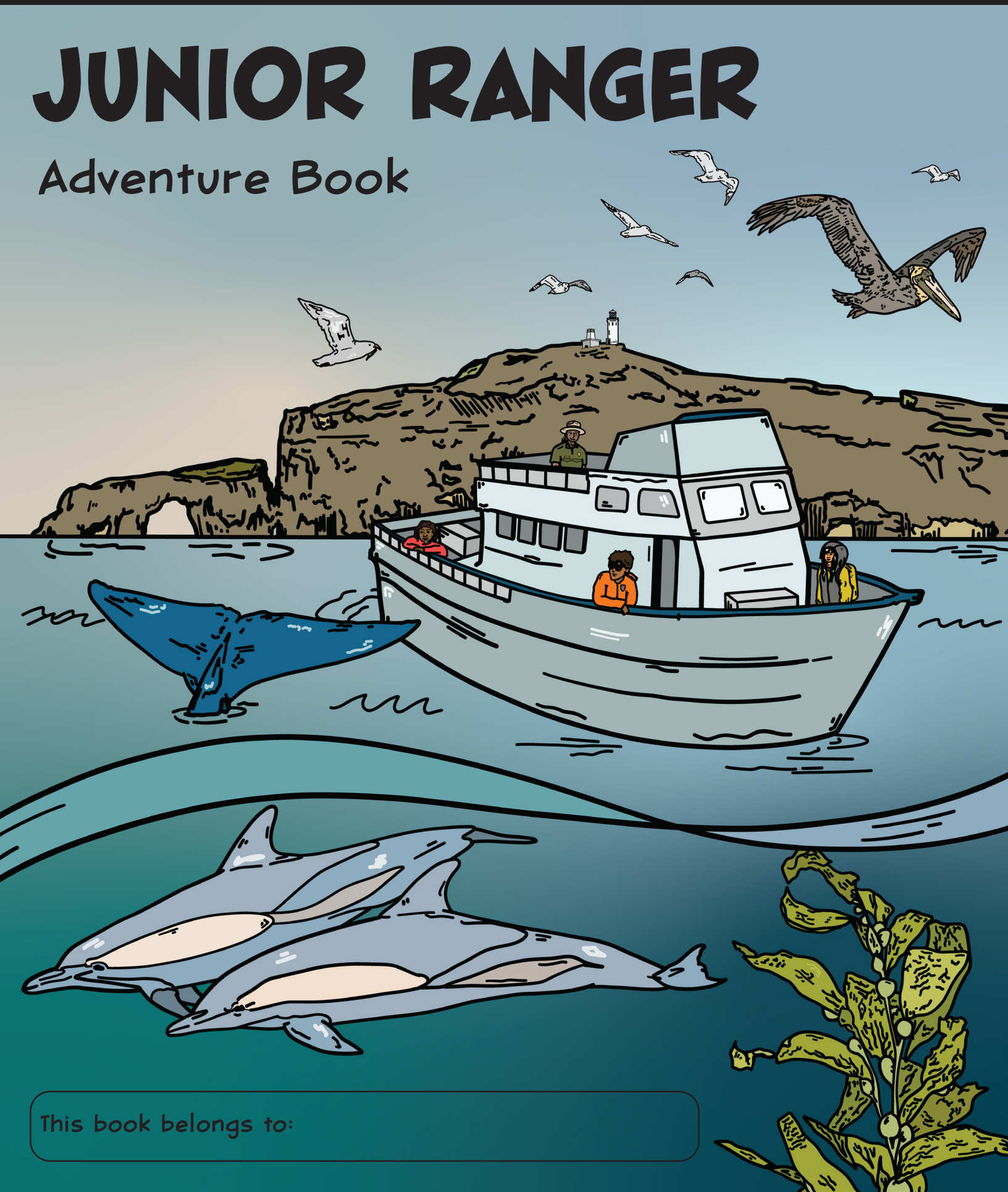
Channel Islands

National Park Service
U.S. Department of the Interior

Channel Islands National Park

JUNIOR RANGER

Adventure Book



This book belongs to:

Become a Junior Ranger

Located off the coast of Southern California, Channel Islands National Park is made up of five islands and the waters that surround them. The park is home to about 30 threatened and endangered plants and animals and almost 150 endemic species which are found nowhere else on Earth.

The islands are also important to people. The northern Channel Islands are the homeland of the Island Chumash. They and their ancestors lived on the islands for at least 600 generations. Ranchers called the islands home for six generations.

Today, this national park protects the natural ecosystems and their cultural significance. You can learn, explore, and play on the islands.

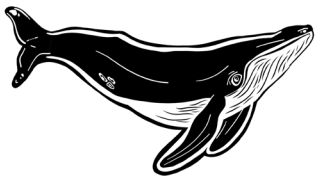
Step 1: Learn

Learn about the plants, animals, and history of the Channel Islands by completing the activities in this booklet.

To earn your badge, complete at least _____ activities.
(Your Age)

If you are 10 or older, complete at least 10 activities.

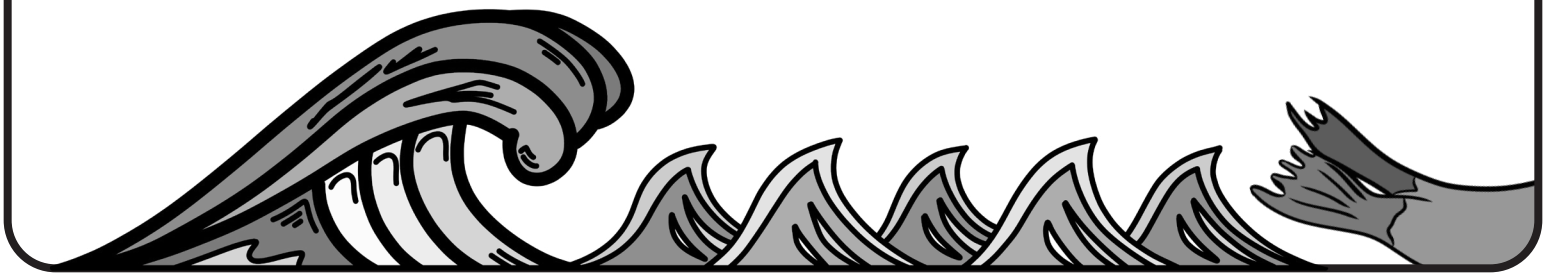
Activities in this book are marked with symbols that show the pages suggested for your age group, but you may complete any of the activities.



Blue Whale
Age 7 or younger

Brown Pelican
Ages 8 to 11

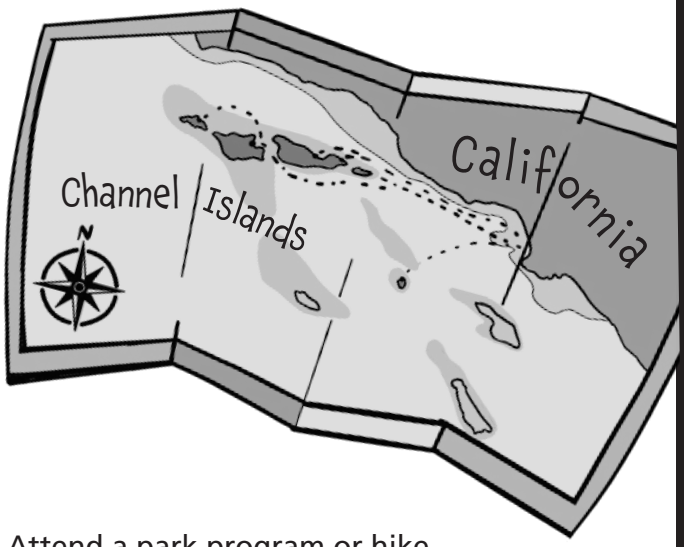
Island Fox
Ages 12 and older



Step 2: Explore

Take a boat to the islands, explore the visitor center, or enjoy an adventure near your home.

TO DO:



- ◯ Interview a park ranger or volunteer using the questions inside the back cover.

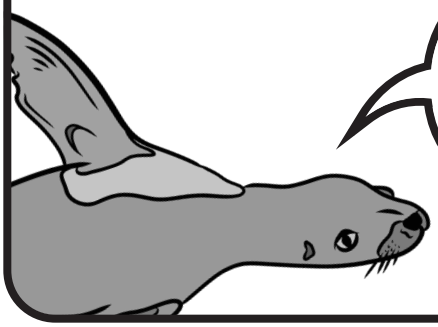
  Complete two of the following adventures. Use the activity space on page 27 to record your observations by drawing a picture or completing the sentences.

- ◯ Take a hike or a walk on the islands, through the native plant garden at the visitor center, or near your home.
- ◯ Watch the park film at the visitor center or at www.nps.gov/chis.
- ◯ Attend a park program or hike.
- ◯ Explore the tidepool in the visitor center, a beach on the islands, or the live ocean webcam at www.nps.gov/chis/learn/photosmultimedia/ocean-webcam.htm.

Step 3: Protect

Help protect your national parks by taking a pledge and earning your official Junior Ranger badge.

- ◯ Share this book with a Channel Islands National Park ranger or volunteer or mail or email it to the address on the back cover.
- ◯ Sign your pledge on the inside of the back cover and receive your official Junior Ranger Badge.



Soak up more knowledge on our website!

Scan this QR code with a smartphone camera to dive deeper into park information and videos.

DIVE DEEPER

SCAN ME!

Arrowhead Adventures

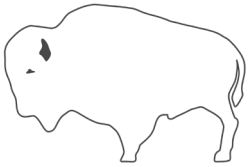
There are over 400 national park sites in the United States. These places include parks, battlefields, monuments, seashores, historic sites, and recreation areas. The National Park Service preserves and protects these places because of their importance to our nation.

How do you know you are in a place that is cared for by the National Park Service?

Look for the Arrowhead!

You can find it on signs, buildings, or park rangers. This symbol is a promise to protect and preserve special places like the Channel Islands. Each symbol inside the arrowhead represents something the National Park Service protects.

Look at the arrowhead and the symbols below. Match the symbol to the word(s) it represents.



Trees and Plants

Culture and History

Landscape

Water and Recreation

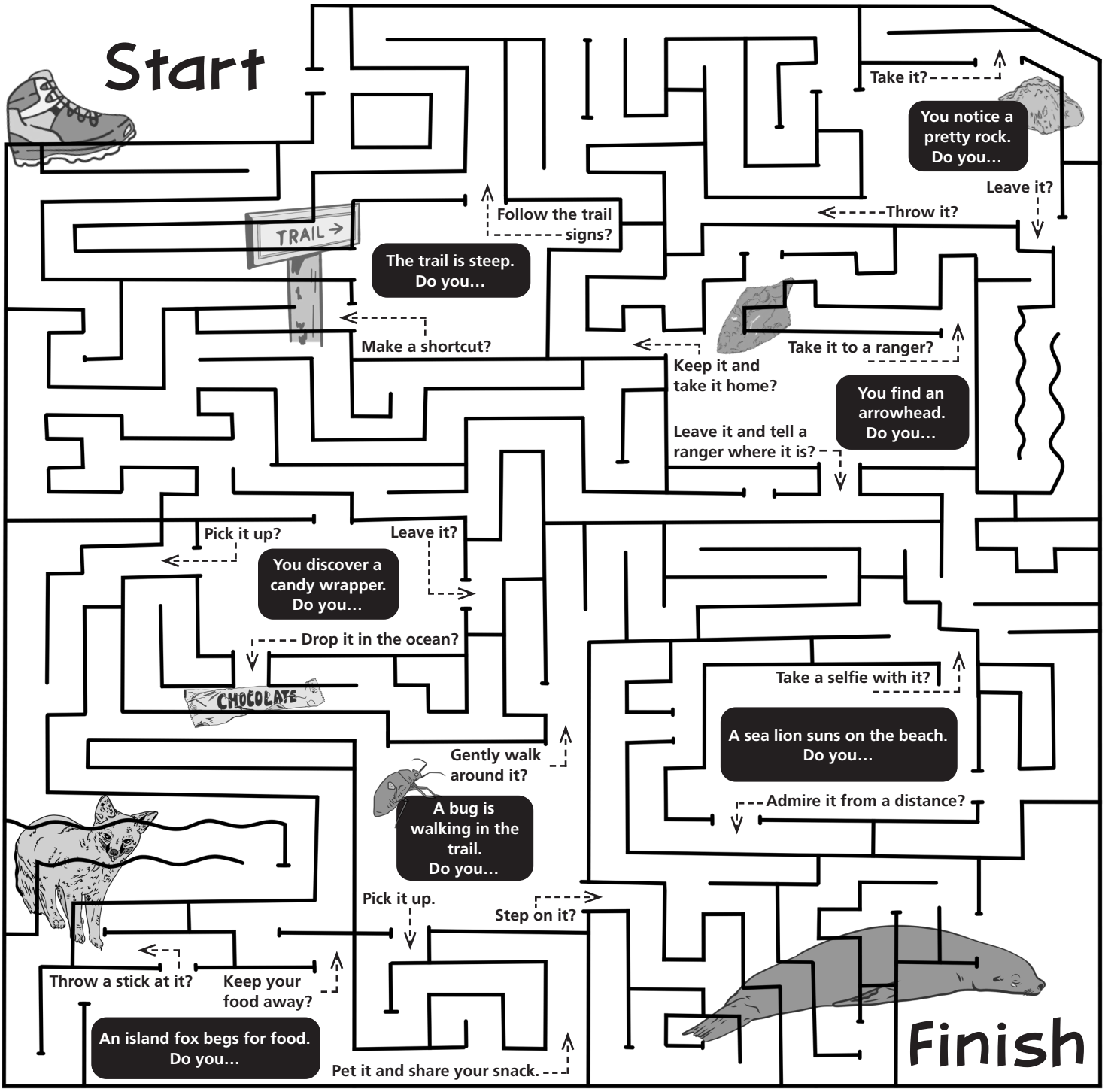
Animals

A-Mazing Choices

Did you know that each choice you make while exploring national parks gives you the opportunity to take care of the natural world around you and protect important historical sites?

Everything in national parks, including artifacts, fossils, plants, animals, shells, and rocks, are protected by law, and cannot be collected. What other good choices can you make while visiting?

Trace your way through the maze, but be careful, only the choices that protect the park will lead you to the finish!



Navigating the Islands

Channel Islands National Park is made up of five islands off the coast of southern California. Explore the islands in person, using the topographic maps at the Ventura visitor center, or on the website at www.nps.gov/chis/planyourvisit/maps.htm.

On this map:

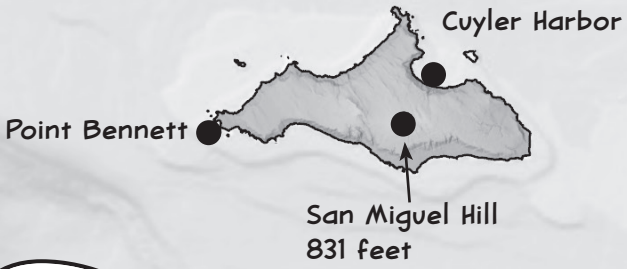
- ◯ How many islands are in the park? _____
- ◯ Mark an **X** where you have visited or would like to visit.
- ◯ Circle the highest point in the park.
- ◯ Draw a marine animal you might see in the Santa Barbara Channel.

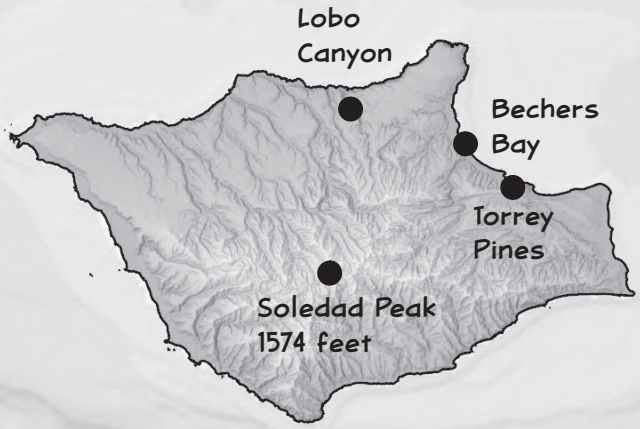
Choose an island and complete the following:

- ◯ Draw the path that a boat could take to get to the island from Ventura.
- ◯ What direction would you be traveling on the boat to get to the island? _____
- ◯ Estimate the total miles from Ventura to the island. _____

San Miguel Island • *tuquan*

- Chumash name *(tuquan)* meaning is unkown
- Eight miles long, four miles wide





0 5 10 15

Miles

Santa Rosa Island • *wima*

- Chumash name *(wima)* means "red pine"
- Fifteen miles long, ten miles wide

Santa Barbara

Santa Barbara Channel

Ventura

Santa Cruz Island • *limuw*

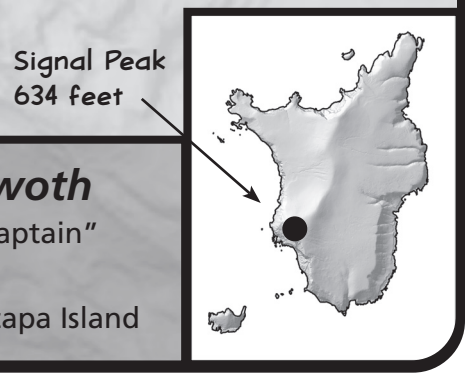
- Chumash name *(limuw)* means "in the sea"
- Twenty miles long, up to six miles wide

Anacapa Island • *'anyapax*

- Chumash name *('anyapax)* means "mirage"
- Five miles long

Santa Barbara Island • *siwoth*

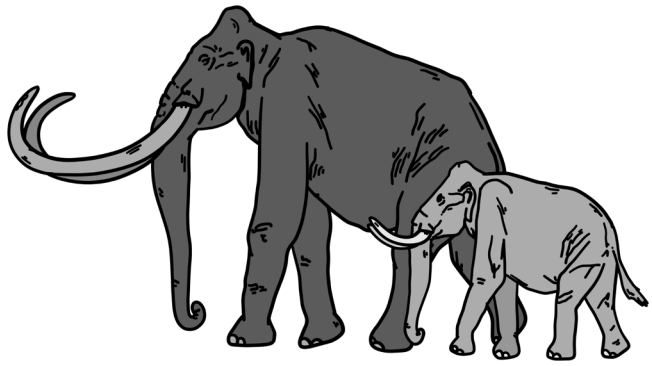
- Chumash name *(siwoth)* means "captain"
- About one square mile
- Located about 40 miles SE of Anacapa Island



Exotic Endemics

An endemic (en' demik) species is a one-of-a-kind creature that only lives in a certain part of the world and nowhere else. Over generations, endemic species on the Channel Islands have evolved and adapted (changed to fit in) to help them survive.

Island animals have adaptations like becoming smaller or larger than their mainland relatives. Isolated from their mainland relations and exposed to a unique environment, the Channel Islands have almost 150 endemic species.



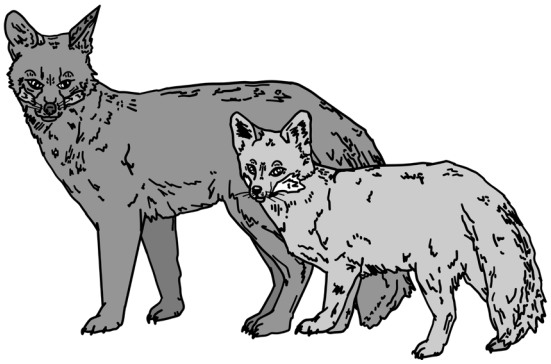
Columbian Mammoth (evolved into) → Pygmy Mammoth

The Channel Islands Pygmy Mammoth

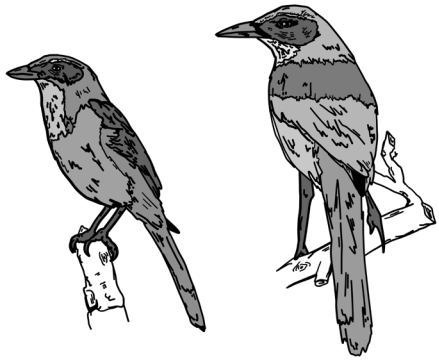
- ★ evolved to be much smaller to survive with less food and water.
- ★ was about as tall as a refrigerator and half as heavy as a car.
- ★ went extinct about 10,000 years ago.

The Island Fox

- ★ is smaller! It is about the size of a small house cat.
- ★ is the top land predator, eating beetles, plants, berries and small animals like deer mice and lizards.
- ★ hunts during the day and night.



Gray Fox (evolved into) → Island Fox



California Scrub Jay (evolved into) → Island Scrub Jay

The Island Scrub Jay

- ★ only lives on Santa Cruz Island and nowhere else in the world.
- ★ is larger and a brighter blue color.
- ★ can live as long as twenty years.

Explore the evolutions and adaptations of the island animals on page 5.

Imagine you are an animal that has arrived at the Channel Islands for the first time. To survive, you must adapt to your new home. Choose the characteristics your new island animal will have. Circle as many as you want from each section. Draw a picture or write a story about your unique island animal.

You have:

- feathers
- fur
- scales

You arrived to the islands by:

- flying
- swimming
- floating on a piece of wood or a boat

You choose to live on the island:

- in a tree
- on the ground
- in a burrow
- in the water and on land

You eat:

- seeds
- plants
- animals
- both plants and animals

To survive, you adapt by becoming:

- larger
- smaller

- brighter in color
- duller in color

- louder
- quieter

- camouflaged
- patterned

- a day hunter
- a night hunter
- a day and night hunter

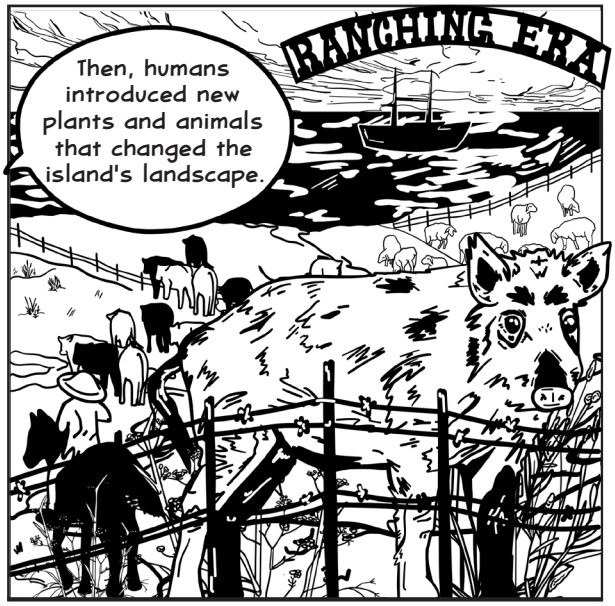
My New Island Animal

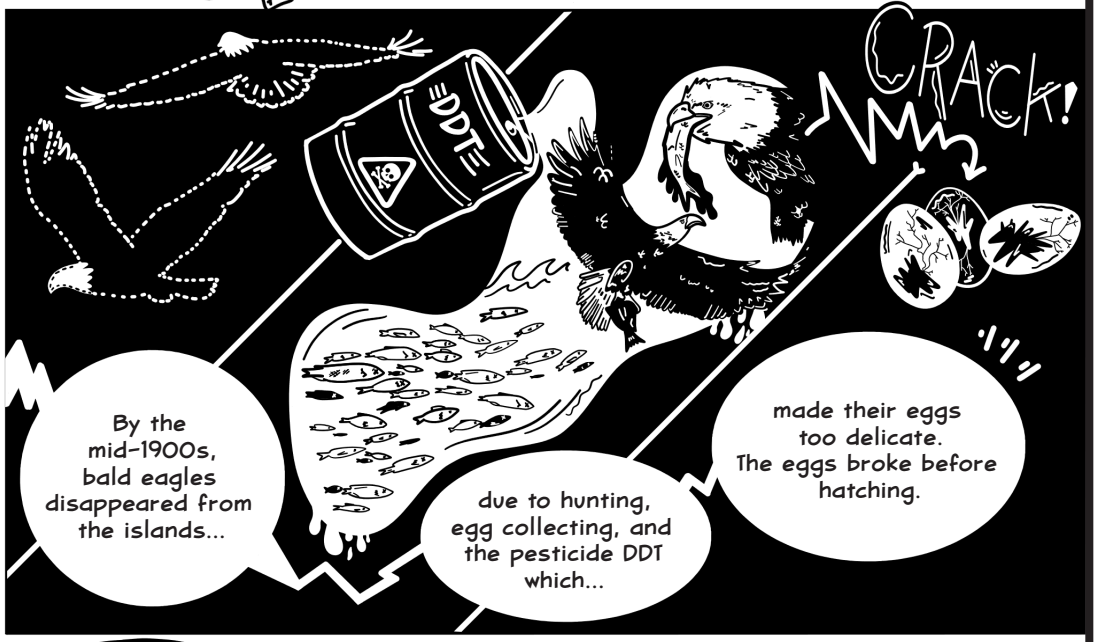
My Evolution Story

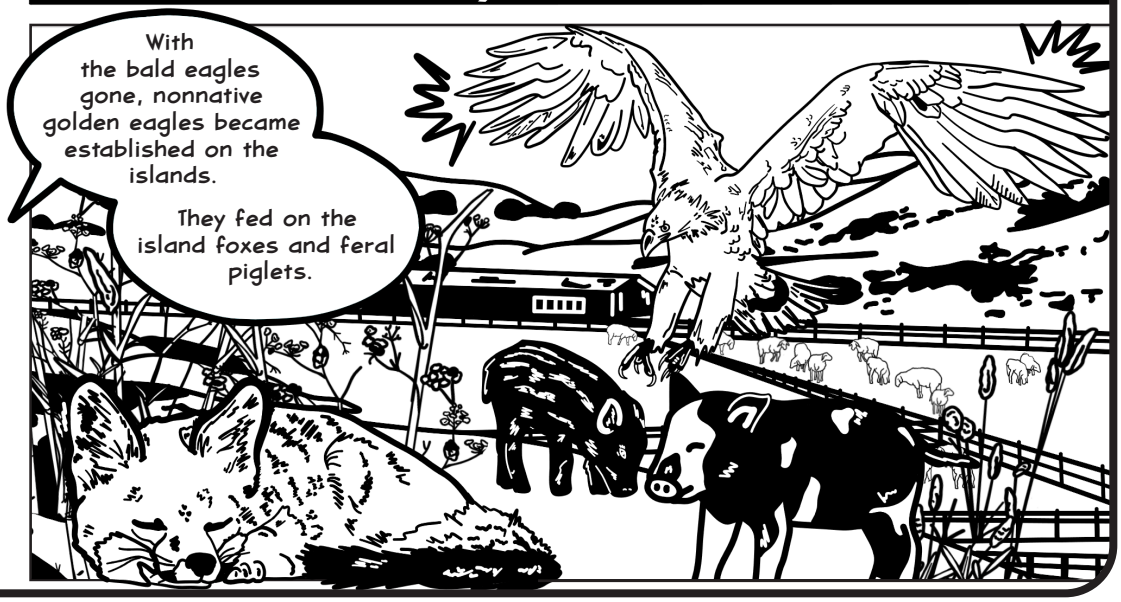
★ **BONUS!**

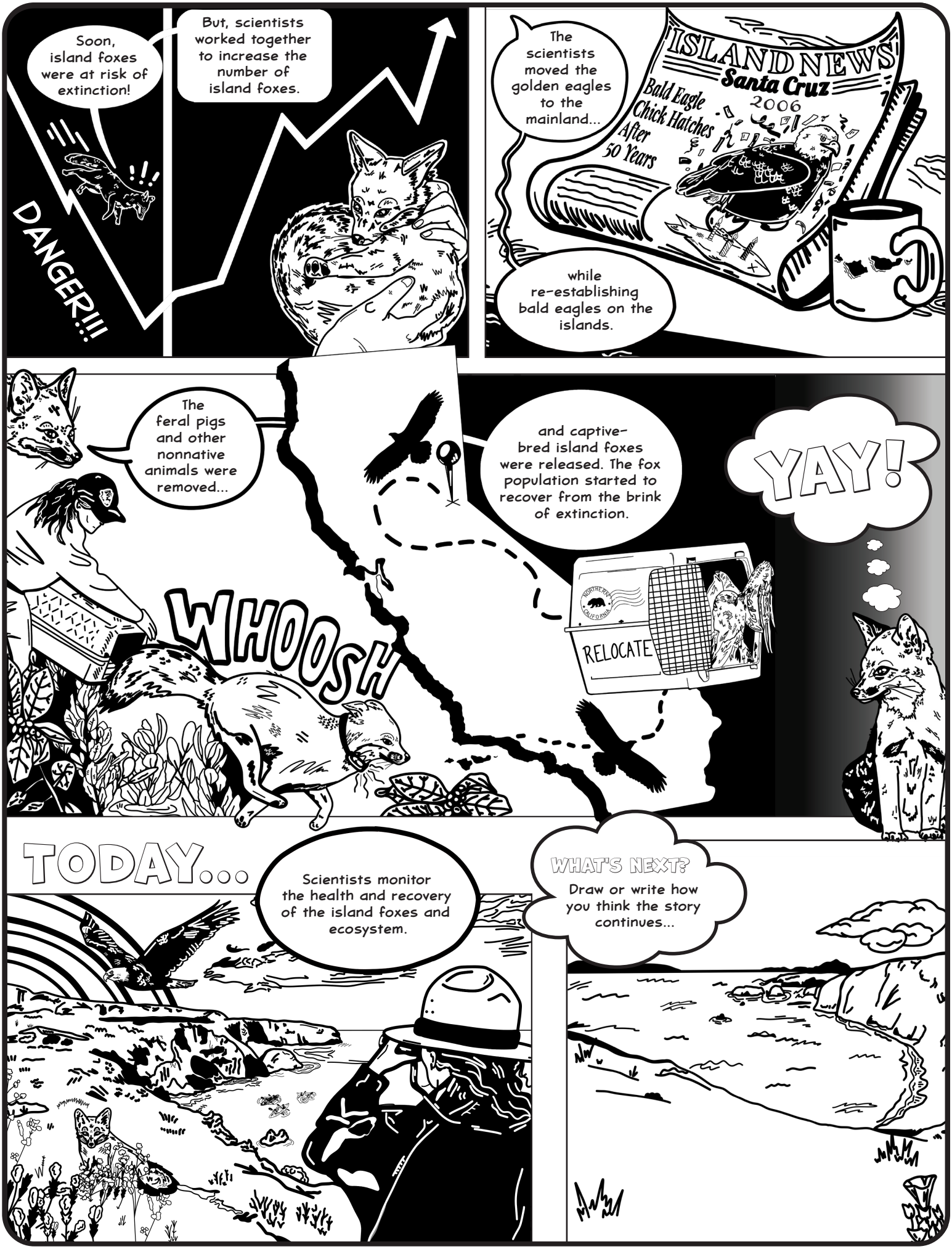
Can you act out your story for a friend or ranger? →

Outfoxing Extinction

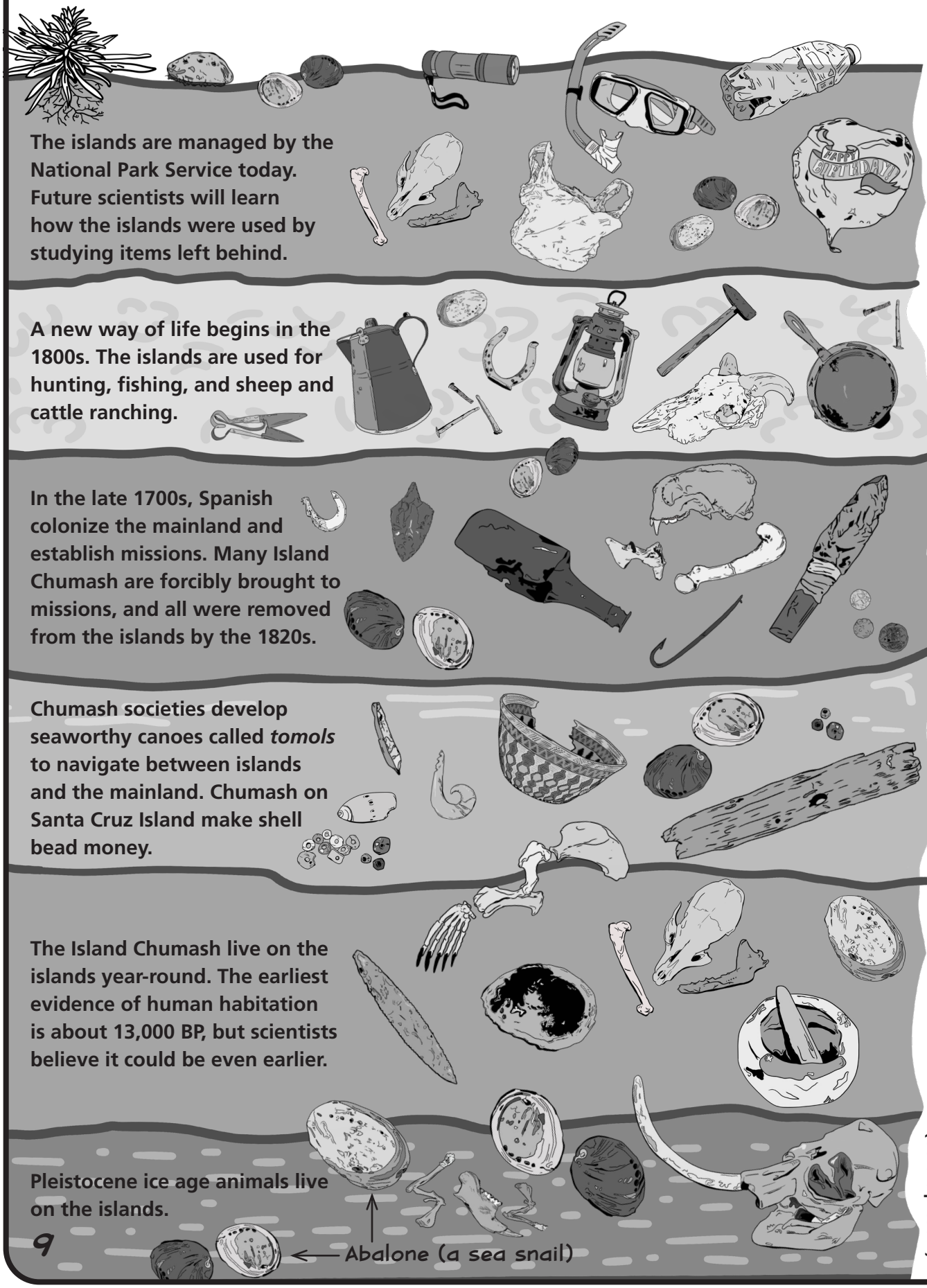







Soon, island foxes were at risk of extinction!
DANGER!!!
But, scientists worked together to increase the number of island foxes.
The scientists moved the golden eagles to the mainland...
ISLAND NEWS
Santa Cruz
2006
Bald Eagle Chick Hatches After 50 Years
while re-establishing bald eagles on the islands.
The feral pigs and other nonnative animals were removed...
WHOOSH
and captive-bred island foxes were released. The fox population started to recover from the brink of extinction.
RELOCATE
YAY!
TODAY...
Scientists monitor the health and recovery of the island foxes and ecosystem.
WHAT'S NEXT?
Draw or write how you think the story continues...

Clues to the Past



Youngest

1998 – Present

The islands are managed by the National Park Service today. Future scientists will learn how the islands were used by studying items left behind.

1820 – 1998

A new way of life begins in the 1800s. The islands are used for hunting, fishing, and sheep and cattle ranching.

1540s – 1820s

In the late 1700s, Spanish colonize the mainland and establish missions. Many Island Chumash are forcibly brought to missions, and all were removed from the islands by the 1820s.

1,000 – 2,000 BP

Chumash societies develop seaworthy canoes called *tomols* to navigate between islands and the mainland. Chumash on Santa Cruz Island make shell bead money.

2,000 – 13,000 BP

The Island Chumash live on the islands year-round. The earliest evidence of human habitation is about 13,000 BP, but scientists believe it could be even earlier.

>13,000 BP (before present)

Pleistocene ice age animals live on the islands.

Oldest

Science of the Past: Archeology and Paleontology

Archeologists study stories and human-made objects called artifacts such as baskets and tools. These objects provide hints about what life was like for humans in the past.

Paleontologists study the remains of ancient life. Fossils provide clues to what plants and animals lived in an area thousands, or even millions, of years ago. Fossil remains can range from tiny shells to skeletons of pygmy mammoths.

Scientists find clues to the past in the ground. As they dig deeper, they discover older artifacts and fossils. This evidence can be examined to tell a story of past life.

Can you be a scientist?

Complete the questions or tasks below using the evidence you see in the layers on page 9.

- ◯ What item appears in every layer?

  _____

  Draw a line connecting them.
  In what ways do you think these were used?

- ◯ **Draw a star** on one item Island Chumash would have used to collect or prepare food. How do you think it was used?

- ◯ **Draw a star** on one item an island rancher would have used to collect or prepare food. How do you think it was used?

- ◯ **Draw a box** around evidence that a paleontologist may study.

- ◯ The islands were never connected to the mainland. Paleontologists make educated guesses about how animals arrived on the islands. How do you think they got there?

  A. Swam

  B. Flew

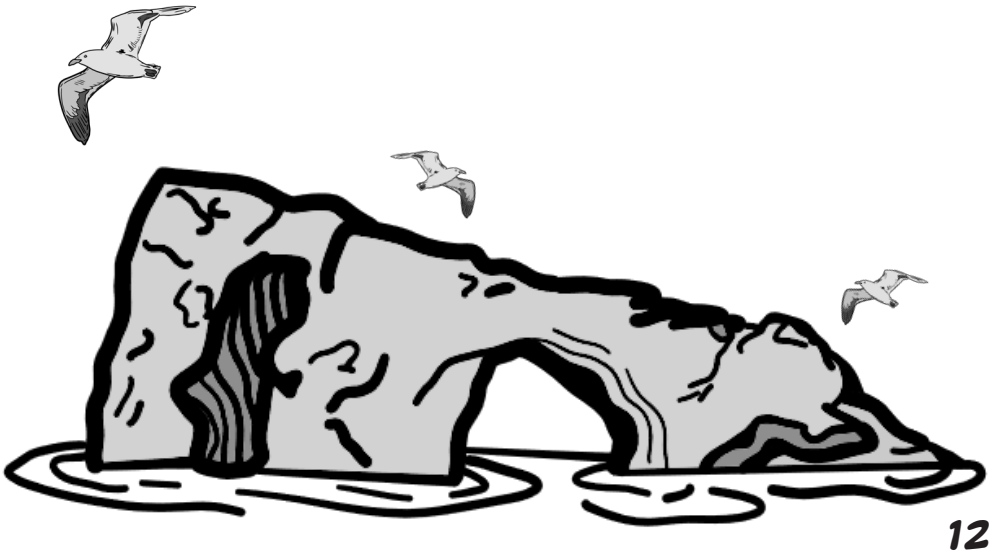
  C. Floated on a piece of wood or canoe

  D. All of the above

- ◯ Imagine an archeologist 100 years in the future finds a special item that you left behind. **Draw your item below.** What could they learn about you by studying this item?

My Archeology Journal

My Notes and Sketching



Vaqueros de la Isla

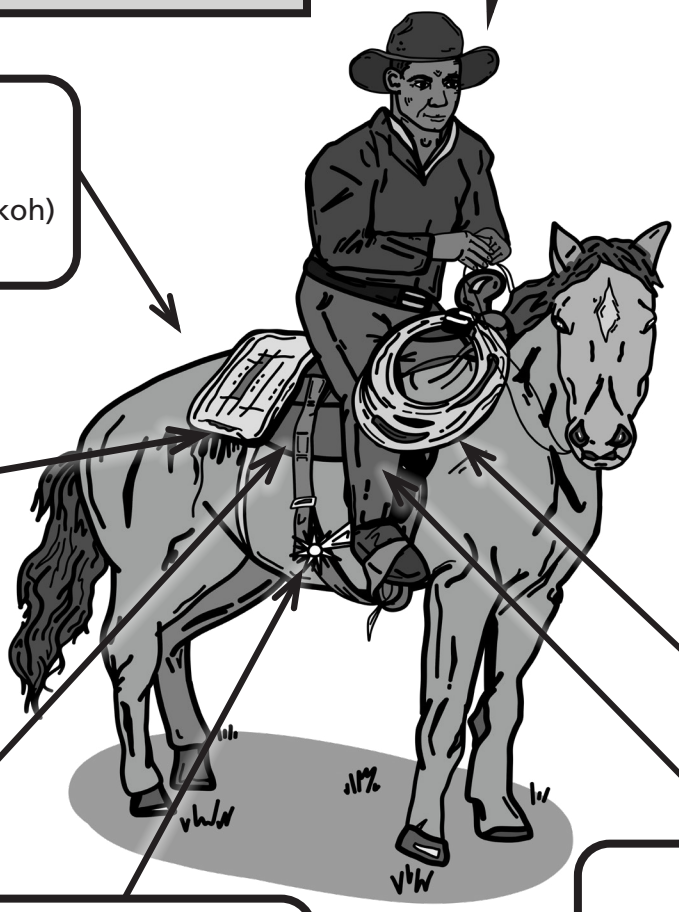
Vaqueros de la Isla or Island Cowboys?

Vaqueros (pronounced vah-kair-ohz) were the first people to herd cattle on horseback in North America. They introduced the ancient Spanish horse riding tradition to the Southwest, which eventually made its way to the Channel Islands. Their name is derived from *vaca*, the Spanish word for—you guessed it—cow.

Ranching began on the islands during the middle 1800s. Over the years, ranch workers on the islands included California Indians and immigrants from Italy, France, and Mexico. They brought their cultures and languages with them to the islands. Many English words come from the Spanish language.

Explore the scene below.

- Say the cowboy words and then say the Spanish words they came from. Do you hear a connection?
- Try using the Spanish word in a sentence.



Bronco
potro bronco
(poh-troh brohng-koh)
wild horse

Poncho
Poncho
(pan-cho)
English speakers use the Spanish word for a square wool covering.

Saddle
Silla
(see-yah)
a seat fastened on the back of a horse or other animal for riding

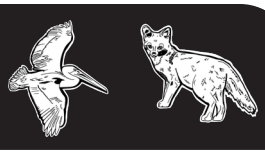
Spurs
Espuelas
(ess-pway-las)
metal object used to signal a horse to quick action

Ranch
rancho
(rrahn-choh)
land for raising cattle

Lariat
la reata
(la rreh-ah-tah)
the rope

Chaps
chaparreras
(chah-pah-rreh-rahs)
leg armor for riding through chaparral (tangled shrubs and thorny bushes)

Island Innovation



Island ranching offered advantages over the mainland, including no predators and the world's best fence—the ocean! But there were many challenges as well, such as transporting supplies and livestock to and from the islands and living in an isolated environment.

The life of a cowboy, as shown in tales of the old west, was real on the islands, but without the saloons and shoot-outs! Island *vaqueros* had to adapt to the difficulties of island life by learning to make do with what they had.

Examples of innovation (to do something in a new way) and self-reliance are seen throughout the islands' ranching history.

On Santa Cruz Island, a worker made a sawmill out of an old tractor. On Santa Rosa Island, one *vaquero* was famous for making his own abalone jerky. On Santa Barbara Island, residents used a sled on wooden tracks to move supplies up a steep cliff from the ocean landing. On San Miguel Island, ranchers built homes with lumber from shipwrecks.

Have you innovated to solve a problem in your life?

Look at the ranching items below. How can you combine some of them into one unique object that could be used by an island rancher? Draw your item below. Name your object and create a story about its purpose.

Lantern

Silla

Espuelas

Horseshoe

Nails

Bandana

Hammer

Tin Mug

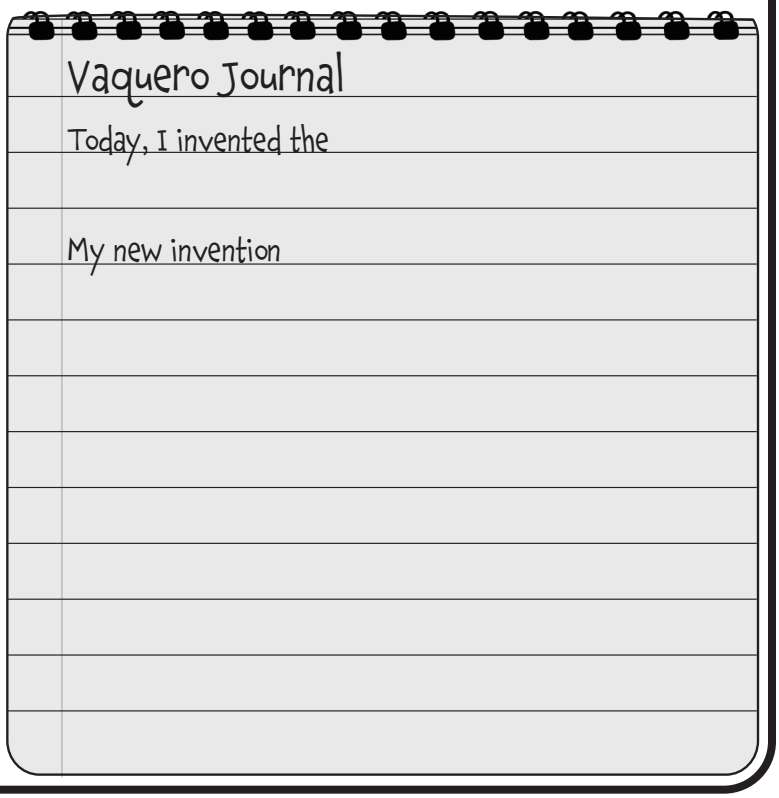
Shipwreck Lumber

Sheep Sheers

Poncho

La Reata

My object drawing!



A bright orange garibaldi curiously admires you. This protected species is California's state marine fish. He chases you away from his territory. **Move forward one space.**

Instead of leaves, kelp has blades. The blade absorbs sunlight and nutrients while creating food and oxygen. **Take a deep breath.** At least 50% of the oxygen we breathe comes from the ocean!

Canopy Zone

The sea meets the surface here. Sunlight shines through the kelp and you feel warmer! Seabirds and marine life hunt in the thick kelp forest.

Mid-water Zone

It's getting brighter and warmer as you swim up! This is home for predators and prey. Big fish are everywhere feeding on kelp and plankton.

A sea lion curiously watches you! They communicate by "barking." They sound like, "Art, Art, Art!" Can you bark like a sea lion? **Bark to your friends to move one space forward.**

Along the kelp stipes, you see a balloon-like float. These floats, filled with gas, lift the stipe and blades to the surface. **Why do you think they want to reach the surface?**

Park marine biologists, nicknamed "Kelpies," visit the same locations yearly to count the plants and animals that live there.

You swam into an urchin barren. Without enough predators, there are too many purple sea urchins and they have eaten all of the kelp here. **Go back to start.**

You found a giant kelp holdfast! This holds the kelp to the rocky ocean floor. **You see a baby octopus, move two spaces forward.**

Sea Floor

Burr! It's chilly down here! Kelp forests form in shallow open waters because they need sunlight to grow.

To Play: You are scuba diving in a giant kelp forest and must return to the surface to catch your boat.

Gather coins or small objects to use as your game pieces and place one piece for each player on the Sea Floor space.

Take turns flipping a coin. When the coin lands on tails, move one space. When the coin lands on heads, move two spaces. Follow the instructions on the spaces. The first player to make it out of the Splash Zone wins!

Kelp Forest Quest

Over 1,000 species of marine plants and animals can be found within the Channel Islands' kelp forests. The kelp, a type of algae, provides fish and invertebrates with food and shelter from predators. Dive in to play the game and learn more! **Start your quest at the sea floor.**

Splash Zone

Shake the water off your feet. Above the high tide, this area is only sprayed with water. The few species that live here must survive extreme weather and predators from land and water.

A black oystercatcher looks for food along the shoreline. Watch as it uses its sharp, bright orange beak to pry open mussels for lunch! What is your favorite lunch food? **Tell a friend and move one space forward.**

Congratulations!

You made it to your boat on time! Thank you for respecting the kelp forest and intertidal zones as you explored! **How can you help to protect these environments when you visit again?**

The rocks ahead are covered in barnacles! These crustaceans create a super strong cement to stick to rocks, boats, and even whales. **You stepped on them, move back two spaces.**

High Tide Zone

Watch where you step! This mostly dry area is flooded at high tide. The creatures that live here are strong enough to survive pounding waves.

Intertidal Zone

Feel the sun on your face as you explore the mussel beds and rocky areas that provide plenty of food and shelter for animals.

You found an endangered species! Black abalone are disappearing due to overfishing and disease. You leave it undisturbed. **Move forward one space.**

You spy a Bat Star! Sea stars have adaptations to survive, like spiny skin. To move, they use tube feet that only work underwater. **How fast do you think they can move?** Find the answer. **Move like a sea star to move forward one space.**

I can move about 3 inches per minute!

Plant Safari

Plants on the Channel Islands provide food and homes for animals. Many of the plants on the islands are rare or only grow naturally on the Channel Islands.

Explore the plants on the islands, in the native plant garden at the visitor center, or on our website at www.nps.gov/chis/learn/nature/plants.htm.

1. Find at least two of the seven plants and fill in the tags completely.
2. Choose a new plant. Draw it in the blank circle and fill in the tag.

Most of the year, look for a lifeless stalk.

In Spring, look for bright yellow flowers.

Plant: Giant Coreopsis
Location: Native Plant Garden
I notice:
It has yellow flowers and a thick stalk.

Nicknamed "Tree sunflower" for its yellow flowers, it goes dormant to survive dry conditions.

Plant: Coastal Prickly Pear
Location: _____
I notice: _____

Look for oval shaped pads covered with spines.

Spines were used by Island Chumash to create tattoos.

Look for peeling bark and fern-like leaves.

Once grew on the mainland but only grows in the moist, foggy climates of the islands now.

Plant: Santa Cruz Island Ironwood
Location: _____
I notice: _____

Look for rosettes of thick pointy leaves.

Also called a "Live Forever," this rare succulent only grows on cliffs of the Channel Islands.

Plant: Greene's Dudleya

Location: _____

I notice:

Look for narrow, green, sharply toothed leaves.

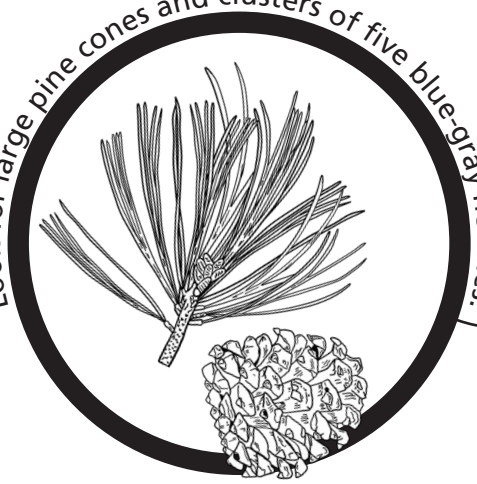
Red winter berries give this plant the nickname "Christmas berry."

Plant: Toyon

Location: _____

I notice:

Look for large pine cones and clusters of five blue-gray needles.



May be the rarest pine subspecies in the world, only growing on Santa Rosa Island.

Plant: Santa Rosa Island Torrey Pine

Location: _____

I notice:

Do you see a nest, flowers, fruit, or signs of animal life?

Do you notice a smell, texture, or color?

Plant: _____

Location: _____

I notice:

Birds

Channel Islands National Park is an important place for many landbirds, shorebirds, and seabirds. Landbirds found on the islands differ from year to year. They range from tiny hummingbirds to mighty bald eagles. Some have become new species that only live on the Channel Islands and nowhere else in the world, like the Island Scrub Jay.

For seabirds and shorebirds, the islands provide a place to rest and breed. They support the largest breeding colonies of seabirds in Southern California and the only breeding colonies of California brown pelicans in the United States.

Have you ever been birding? Sometimes it is easier to hear a bird before you see it. Listening can give you clues to the types of birds near you. Some birders use a mnemonic (nyoo-mon-ik) to help them identify bird songs. A mnemonic is a phrase, words, or syllables that help you to remember something.

Read out loud the mnemonic sounds or phrases for the birds below.

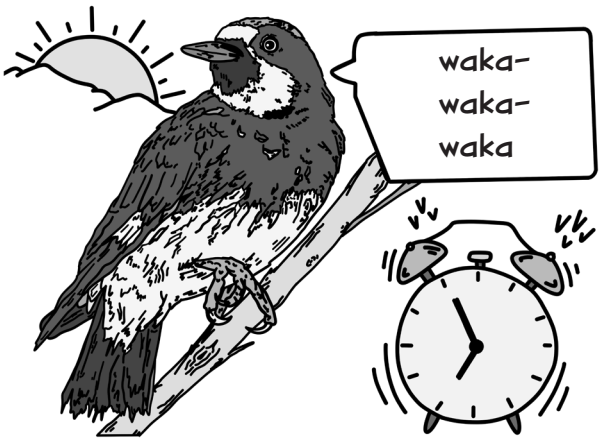
Sit quietly in an outdoor space for a few minutes and listen to the bird songs around you. On page 20, create your own mnemonic for a bird you hear. Draw and write your bird's details if you see it. Use the bird count journal to record other bird sightings.

California Brown Pelican

White-Crowned Sparrow

California Quail

Spotted Towhee

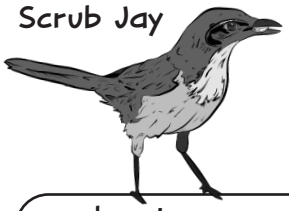


Acorn Woodpecker

Tips for birding:

1. Get outside.
2. Gear up with a pair of binoculars.
3. Take a bird ID field guide with you.
4. Listen, look, and get excited!

Island Scrub Jay



My bird's song sounds like:

My bird's sketch and notes

Size:

Nest:

Habitat:

Behavior:

Colors:

Food:

Bird Count Journal

Date: _____

Time: _____

Location: _____

Season: Fall Winter Spring Summer

Weather:

Species	Count	Total	Notes
Blue Heron	|||	3	I saw a nest.

Park After Dark

CHANNEL ISLANDS
NATIONAL PARK

Create your own park after dark island adventure story!

1. **DO NOT LOOK at the story below yet!**
2. In the top section, fill in each blank with one word for each description.
3. Using the words you wrote, fill in the matching blanks in the story.
4. Read your story to a friend.

A verb is an action.
Examples: run, fly, jump

• An adjective describes a person, place, or thing.
Examples: fuzzy, silly, warm, slimy

1. Animal sound _____
2. Type of tree _____
3. Color _____
4. Something you find in the sky _____
5. Number _____
6. Adjective _____
7. Body part _____
8. An item you take camping _____
9. Verb _____
10. Adjective _____
11. Verb ending in "ing" _____
12. A type of insect _____
13. A bad smell _____
14. A size _____
15. Adjective _____

_____1_____What's that noise? You hear a swish in the _____2_____ tree behind your tent, but it's too dark to see what animal made the sound. Your campsite is pitch _____3_____. The moon has disappeared behind a _____4_____ and _____5_____ stars dot the night sky.

The darkness heightens your other senses. You feel the _____6_____, ocean breeze on your_____7_____. There is a saltiness in the air and on your tongue.

Digging through your _____8_____, you finally find a flashlight. You turn it on and look around. There is no sign of your mystery animal, but you can easily see the trail now. As you _____9_____ down the _____10_____ path towards the ocean, you spot a Townsend's big-eared bat swooping and _____11_____ as it hunts _____12_____(s).

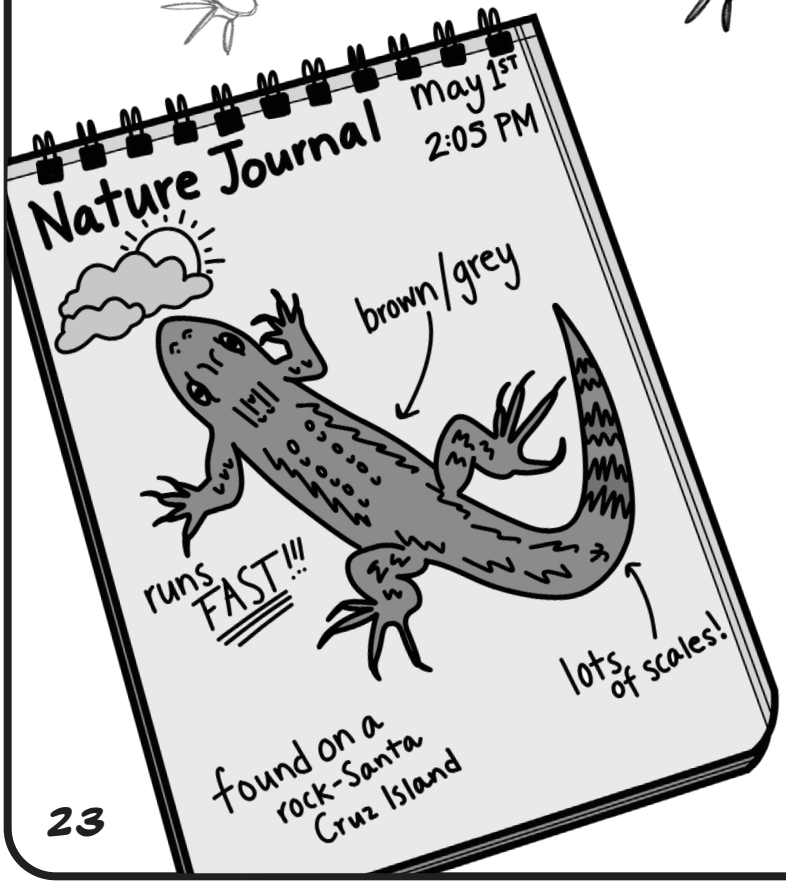
At the pier, a strong odor fills your nose. It smells like _____13_____. It's rare to see the _____14_____ island spotted skunk.

Your evening journey ends at the shoreline. The lapping of the waves calms you. As you drift off to sleep, you have _____15_____ dreams about the adventure you will have tomorrow. Good night Channel Islands.

Fearless Field Sketching

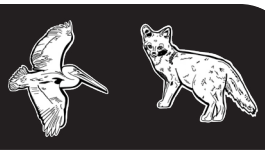
Sketch in a journal to record nature around you!

1. To start your sketch, ignore the details and begin with light, fast lines and simple shapes.
2. Loosely and lightly sketch the whole form capturing the basic shape, posture, and proportions.
3. Drawings don't need to be perfect. Do not erase your lines. Keep sketching until they look right to you.
4. Next, draw over the light lines and add details and notes about what you see.



Draw your lizard here!

Nature Detective

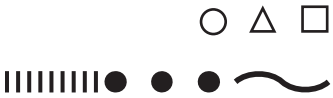


Naturalists investigate nature like a detective! As a naturalist, your job is to make observations, record them in a nature journal, ask questions, and share your results. When you record your journal entries, remember the word **WIN**:

Words	Record details or descriptions like "rough, wet, green, tiny, slow."
Illustrations	Draw what you see! It doesn't have to be perfect.
Numbers	Record numbers like how big it is or how many you see.

My drawing:

- ◯ Shows simple shapes
- ◯ Shows texture
- ◯ Is labeled



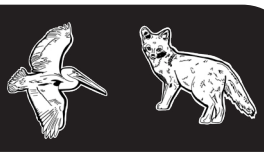
bright blue tail

I wrote about:

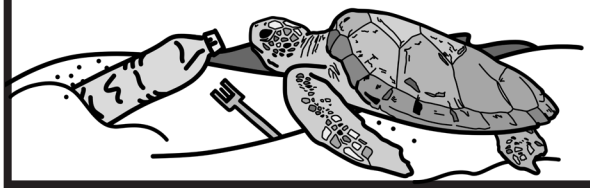
- ◯ Where I found it
- ◯ The weather
- ◯ The sounds I heard
- ◯ What color it is
- ◯ The texture
- ◯ What I think it is
- ◯ What I wonder
- ◯ What else I found

Find a space outside to observe a plant, animal, or insect. Record your observations using the checklist to guide your journal entry. Share with a ranger or a friend to help identify the species.

Ocean Advocate



Some threats to marine life include pollution, warming ocean temperatures, and invasive species. Sea birds can eat or get wrapped in trash that has flowed from rivers into the ocean. Plastic bags and balloons can look like jellyfish or squid which many marine animals eat. Wherever you live, you can help protect marine life.



To advocate means to speak up and support something that is important to you.

Write a letter, song, or poem to a friend or family member telling them why the ocean is important to you and how they can help protect it too.

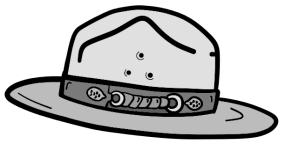
Check mark three things you choose to do starting today to help protect marine life:

- ◯ Reduce my use of single use plastic
- ◯ Recycle as much as possible
- ◯ Carry a reusable water bottle
- ◯ Store my food in reusable containers
- ◯ Carry reusable utensils and straws
- ◯ Bring my own shopping bags to the store
- ◯ Decorate for parties without using balloons
- ◯ Reduce energy use by turning off lights
- ◯ Participate in beach or land cleanups
- ◯ Explore and enjoy the beach without disturbing wildlife or removing rocks or shells

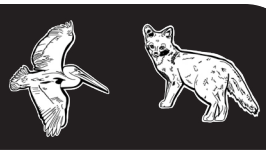
Dear _____,

FROM:

Jr. Ranger _____



Stump the Ranger



Steps to stump the ranger:

- ◯ Choose a plant or animal that you see at the visitor center, native plant garden (hint: there are labeled plants here), on the islands, or at www.nps.gov/chis/learn/nature but **keep it a secret!**
- ◯ Fill out the form below. If you need help learning the name of the plant or animal you have chosen, ask a different ranger or volunteer.
- ◯ Find a ranger or volunteer at the visitor center, on the islands, or by emailing the address on the back cover. Share the date, time, and location but do not tell them what you saw!
- ◯ Allow them to ask you three questions.
- ◯ Allow the ranger or volunteer one guess!
- ◯ Share why you chose this plant or animal.

Stump the Ranger Form

Secret plant or animal that I saw: _____

Date: _____ Time: _____ Location: _____

Ranger Question 1:

Ranger Question 2:

Ranger Question 3:

Ranger's Guess:

Activity Space

Use this page to finish Step 2: Explore. Complete two of the following adventures and record your observations below.

- ◯ Take a hike or a walk on the islands, through the native plant garden at the visitor center, or near your home.
- ◯ Watch the park film at the visitor center or at www.nps.gov/chis.
- ◯ Attend a park program or hike.
- ◯ Explore the tide pool in the visitor center, a beach on the islands, or the live ocean webcam at https://www.nps.gov/chis/learn/photosmultimedia/ocean-webcam.htm.

Find something that surprises you on your journey and draw a picture or finish these sentences:

I notice...

I wonder...

It reminds me of...

It makes me feel...

Become a Jr. Ranger

My Park Ranger or Volunteer Interview

1. What is your name?

2. What do you like about your job?

3. What is one reason the Channel Islands are protected as a national park?

4. One more thing I'd like to know is...

Channel Islands Junior Ranger Pledge

As a Channel Islands Junior Ranger, I promise:

- ◯ to help protect island plants, animals, and history,
- ◯ share with others what I have learned today,
- ◯ and learn more about parks and my community so I can help take care of them.

Park Stamp

Jr. Ranger Stamp

Park Ranger's Signature

Junior Ranger's Signature

National Park Service
U.S. Department of the Interior

Channel Islands National Park

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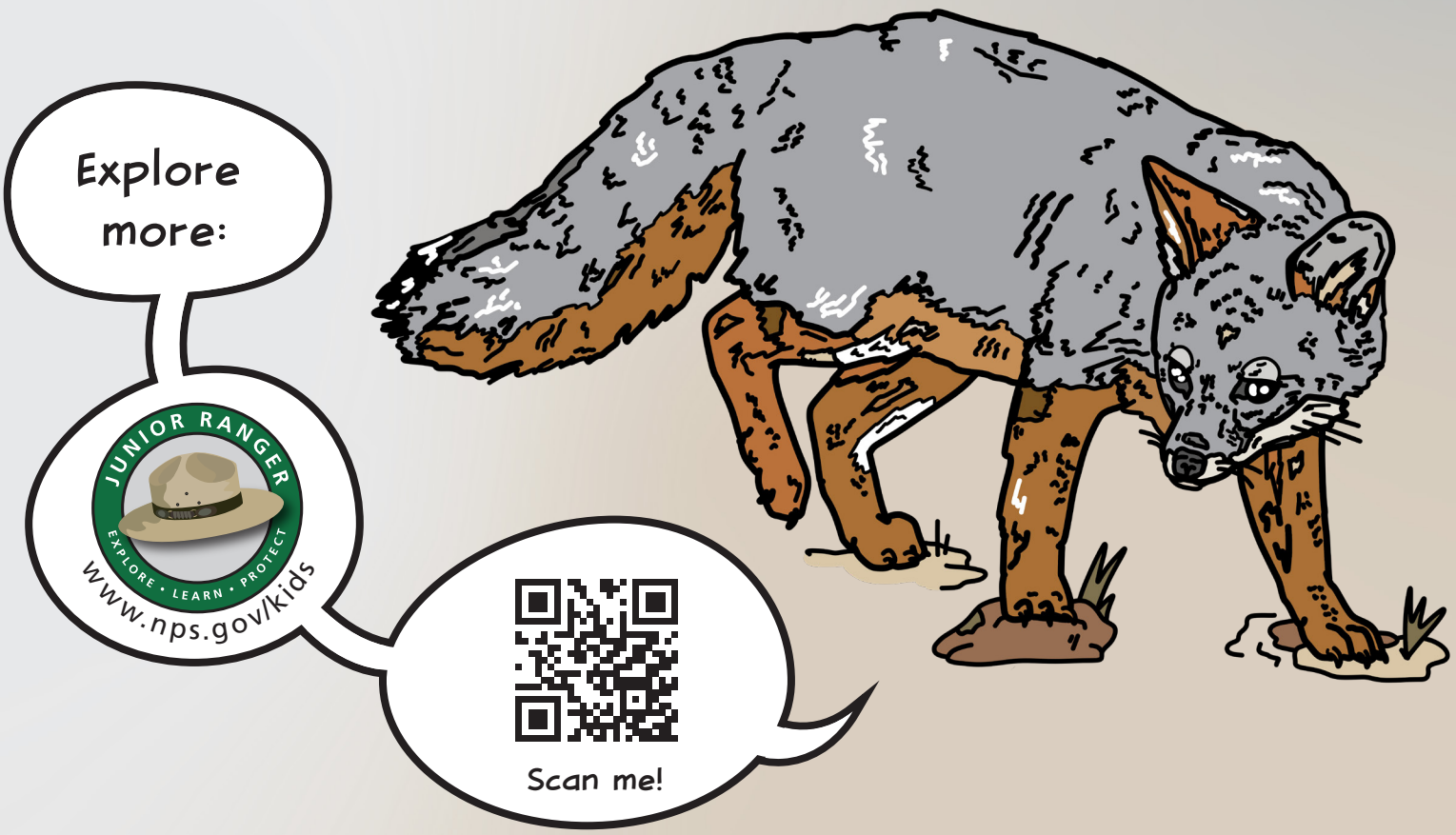
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