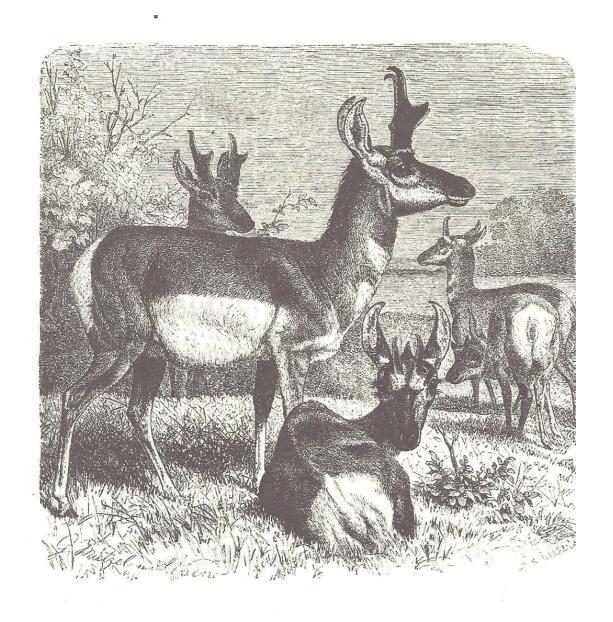
# Antelope Island State Park



Junior Ranger Activity Guide

# So You Want to Be a Junior Ranger?

To become an Antelope Island State Park Junior Ranger, complete the following steps.

Step One:
□ <u>Attend a ranger program.</u>
Name of program I attended:
One thing I learned:
Ranger Signature:
OR
□ <u>Watch the Visitor Center video</u> .
One thing I learned from the video:
Step Two:
□ For ages <b>4–6, complete at least 3 activities.</b>
□ For ages <b>7–9, complete at least 5 activities.</b>
□ For ages 10 and up, complete at least 8 activities.
Step Three:
□ <u>Return your booklet</u> to the Visitor Center or Ranch for review and recite the Junior Ranger Pledge.

### **DID YOU KNOW?**

Pronghorn can sprint at 70 miles per hour, making them the second fastest land animal!

# Naming an Island

Ever wonder why we call this place Antelope Island? It was named by a famous explorer in 1845.

Use the words at the bottom to fill in the blanks and learn how Antelope Island got its name.

John C. Fremont was a great	When he came to Great Salt
Lake, the Native Americans told hi	m he could ride his out into
the lake and reach a great island. F	remont and his guide Kit
rode across the shallows to the islan	nd. On the island, they saw lots of
, which they believed	were antelope. (Pronghorn are not
really antelope at all! They are mor	e closely related to an ancient
like animal.) Fremont's men dran	nk from the freshwater springs. They
one of the pronghorn to bring	g it back for food.
On his way back across the	, Fremont was stopped by an
angry Native American who said th	at the belonged to him.
Fremont did not want the man to be	e angry, so he gave him some cloth,
tobacco, and a to make up to	for killing the pronghorn. He also
promised to name the aft	er the "antelope" as a tribute.

knife - shot - deer - island - explorer - antelope Carson - horse - pronghorn - shallows - animal

# Trail Journal

Record Your Antelope Island Adventures!
Today's Date:/
The name of the trail or route I am taking:
The length of the trail or route:
The weather:
The best thing I did today:
Something I learned today:
The most UNUSUAL thing I saw today:
$\hfill \square$ Happy $\hfill \square$ Excited $\hfill \square$ Thirsty $\hfill \square$ Grumpy $\hfill \square$ Tired $\hfill \square$ Silly $\hfill \square$ Hungry $\hfill \square$ Strong
<ul> <li>□ Always carry water and snacks.</li> <li>□ Always hike with a buddy or family member. Carry a map!</li> <li>□ Stay on marked trails and do not approach wildlife.</li> <li>□ Be kind to other visitors.</li> </ul>
☐ Leave what you find where it is. Take

pictures instead!

Look up, look down, look ALL around!



# Junior Ranger Quests

Antelope Island State Park is full of unique areas for you to explore! Choose one of the places listed below to visit. Answer the questions about that location. You only need to visit one to complete the quest, but feel free to venture out to all three!

- 1. **Buffalo Point.** Enjoy the view from the top of a very large hill. Find a good spot and explore using your senses.
- 2. Visitor Center Trail. Learn about the amazing rocks found on the island.
- 3. **Beach.** Get an up-close look at the critters that call Great Salt Lake home.

### JUNIOR RANGER QUEST:

### **Buffalo Point**

Discover Your Senses

Use your five senses to explore your environment. Look, listen, smell, touch, and taste the area around you. Hike up the hill and find a good place to explore.

What colors do you see? Where did you find them?		
The air smells		
The weather feels		
Sit quietly. What do you hear?		

### **JUNIOR RANGER QUEST:**

### The Beach

Discover Lake Life

The beach is a great place to get right up to the water of Great Salt Lake. The lake may be too salty for fish, but many other living things do well in the salty habitat! Brine shrimp, algae, brine flies and their larvae all love the salty water. Brine shrimp and brine flies are a very important food source for birds.

DIP your finger in the lake. What does it feel like?
TASTE your finger. What does it taste like?
SCOOP up a handful of water. Look closely at your sample. What do you see?

# JUNIOR RANGER QUEST: Visitor Center Trail

Antelope Island Rocks

Geologists study rocks to learn how the earth formed and how it has changed over time.

### DID YOU KNOW?

The green crusty stuff you see on the rocks is alive! It's called **lichen**, and it helps scientists tell if an environment is healthy.

Use the trail behind the visitor center to explore the island's rocks. Choose a rock and see if you can identify it!

**Tufa** – A white sedimentary rock made of calcium from the lake. It looks a lot like cement covering other rocks.

**Tintic Quartzite** – This rock looks like it is made from a bunch of sand or gravel pressed together. It is a metamorphic rock, made from heat and pressure deep underground.

**Banded Gneiss** – This rock has swirling stripes of white, pink, and grey and is one of the oldest rocks in the West (almost 2 billion years old). It is also a metamorphic rock, and has been changed by heat and pressure deep underground.

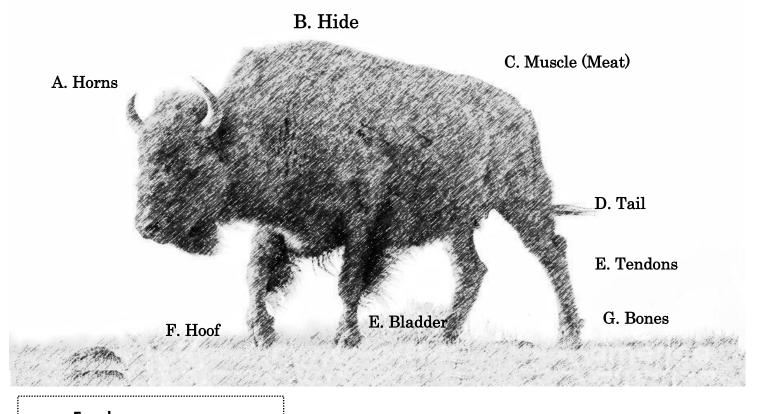
Describe your rock:	
Can you identify your rock as one of those listed above?	

# Bison Roundup!

In many Native American myths, bison gave themselves up willingly as a food source for humans, so they have a special position of honor and respect. Every part of the animal was used!

One bison could feed and provide clothing and materials for an entire family.

Match each part of the bison listed below with its historical use to find out more about the American Bison.



# \_\_\_\_ Food \_\_\_\_ Spoon, Ladle, Cup \_\_\_\_ Clothing \_\_\_\_ Water container \_\_\_ Glue \_\_\_ Fly Swatter \_\_\_ Sewing Sinew, Bowstring

### DID YOU KNOW?

The American Bison is only found in North America. Its official scientific name is *Bison bison*.

BE SAFE! Never approach a bison! They charge if annoyed and can run up to 40 miles per hour!

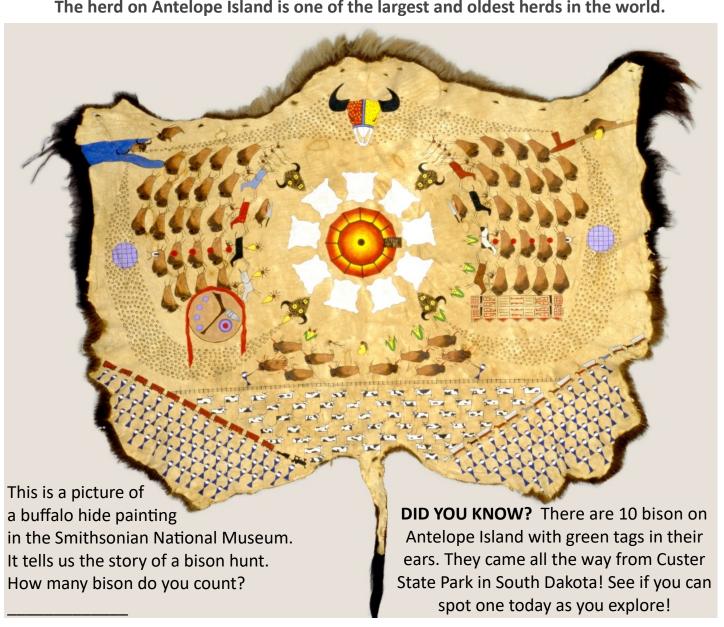
Once, tens of millions of bison roamed North America. However, in the 1800s, hunting brought them close to extinction, In 1893, a group of 12 bison were taken by boat to Antelope Island for preservation and protection. When Antelope Island became a state park, the bison herd was in very poor health.

Today, the Antelope Island bison population is in the hundreds. In 1987, the annual Bison Roundup began in order to manage the herd. Bison are herded by cowboys into corrals to be checked for health and treated for disease.

There is only enough food and water on the island for 500 bison, so each year dozens are auctioned at the roundup. The auctioned animals are sent to other herds around the country to increase genetic diversity. The money raised from the auction helps fund conservation efforts on Antelope Island.

Today, there are over 350,000 bison in North America.

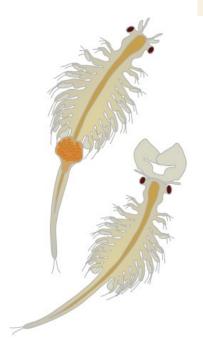
The herd on Antelope Island is one of the largest and oldest herds in the world.



# That's a Lot of Water!

Antelope Island used to be under a lot of water. About 32,000 years ago Lake Bonneville covered almost a quarter of what is now the state of Utah. The dark area on the picture is the size of Great Salt Lake; the light area is historic Lake Bonneville.

To learn more about Lake Bonneville, check out the displays in the Visitor Center!





Use the **BOLD CAPITAL** letters below to find the animal name!

Great Salt Lake is very salty! The ocean is a**B**out 3.5% salt, while GSL is 13% on average, and can be as much as 26%!

WateR evaporates In the desert suN, but the salt stays bEhind. This makes it the perfect habitat for \_\_\_\_\_ behind. This makes it the perfect habitat for \_\_\_\_\_ migrating birds.

THere is also a lot of bacteRia that lives In the water, sometiMes resulting in a rotten egg smell. If you smell something today, just remember it's because GSL is a great Place to live... if you're bacteria!

# 

### DID YOU KNOW?

In 1870, the local newspaper reported a sea monster lived in the lake!



# Water, Water Everywhere?



Most of Utah is a desert. That means water conservation is very important.

**Conservation** means using only what you need, in order to make sure there is enough for everyone.

Do you know how much water you and your family use? Use the worksheet below to learn more!

Gallons of water used	Times per day	Gallons per day
Shower: <b>2</b> gallons per minute	(Minutes showering per day)	
Wash face or hands: <b>4</b> gallons		
Load of laundry: <b>30</b> gallons		
Flushing the toilet: <b>5</b> gallons		Total Used:

### **DID YOU KNOW?**

The average family of four uses 400 gallons of water a day!
2,000,000 (two million) people live in the Wasatch Valley. That's 500,000 families!
How many gallons of water are used in Wasatch Valley per week?
Answer:

Write **ONE** thing your family can change today to save more water:

\_\_\_\_\_

# Plant Find

Botanists study plants and their uses. You can be a botanist today! While you are walking around Antelope Island State Park, find the plants in the photos below. Investigate them, and see if you can match each plant to its description. Draw a line to connect each plant description to its picture.



### **Cheat Grass**

This plant is an invasive species.
The seeds are sharp and get caught in animals' fur.

There is a lot of cheat grass on the island. It is only green in the early summer.

### **Desert Sage**

This plant is a small shrub with fuzzy leaves. It has a strong smell that Native Americans would use in ceremonies.

### Phragmites

This plant is very tall (15ft) and has fluffy seed heads.

It is an aggressive invasive plant outcompeting native plants, and displaces native animals.

### Rabbitbrush

This plant has skinny leaves. Its stem is fuzzy to protect it from sun and wind. It is very common on Antelope Island. Rabbits love to eat it and hide under it.

### Why Are Invasive Plants a Concern?

Invasive plants are plants that came from another area and are now growing where native plants would normally grow. They grow bigger and faster than native plants. This means there is less water, soil, and sunlight for the native plants to grow. On Antelope Island, native plants are the food sources for the animals that live here. When invasive plants crowd out native ones, animals on the island may not have enough food.

# Biology Bingo

Animals use their amazing senses to find food and learn about their surroundings. Let's go on a scavenger hunt to test your powers of observation!

### Find everything in one row (down, across, or diagonally) to get a bingo!

A PLANT TALLER THAN YOU	ER THAN A SPIDER ROUND		GRASS	
A FEATHER	SOMETHING UNUSUAL	A ROCK WITH LICHEN	SOMETHING SOFT	
SOMETHING WHITE	OOLITIC SAND (ROUND SAND GRAINS)	AN ANIMAL TRACK	A PLANT SEED	
SCAT (ANIMAL DROPPINGS)	A BISON	A BRINE SHRIMP	SOMETHING THAT MAKES NOISE	

### DID YOU KNOW?

A hawk can see four times as far as you can!

# It's For The Birds

Great Salt Lake is a very important place for many different kinds of birds. Thousands of birds use the lake to rest during their long migrations. While they are here, they eat many brine shrimp and brine flies. Some birds build nests along the shore and raise their young. Great Salt Lake is one of the most important places for migratory birds in the world!

Can you match the bird names with the pictures below? Hint: Bird pictures and names can be found in the visitor center.

A: California Gull B: Eared Grebe C: American Avocet

D: White Pelican E: Black-Neck Stilt F: Wilson's Phalarope













# Home Sweet Habitat

Draw a line to match each desert animal with its habitat (home in nature).

### COYOTE



Lives in grasslands, where there is lots of food to catch.

### **BURROWING OWL**



Lives in a burrow in the dirt, where it's nice and cool in the summer.

### **MULE DEER**



Lives near rocky hillsides for protection from predators.



If you were an animal on Antelope Island, which habitat would you live in?

- A. Great Salt Lake
- **B.** Sand
- C. Mountains/Cliffs
- D. In a Shrub

Draw a picture of you as an animal in your habitat. Include what you need to survive!



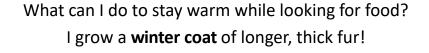
# Wintertime Animal Adaptations

An adaptation is a special behavior or body part that helps an animal survive in its environment. Every winter, animals on Antelope Island have to adapt to colder weather, frozen water and less food. How do they survive?

Match the picture to the animal description to learn about each animal's unique way of getting through the winter.



Porcupine





Cottontail rabbit

I fly south with my flock in migration to avoid the cold temperatures.



Mouse/small rodents

In the summer, my fur is brown to help me camouflage. In the winter, it turns white to match the snow.



My large back feet act as snowshoes and help me move quickly. I can also **double-digest** my food to get more nutrients.



Bird

I keep warm by grouping with my friends in a **herd**. It also helps us watch for predators.



It's hard to stay warm when you're so small! I burrow under the snow to find food, so I don't have to go outside in the wind and cold.



**Bison** 

I change what I eat from grasses to tree bark in the winter, so it's easier to find food.

I also add a seasonal layer of **insulating fat** to keep warm.

# Fielding Garr Ranch

In the 1850s, before Antelope Island was a State Park, it was owned by the Mormon Church and operated as a ranch for cattle and sheep. Fielding Garr Ranch is named after the ranch manager from that time. It is located on the southern end of the island, where there is a reliable freshwater spring.



The ranch was isolated from Salt Lake City, so they had to make everything they needed. Blacksmiths were very important. They made tools, household items, horseshoes, nails and repaired broken equipment. Blacksmiths also created unique brands to mark the cattle on the ranch, which permanently identified their owners.

### Reading a Brand

Rules: 1. Left to Right	2. Top to Bottom 3. Outside to Inside	Imagine you are a cattle rancher.
<b>R</b> "R"	R Quarter Circle R R Circle R	Design and draw your own brand!
R Tumbing R	R Half Diamond R Diamond R	
<b>∠</b> Lazy R	Rafter R Box R	
<b>A</b> Reverse R	R Bar R	
R Walking R	Name the Brand?	1
R Flying R	1. H	
<b>R</b> Running R	2. <b>K</b>	
	4. 4.	
	<b>5</b> . S	

Up for a Challenge?

Pick out an interesting tool in the shed and find out what it was used for!

# Life on the Ranch

Fielding Garr Ranch was a home from 1848 to 1981.

Over the years, many different people lived and worked there.

Children were an important part of day-to-day work on the ranch.

Girls helped their mothers by gathering eggs, water, and wood for the fire, and sewing, cleaning, and cooking. Boys helped their fathers in the field, took care of farm animals and cattle, chopped wood, and harvested crops.

Imagine you lived a day as a child growing up on Antelope Island.

Write a journal entry about what you did that day:

### **BONUS CHALLENGE**

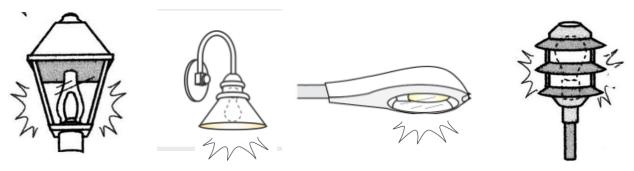
Can you find s	omething being	used in a di	ifferent way	than it was	made for?
(H	int: Look aroun	d the kitche	n in the Ran	ch house!)	

What did you find?	

# Dark Sky

### Galileo said, "I love the stars too much to be afraid of the dark."

Humans need light to see when it's dark outside, but where should that light go? **Light Pollution** is a term used by scientists when light goes up in the dark sky instead of shining where it is needed. Light pollution keeps us from seeing the stars well, and can harm **nocturnal** animals and migrating birds.



Put an X through the wasteful lamps and circle the good ones!

### Ways to Conserve Light at Home

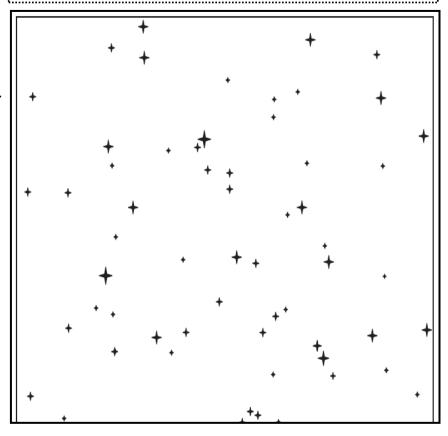
- Use a yellow/amber light instead of bright white.
- \* Turn lights off when not in use.
- \* Point light down to the ground.
- \* Install the light closer to the ground.
- Only use the amount of brightness you need.

### DID YOU KNOW?

In 2017, Antelope Island became an International Dark Sky Park.

That means it's a great place to come watch meteor showers, stargaze, or even look at a full moon.

**Star Stories:** Use the space below to create your own constellation. Tell a friend the story about what it is!



# What Does a Ranger Do?



Park rangers have many types of jobs. As a Junior Ranger, you can help park rangers to protect and preserve Antelope Island State Park and every other park you visit.

Rangers help educate the public (that's you and your friends) by teaching them about the park.

Rangers keep the park and visitors safe, help hurt or lost visitors, and protect the resources inside the park.

Now that you are a Junior Ranger, we offer you a challenge.

We challenge you to protect the earth and its resources everywhere you go.

You can do things like...

- Clean up an area at home, in your neighborhood, or at the park. Pick up litter you find and put it in the garbage can.
- Talk about Antelope Island State Park to your class at school. Tell your friends what a great place it is and teach them what you know!
- Become a Junior Ranger at other parks!
- Come back often to attend other Ranger Programs, so you can update your skills and learn new ones.
- Check out Utah's other state parks at: <u>www.stateparks.utah.gov</u>

### Junior Ranger Pledge

I pledge to help protect the plants and animals of Antelope Island State Park, to share what I have learned with others, and to be a friend to all the natural places I explore.

# Certificate of Achievement Awarded to:

For the completion of the Junior Ranger Program at

# Antelope Island State Park

Date



Ranger/Naturalist