?**



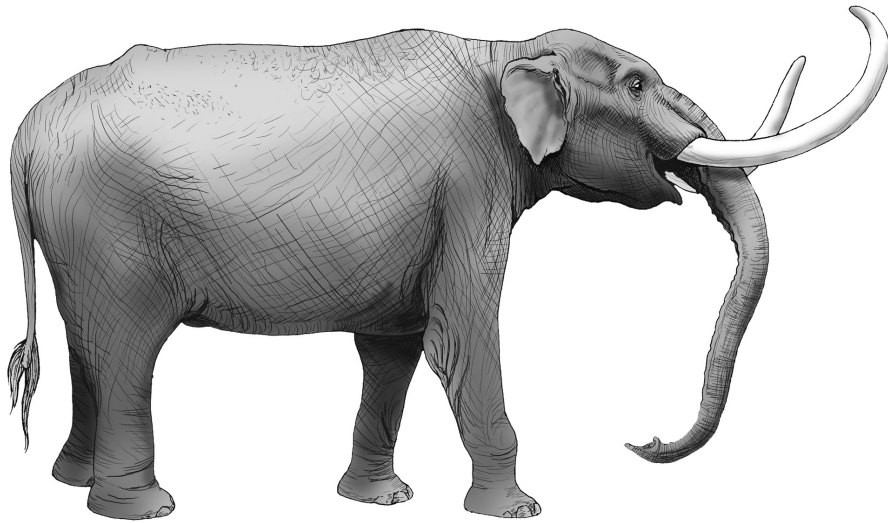
**Describe what a mammoth's tooth looks like.**

**Striped Skunk** (*Mephitis mephitis*)

**Status:** *Not Extinct*

The striped skunk is all black except for a white stripe of fur that begins as a triangular shape on the top of the head, forks into two stripes that travel down the sides of the back, and usually merges again near the base of the tail. Another white stripe runs from the base of the snout between the eyes and ends on the forehead. The striped skunk is an omnivore, plant and animal eater. Its diet consists of insects, small mammals, fish, crustaceans, fruits, grasses, leaves, buds, grains, nuts, and carrion.

Like the gray fox, the striped skunk migrated down from North American and can be found today in wooded or bushy areas ranging from central Canada, throughout the United States, and south into northern Mexico.

**Mastodon (MAST-o-don)**

**Status:** *Extinct*

Mastodons had straight backs, low-domed heads, and a heavy, stocky build with low shoulders and relatively short legs. They had heavy, gently curved upper tusks with little or no lower tusks. Mastodon's teeth were perfectly shaped for eating leaves and twigs from trees and bushes. The American mastodon was common in North America for over a million years before the Ice Age. Having survived into the Pleistocene, American Mastodons coexisted with mammoths and North America's first people and went extinct about 11,000 years ago.

**What is an example of a bear from the Ice Age that is still alive today?**





**Spectacled bear** (*Tremarctos ornatus*)

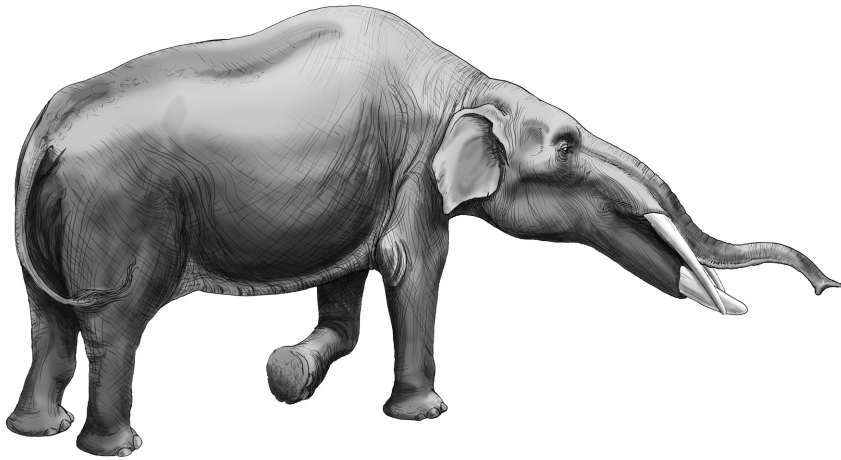
**Status:** *Not Extinct*

Spectacled bears are small, shaggy, and black with yellow rings around the eyes and often a lighter colored, usually cream, nose, throat, and chest. Their diet includes berries, cacti, tree shrubs, honey, and sugarcane. If necessary these bears will eat small rodents, birds, or insects and will kill cattle if other food is not available. The spectacled bear was one of the few bears that survived from the Ice Age into modern times. During the Ice Age it could be found in several areas of North America, today however, this survivor mainly resides along the slopes of the Andes Mountains from Venezuela to Peru.

**Where was the baby Mastodon found in Florida?**

**How did it get there?**





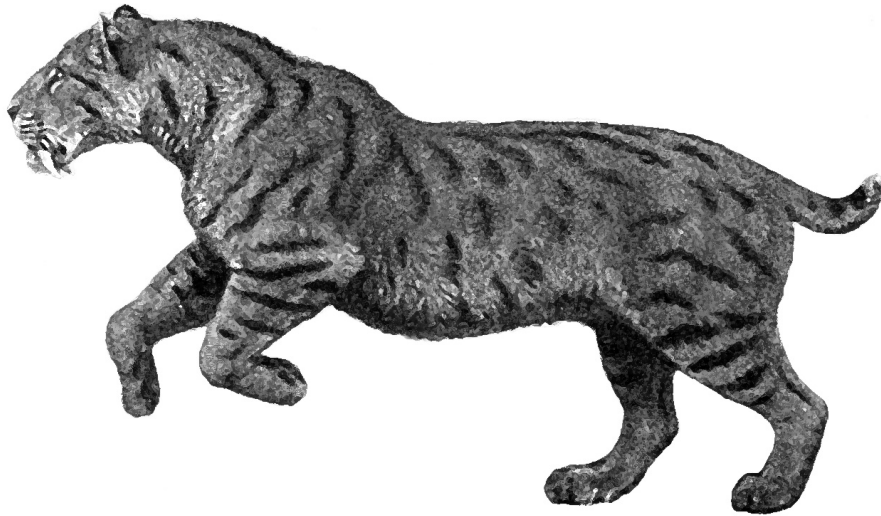
**What kind of fossil of the saber-toothed cat can be found in this exhibit?**

**Shoveltusker** (*Amebelodon britti*)

**Status:** *Extinct*

Shoveltuskers were the largest proboscideans to ever live in North America. Traditionally, paleontologists believed that these beasts actually used their modified tusks to scoop up aquatic plants. However, research by paleontologists suggests that these modified tusks may have been used for many other purposes, such as digging, combat between males, and scraping the bark off trees.

Shoveltuskers entered the continent about 10 million years ago, and disappeared at the end of the Miocene about 4.5 million years ago. The cause for their extinction is not fully known. During this time the natural vegetation in North America changed dramatically, with the spread of prairie grasslands. Primarily leaf-eating browsers, the shoveltuskers probably could not adapt to eating grass.



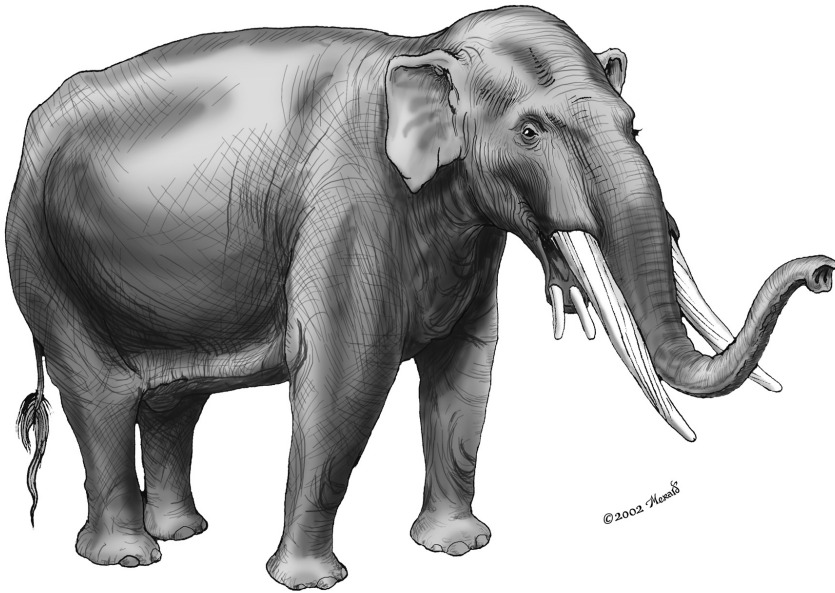
Draw a picture of what a Shoveltusker's bottom tusks looked like. (Hint: there is one somewhere in this exhibit.)

**Saber-tooth Cat** (*Smilodon fatalis*)

**Status:** *Extinct*

The largest saber-toothed cat was about 4-5 feet (1.2-1.5 m) long with a one-foot long skull and 2 huge canine teeth. The saber-toothed cat also had very strong jaw and neck muscles that let *Smilodon* stab prey with its deadly teeth. It had a short, bobbed tail and preyed upon prehistoric horses. *Smilodon* may have even eaten thick-skinned prey like mastodons and bison.

Sketch the fossil:



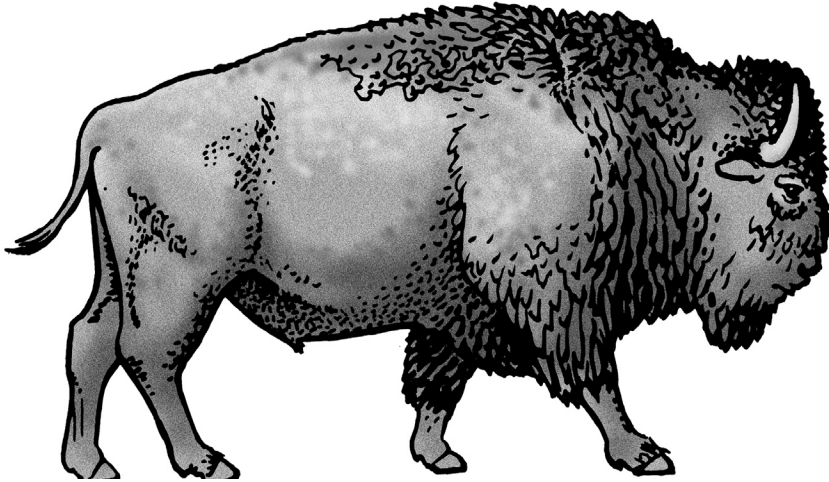
**Spiraltusker (Rhynchothere: RINK-o-theer)**

**Status:** *Extinct*

Spiraltuskers had a spiraling band of enamel around each of its large upper tusks. The lower tusks, however, were small or absent. Scientists believe that these proboscideans primarily fed on grasses.

What fossil from this animal can be found in the exhibit?

How do scientists know that Spiraltuskers ate grasses?



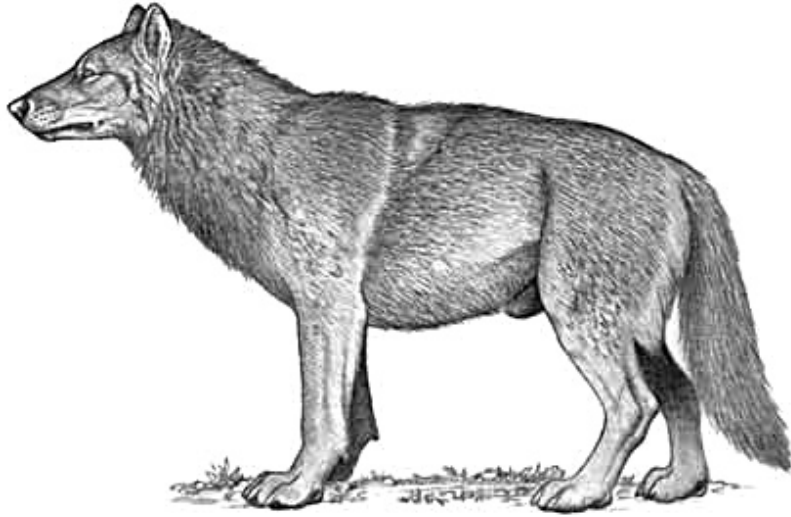
**Long Horn Bison** (*Bison antiquus*)

**Status:** *Extinct*

This species of bison was taller and had longer bones and horns than modern day bison. The horns of the *Bison antiquus* could measure nearly 6 feet from tip to tip.

The American Bison (*Bison bison*) is the largest land animal to occupy North America since the end of the Pleistocene epoch. Although it neared extinction, its modern descendent, *Bison bison*, is making a gradual comeback and remains the largest native species occupying the North American continent.

## Ice Age Neighbors

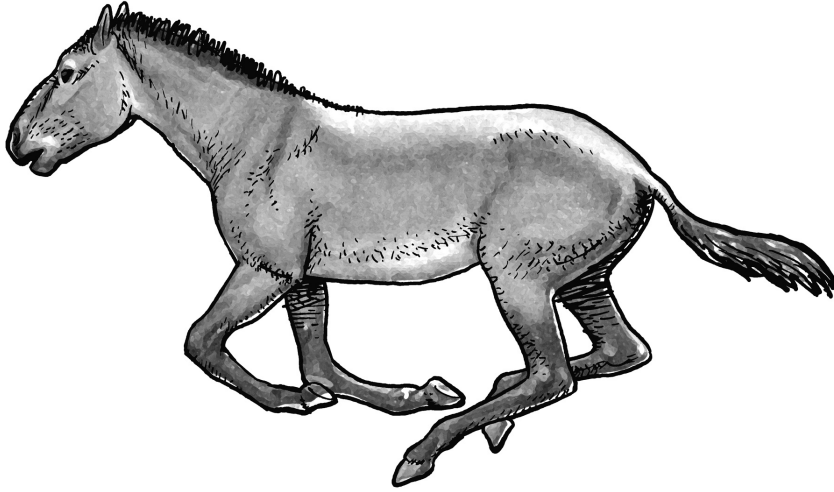


**Dire Wolf** (*Canis dirus*)

**Status:** *Extinct*

Slightly larger than the modern gray wolf, the dire wolf lived throughout North America during the Ice Age. Unlike its relatives the gray wolf and coyote, the dire wolf did not survive, and approximately 11,500 years ago, they disappeared from the planet. Although researchers are unsure, many believe that the dire wolf was a scavenger, feeding on the remains of large herbivores.

Complete the horse bone interactive. How were the skeletons of the Ice Age horse and the mammoth similar? How were they different?

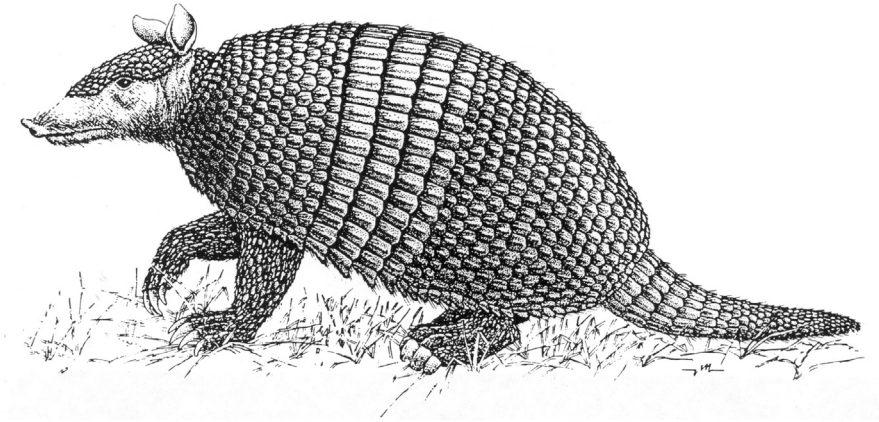


**Ice Age Horse** (*Equus* sp.)

**Status:** *Extinct*

Prehistoric horses were not like horses we know today. They began at roughly the size of a fox and slowly evolved into modern horses. By the Pleistocene epoch, *Equus*, the modern horse, was one of the more widespread types of mammals in North America. Eventually, *Equus* became extinct in the North American continent and horses did not occupy North America until their reintroduction by Spanish explorers in the seventeenth century.

Draw a picture of a dire wolf tooth. How big is it? The size of your thumb? Pinky?



What kind of fossil of the Gray Fox can be found in this exhibit?

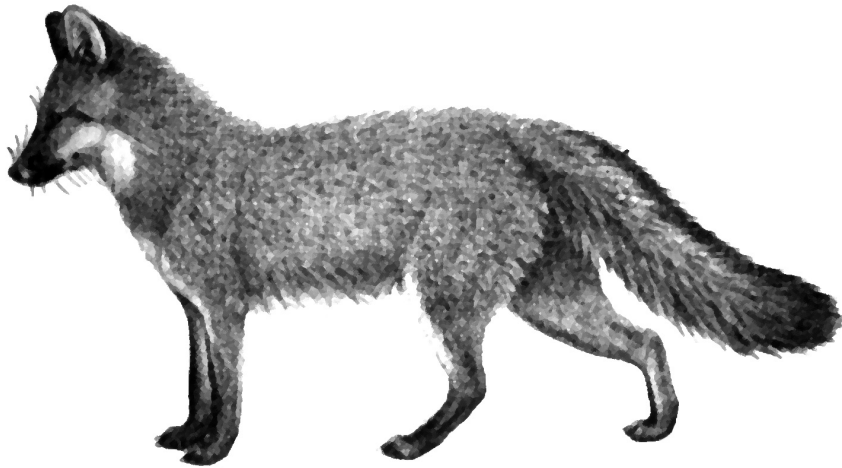
**Giant Armadillo** (*Holmesina septentrionalis*)

**Status:** *Extinct*

The giant armadillo could be more than 6 feet long and weigh as much as 600 pounds. Like modern armadillos, a natural armor of bone helped protect this armadillo from its enemies. The modern descendant of the giant armadillo is the nine-banded armadillo, which lives in the southeastern United States. Unlike modern armadillos the diet of the Giant Armadillo probably consisted of more substantial prey than the termites, ants, and beetles that modern armadillo eat. Many fossils of the giant armadillo have been found in the southeastern United States.



During the Great American Interchange, did the giant armadillo migrate to or from North America?



**Gray Fox** (*Urocyon cinereoargenteus*)

**Status:** *Not Extinct*

Gray Foxes are small animals with a black-tipped, bushy tail. They are omnivores, eating both fruits and insects. During the Great American Interchange of the Ice Age, these animals migrated into South America from areas in North America. Today the gray fox can be still be found throughout most of the southern half of North America but they can also be found in northern Venezuela and Colombia.



**Giant Ground Sloth** (*Megalonyx jeffersoni*)

**Status:** *Extinct*

Giant sloths lived during the Pleistocene epoch in what is now South America and were huge, bulky, slow-moving herbivores, plant eaters. They were about 20 feet (6 m) long and weighed roughly 3-4 tons. Although other species of sloths still exist in South America, they are much smaller than the giant sloth, which went extinct about 11,000 years ago.

How big is the fossil claw found in the exhibit compared to your hand? Is it bigger? Smaller?

Draw a life-size picture.