

Mammals of the Mississippi



National Mississippi River Museum and Aquarium Conservation Education Curriculum

Target Grades: 4th – 6th

Key Words: Mammal, mammary glands,
guard hairs, fur,

Subject Areas: Science

Duration: 45 minute

Time can be extended by request

Title: *Mammals of the Mississippi*

Program presented on site at Museum or as an Outreach

Summary:

What has fur (or hair), and has the ability to produce milk? If you guessed a mammal, then you're right! But wait. There's more! Mammals come in all shapes, colors and sizes and are very interesting creatures. This program will teach you the ins and outs of Mississippi River mammal identification and some interesting facts for you to share about these fascinating animals.

Objectives:

Students will be able to...

1. List what makes a mammal a mammal
2. Determine what an animal eats based on their tooth structure and skull
3. Learn about the history and conservation of Mississippi River Mammals

Group Size:

30-60 students

Background for Educators:

Mammals of the Mississippi River Valley have greatly changed over the years and through many climate changes. During the Ice Age could be found mammals that were called Woolly Mammoths that were grazers of grass, Mastodons that were browsers on trees, Giant Ground Sloths that dug for large roots, Saber Tooth Cats that were carnivores, and large bears and wolves that also ate other animals. Some of the Ice Age beaver were very large, and there were even Musk Ox, Camels, and horses found wild along the Mississippi River.

With the arrival of a hunting predator about 10,000 years ago, known as humans, many of these animal species were perhaps over-hunted or become extinct due to other factors. The changes in the animal life along the Mississippi River watershed was not only from hunting but from climate change and perhaps people using fire to burn off the vegetation, and therefore favoring some plant species over others.

Later, when some of the first European explorers arrived they saw many animals that no longer exist along the Mississippi such as bison, elk, bears, and wolves. There are still many species of mammals occurring along the Mississippi River, but the largest is the White-tailed Deer, and some Moose and bears in northern Minnesota.

Materials Needed:

- Fur case
- Skull case
- Bison hide and skull (docent lounge closet and top of lockers)
- Elk antler (Wetlab cabinet top)

Procedure:

Set up the bison hide located in a tub in the Docent closet, and also put the bison skull on top of the hide. A table set up ahead of time in the presentation space helps for spreading out the hide and skull. An elk antler can be used from on top of the Wetlab cabinets, and also placed on top of the bison hide. The mounted beaver can be moved by a wheeled cart to the presentation area and placed on top of the bison hide table.

The museum & aquarium fur case and skull box will also be needed for this presentation.

The educator should give an educational program on mammals, talking about the mammals unique features from other animals, vision, smell, three types of hair - vibrissae (whiskers), guard hairs, and fur. The differences between horn and antler should be discussed.

Diets of various animals can be discussed as each animal is being talked about. It is good to start with the pelt and then begin passing it around the room. Terms such as herbivore, carnivore, and omnivore should be used and interpreted. Various skulls can be used to illustrate the diet, tooth structure, musculature, and special adaptations of the animal.

Pelt coloration and lack of color vision should be discussed, along with importance of smell, territorial markings, habitats, and various mammal characteristics.

Evaluation:

Mammal identifying quiz or oral discussions.

Additional resources:

- Mammal identification guides
- Mammal tracks
- Props such as beaver sticks

Extensions:

Related programs available at the National Mississippi River Museum & Aquarium:

Rockin' Reptiles and Awesome Amphibians

Mississippi River Night Life

Mississippi River Life

On the Right Track

A smell activity found in the “*On the Right Track*” program

Credits:

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