Starting Point: Buffalo Point Parking Lot

## Objectives:

- 1. Provide an overview of the hike
- 2. Discuss what an ecosystem is
- 3. Discuss what type of ecosystem Antelope Island is

# **Introduction** (gather the group by the trailhead)

Today we are going to talk about what an ecosystem is - what makes an ecosystem a system. We'll discuss some of the characteristics of the high desert ecosystem of Antelope Island and learn about some of the animals and plants that can be found here.

## What is an Ecosystem?

A system that includes all living organisms (biotic factors) in an area as well as its physical

environment (abiotic factors) functioning together as a unit. In other words an ecosystem is made of rocks, plant, animals, soil, water, microorganisms, and the local atmosphere or weather conditions interacting with one another.

## What Kind of Ecosystem is Antelope Island?

Antelope Island is considered to be a Cold Sage Steppe Desert.

(Ask the students what they think a desert is - ie. tall cactus, miles of sand and very hot temperatures. Explain that not all deserts are the same. Some have cold temperatures, smaller

plants and are covered by dirt. Some have have very hot temperatures, have tall cactus plant and miles of sand.)

The name "sage steppe" comes from sagebrush, which is the most abundant plant species in this ecosystem and "steppe: is a word that describes a large dry level grassland having few or no trees. (Ask the students to look around and you can point out the grassland down below and also sagebrush at the beginning of the trailhead - reference pictures in binder.

At this time ask the students to be thinking about what the largest animal on the island is and what it eats. Ask them to hold their answers until the next stop where you will give them the opportunity to answer.)

1st Stop - Reference Picture

### Objectives:

- 1. What is a bison and what is a buffalo
- 2. Bison fun facts weight, babies, and how fast they can run
- 3. What do they eat

Gather kids around the bench at the first stop. (Reference picture)

What is the largest animal on Antelope Island? (Allow students to answer. You may have answers such as buffalo, bison, deer, etc...)

The largest animal on Antelope Island is a bison. The largest animal here on Antelope Island and across the United States are bison not buffalo. Bison live in North America. Water buffalo can be found in Europe, Asia, Australia, and South America. The Cape Buffalo can be found in Africa. (Show pictures of bison and buffalo that are in your binder - ask students what differences they can see between buffalo and bison ie. bison hair is thick and shaggy) (Ask your students how much they think a bison weighs, approximately how tall bison are, what bison eat, and how fast bison can run.)

#### Weight:

- 1. Calf between 40 and 50 pounds at birth
- 2. Mature bull bison averages around 2,000 pounds
- 3. Mature cow bison averages around 900 1,100 pounds

Height: At the shoulders a bison is approximately 5 to 6 feet tall

Color: Bison calves - at birth the babies are red and stay that color until they are about 4 months old at which time their color is a brown/black mixture.

Speed: Bison can run up to 40 mph!

What do bison eat? (Allow the students to have an exchange with you regarding the bison's diet.)

Diet: Bison are herbivores, they eat mainly grass and sedges. (Ask the students to think about what the fastest animal on Antelope Island is. Let them know you will listen to their answers at the next stop.)

## 2nd Stop - Reference Picture

### Objectives:

- 1. What is a Pronghorn and what is an Antelope
- 2. Pronghorn fun facts how fast can they run, how far can they see and what are their horns made of
- 3. What is an antler made of and what is a bison horn made of? What is a pronghorn horn made of

Gather kids around the bench at the second stop

What is the fastest land animal on Antelope Island? (Allow the students to answer. You may have answers such as antelope, bison, coyote, etc...)

The fastest land animal on Antelope Island is a Pronghorn not an Antelope. In fact it is the fastest land animal in the United States. Pronghorn live in North America. Antelope can be found in parts of Europe, Aisa, and Africa. The Gemsbok is an antelope found in Southern Africa. (reference pictures of pronghorn and the Gemsbok Antelope in your binder.)

Speed: Pronghorns can run up to 70 mph! (Compare this to a Cheetah)

Weight: Male Pronghorn: average 110 pounds - Female Pronghorn: average 75 pounds

Horn of the pronghorn: The horn sheath of the pronghorn is different from either the antlers of deer or the true horns of cattle or Bison. Antlers are shed annually and are made of bone. True horns are never shed and are made of compressed hair (keratin) growing on a bony core. The horn sheath of a pronghorn is a little of both. It is made of keratin growing on a bony core AND it sheds annually. In addition, the horn sheath is branched, true horns are always unbranched. (Reference photos of bison horn, pronghorn horn and deer antler.)

Vision: They have nearly 300 degree vision because of their large protruding eyes, their eyes are also about the same size as an elephants! Their eyes also help them to live in grasslands because they can see predators from long distances.

Diet: Pronghorns eat a variety of plants, mostly forbes (flowering plants) and shrubs. Sagebrush often makes up a large part of their diet, they are dainty feeders, plucking only the tender green shoots.

(Ask students to think about what predators may be found on Antelope Island and them them know you will listen to their answers at the next stop.)

## 3rd and Final Stop - Reference the Picture

### Objectives:

- 1. What predators can be found on Antelope Island
- 2. What is a coyote and what does it eat
- 3. What is a bobcat and what does it eat
- 4. What is badger and what does it eat

Gather the kids onto the "Rock Amphitheater"

Name a predator that you may find on Antelope Island (Allow students to answer. You may have answers such as wolves, coyotes, mountain lions etc...)

The animals listed below are some of the predators that can be found on Antelope Island

Coyote: (Bring out the picture of a coyote and also the picture that compare the size of the coyote to a wolf and a fox.)

Weight: 20-50 pounds (discuss the difference in size between the wolf, coyote, and fox.)

Diet: Coyotes are omnivores, they eat other animals or plants. Coyotes are not picky eaters, they eat small animals such as rodents ie. mice, rabbits, and small birds. And larger animals like deer. They are typically thought to be only eat eaters, but they eat meat and vegetation. When they aren't snacking on bigger prey they will eat snakes, insects, and grass.

Bobcat: (Bring out the picture of the bobcat from your binder)

Weight: 11-30 pounds

Diet: Bobcats are carnivores, they eat other animals. They are fierce hunters and can kill prey much bigger than themselves, but usually they eat rabbits, birds, mice, squirrels, and other smaller game. The bobcat hunts by stealth and can pounce on their prey from 10 feet away. Bobcats are the type

of cat on the island, no mountain lions live here.

American Badger: (Bring out the picture of a badger from your binder)

Weight: 15-20 pounds

Diet: Badgers are carnivores, they eat other animals. The American Badger is a fossorial meaning it digs for its food. It preys predominantly on mice, snakes, ground-nesting birds (burrowing owl), lizards, and insects.

Note: Bison have no natural predators on Antelope Island