

Pre-K Ocean Voyage Group Exploration

Lesson 1: Who Lives in the Ocean?

Many different animals live in the ocean! These animals have adapted over time to have body features like fins, tails, and blowholes to help them survive in their environment. In this lesson we invite students to make observations of different animals, describe their body features, and classify different animals into categories of where the animal is best suited to live depending on the body features the students observe.

Goals, Objectives, and Outcomes

Goal:

Students will gain confidence and begin to develop science identity.

Learning Objectives:

In this lesson, students will:

- Make observations of animals.
- Identify and describe body features of animals that live in the ocean and act out their movements.
- Classify and sort animals by where they live based on body features.

Student Outcomes:

After participating in this lesson, students will be better able to:

- Explain how an animal's body features help them to survive in their environment.
- Understand the types of animals that live in the ocean.

Standards

OSSE DC Early Learning Standards:

19. Investigates living things.

Indicators:

- 19a. Compares, using descriptions and drawings, the external body parts of

animals (including humans) and plants and explains functions of some of the observable body parts.

- 19c. Observes familiar plants and animals (including humans) and describes what they need to survive.

14. Matches, groups, and classifies objects.

Indicators:

- 14a. Groups objects according to a common characteristic, regroupes them according to a different characteristic and explains the grouping rules.

Lesson Preparation

Materials

- Books about ocean animals that highlight body features and adaptations for survival in the ocean
- Physical flat space or area to display “Ocean vs. Land” image sorting (see below)
- Materials for “Ocean vs. Land” animal classification
- Animal images for classification (attached)
- “Ocean” and “Land” labels for sorting (attached)
- String, yarn, shoelace, or other divider to separate “Ocean” and “Land”

Set-up

1. Print and cut out the provided animals for sorting (lamination optional). You can also use animal figurines if you have them available.
2. Print and cut out the “Ocean” and “Land” labels for sorting (lamination optional).
3. Prepare the space where students will be sorting their animals. You can do this by using a string or other divider to separate a space on the floor with the headers of “Ocean” and “Land” to label each half of the space (see photo above).

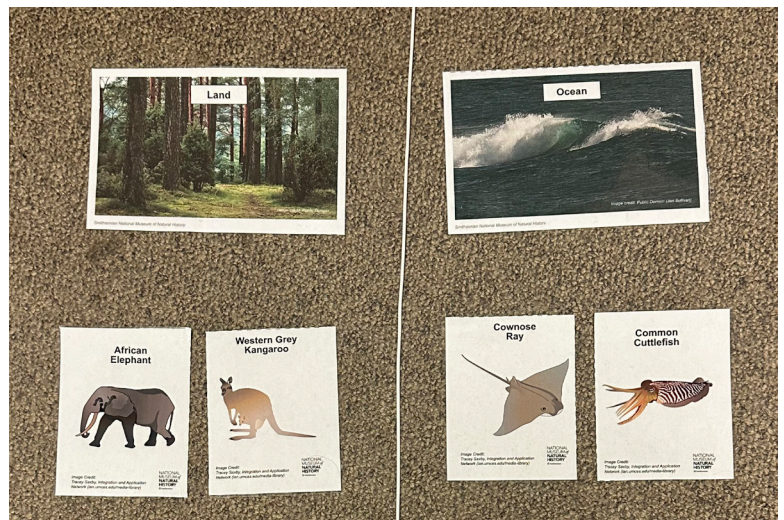


Image Caption: Example of the “Land” and “Ocean” categories laminated to create a T-chart for students to categorize animals that live on land or in the ocean.

Lesson Facilitation

1. **Hook:** Start with some body movement actions to help students think about how their body moves and what body features they have that help them move.
 - a. Say: ***“Let’s pretend we are visiting the beach! Let’s walk or move around...what body parts help us move around? [provide time for students to share responses] Great! Now let’s pretend we are taking off our shoes so we can feel the sand in our toes. What body parts help us take off our shoes? [provide time for students to share responses] Now that we are at the beach, what activities should we do? [provide time for students to share responses and act out beach activities] We can also swim! Let’s swim around! What body parts help you swim? [provide time for students to share responses] Phew! All that swimming sure made me tired! I am so happy that now I can go sit and rest on the sand and out of the water. My arms aren’t built to swim for very long!”***
2. **Introduction:** Review body features that helped students move around.
 - a. Say: ***“We are humans, a type of animal that lives on land! We have certain body features that help us to live on land, like our legs and feet, and while those features help us swim for a little while, we wouldn’t be able to live our whole life in the water. BUT some animals DO live their whole life in the water! And their bodies have certain features that help them to do just that!”***
3. **Read Aloud:** Share with students a teacher-chosen book or story highlighting animals that live in the ocean and certain body features that help them live there.
 - i. Say: ***“Let’s read this book to see what animals we can find that live in the ocean!”***
 - a. Guiding questions to ask when you see an animal in the book:
 - i. ***“What body parts do you see?”***
 - ii. ***“Can you pretend you have ___ [insert body part] ___ like this animal?”***
 - iii. ***“How would you move if you had ___ [insert body part] ___? Show me with your body!”***
 - iv. ***“How do you think that body part helps this animal?”***
4. **Think, Pair, Share:** After the Read Aloud, ask students to think about an animal they remember from the book and share that animal with a friend next to them.
 - a. Say: ***“Wow! There were so many different animals we saw in our book***

that live in the ocean. Can you remember an animal we saw? Think to yourself about an animal you remember seeing in the book. [provide time for students to think about an animal] ***“Great job thinking! Now, share that animal with a nearby friend.”*** [provide time for students to share responses with a friend]

- b. Say: ***“Thank you for sharing about an animal with your friend. Would anyone like to share their animal with the class?”***
- c. Potential follow up questions:
 - i. ***“What body features does this animal have?”***
 - ii. ***“What body features are the same as yours? What body features are different than yours?”***
 - iii. ***“How do those body features help the animal?”***

5. **Animal Classification:** Students will classify animals into “Ocean” and “Land” animals based on body features they observe.

- a. Say: ***“We just learned about different animals that live in the ocean. We noticed they have different body features or body parts that help them live in the ocean. Not all animals have body features that help them live in the ocean. Some animals have body features that help them live on land- just like we have legs to help us walk on land! Let’s see if we can make observations of different animals and think about if their body features would help them to live on land OR in the ocean.”***
- b. Say: ***“We have a lot of animals here that we need to classify! Each of you will get one animal to make observations about. We will take turns sharing our observations and classifying our animals. When it is your turn, you will observe your animal’s body parts and help us classify or sort your animal into where they live: LAND or OCEAN.”***
- c. Model classification using the whale as an example. Say: ***“I will start. Here is my animal. This animal is a whale. I think this animal lives in the ocean because it has fins and a large tail! [place in the ocean category] The fins and large tail help the whale to move around in the water.”***
- d. Pass out animal images or have animal images in a container for students to randomly draw from.
- e. Have students take turns sharing about and classifying their animals into the “Ocean” or “Land” section of the space.

- f. Potential follow up questions to ask your students to support them in classifying their animal:
 - i. ***“What animal do you have?”***
 - ii. ***“What body features do you see?”***
 - iii. ***“Where does this animal live, on land or in the ocean? What makes you think that?”***
- g. **NOTE:** Students might notice that some animals have similar features. Many animals have these features, but they might be used differently based on the needs of the animal. A dog’s tail and a shark’s tail are very different! They both have one, but the shark’s tail helps it to swim in the water quickly! A dog’s tail helps it balance when it walks on land.

6. **Summary:** Wrap up the lesson with a summary.

- a. Say: ***“Today we learned all about the body parts that help animals live in the ocean! We listened to a story about ocean animals, made observations of different animals and body features that help them live in the ocean, and we classified different animals into LAND and OCEAN groups based on their different body features.”***

Images: Lesson 1, Who Lives in the Ocean?

Instructions:

Print and cut the following pages to use with the Who lives in the ocean? lesson. (Lamination is optional.)

Table of Contents:

- Pages 7 – 12: Animal Images for Sorting
- Page 13: Sorting Category Labels (Land/Ocean)

Osprey



Image Credit:
Jane Hawkey, Integration and Application
Network (ian.umces.edu/media-library)

NATIONAL
MUSEUM of
**NATURAL
HISTORY**
© Smithsonian

Spotted Owl



Image Credit:
Tracey Saxby, Integration and Application
Network (ian.umces.edu/media-library)

NATIONAL
MUSEUM of
**NATURAL
HISTORY**
© Smithsonian

Grasshopper

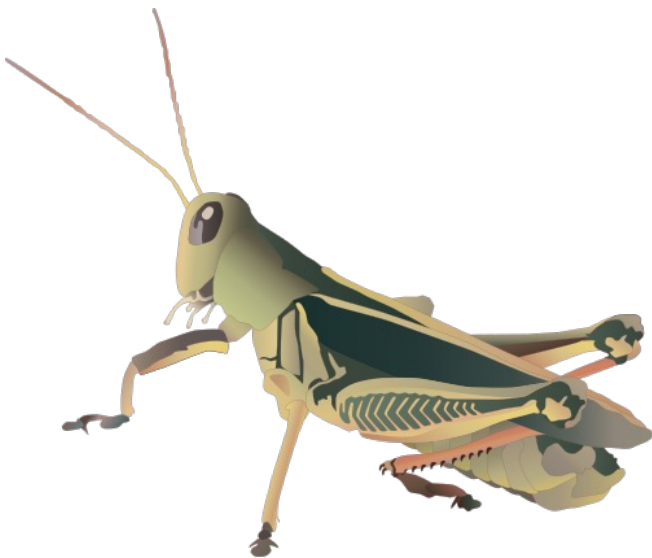


Image Credit: Kim Kraeer, Lucy Van Essen-
Fishman, Integration and Application
Network (ian.umces.edu/media-library)

NATIONAL
MUSEUM of
**NATURAL
HISTORY**
© Smithsonian

Little Brown Bat



Image Credit: Kim Kraeer, Lucy Van Essen-
Fishman, Integration and Application
Network (ian.umces.edu/media-library)

NATIONAL
MUSEUM of
**NATURAL
HISTORY**
© Smithsonian

Grizzly Bear



Image Credit:
Tracey Saxby, Integration and Application
Network (ian.umces.edu/media-library)

NATIONAL
MUSEUM of
**NATURAL
HISTORY**
© Smithsonian

Common Octopus

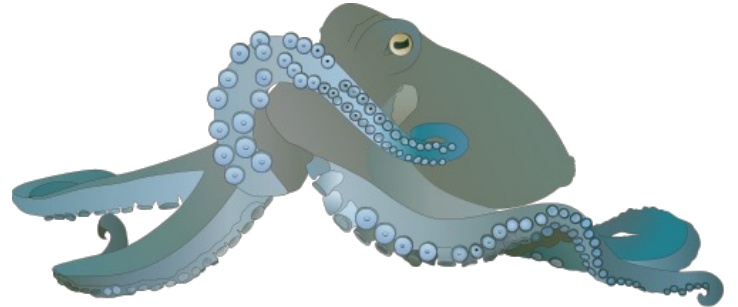


Image Credit:
Tracey Saxby, Integration and Application
Network (ian.umces.edu/media-library)

NATIONAL
MUSEUM of
**NATURAL
HISTORY**
© Smithsonian

Plains Zebra



Image Credit:
Tracey Saxby, Integration and Application
Network (ian.umces.edu/media-library)

NATIONAL
MUSEUM of
**NATURAL
HISTORY**
© Smithsonian

Pig

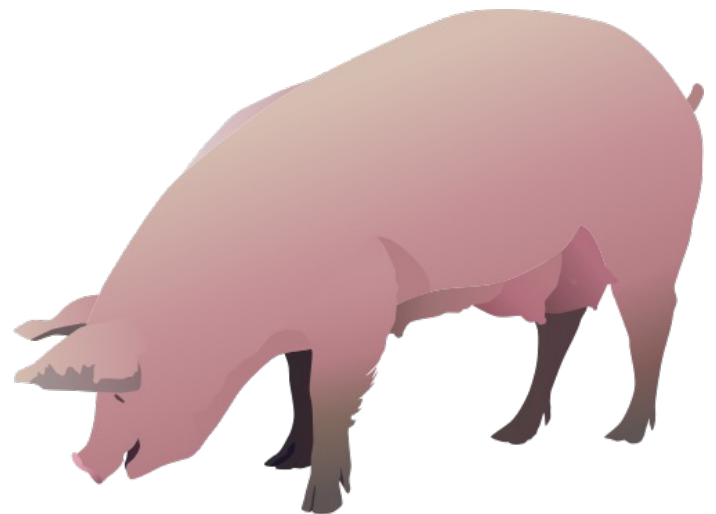


Image Credit:
Tracey Saxby, Integration and Application
Network (ian.umces.edu/media-library)

NATIONAL
MUSEUM of
**NATURAL
HISTORY**
© Smithsonian

African Elephant

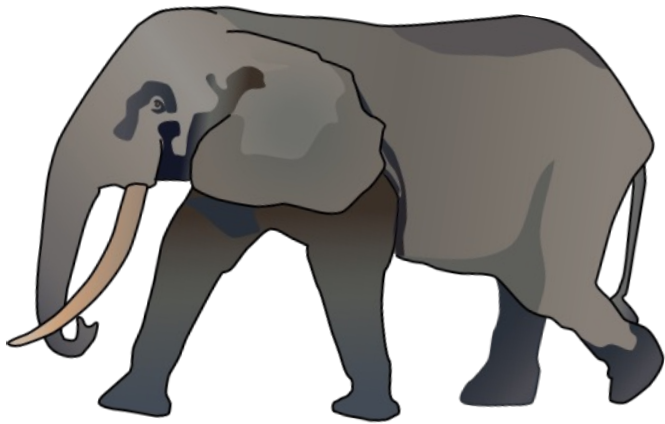


Image Credit:
Tracey Saxby, Integration and Application
Network (ian.umces.edu/media-library)

NATIONAL
MUSEUM of
**NATURAL
HISTORY**
© Smithsonian

Common Cuttlefish

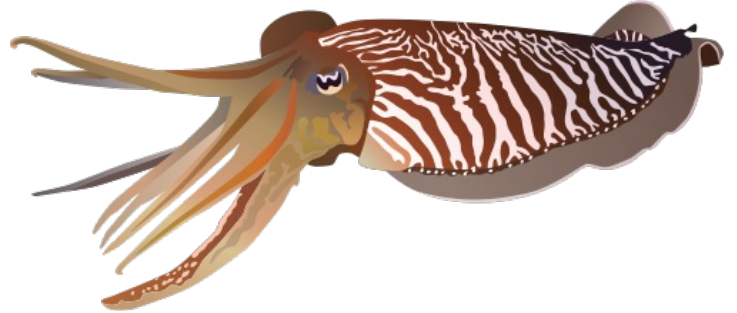


Image Credit:
Tracey Saxby, Integration and Application
Network (ian.umces.edu/media-library)

NATIONAL
MUSEUM of
**NATURAL
HISTORY**
© Smithsonian

Cownose Ray

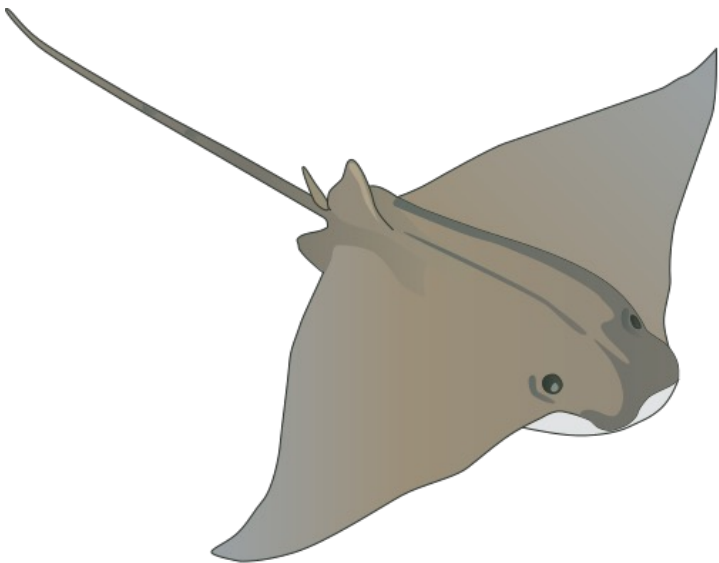


Image Credit:
Tracey Saxby, Integration and Application
Network (ian.umces.edu/media-library)

NATIONAL
MUSEUM of
**NATURAL
HISTORY**
© Smithsonian

Western Grey Kangaroo



Image Credit:
Tracey Saxby, Integration and Application
Network (ian.umces.edu/media-library)

NATIONAL
MUSEUM of
**NATURAL
HISTORY**
© Smithsonian

Hereford Steer

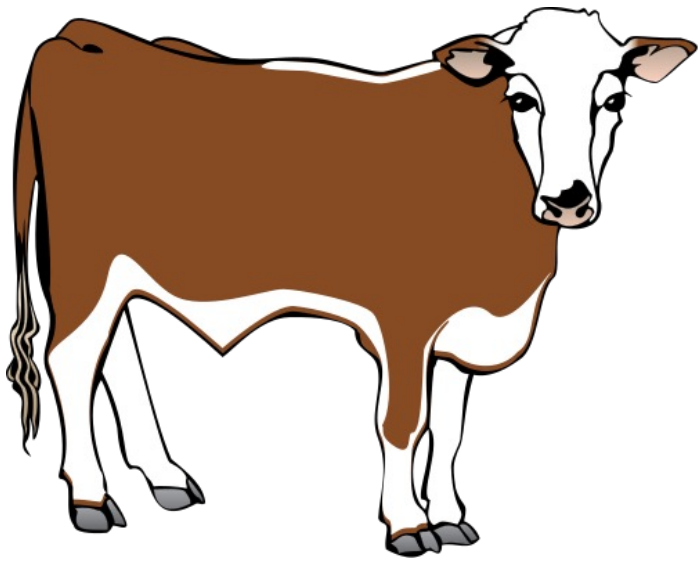


Image Credit:
Jane Hawkey, Integration and Application
Network (ian.umces.edu/media-library)

NATIONAL
MUSEUM of
**NATURAL
HISTORY**
© Smithsonian

Sea Otter



Image Credit:
Tracey Saxby, Integration and Application
Network (ian.umces.edu/media-library)

NATIONAL
MUSEUM of
**NATURAL
HISTORY**
© Smithsonian

Humpback Whale



Image Credit: Tracey Saxby, Integration and Application Network (ian.umces.edu/media-library)

NATIONAL
MUSEUM of
**NATURAL
HISTORY**
© Smithsonian

Orca



Image Credit: Jane Hawkey, Integration and Application Network (ian.umces.edu/media-library)

NATIONAL
MUSEUM of
**NATURAL
HISTORY**
© Smithsonian

Whale Shark

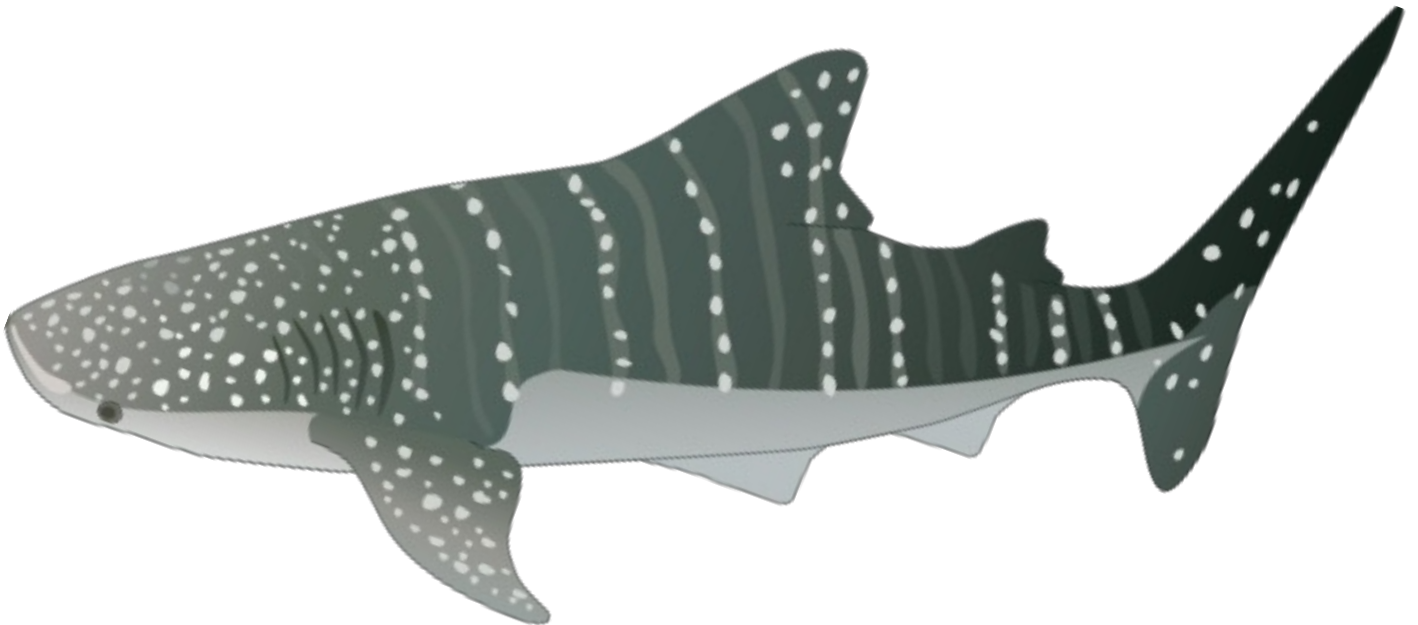


Image Credit: Tracey Saxby, Integration and Application Network (ian.umces.edu/media-library)

NATIONAL
MUSEUM of
**NATURAL
HISTORY**
© Smithsonian

Lined Seahorse



Image Credit:
Jane Thomas, Integration and Application
Network (ian.umces.edu/media-library)

NATIONAL
MUSEUM of
**NATURAL
HISTORY**
© Smithsonian

Jellyfish

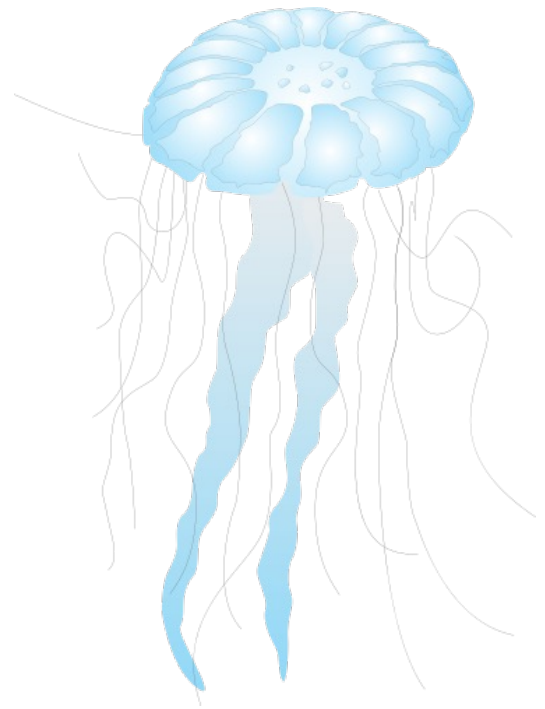


Image Credit:
Tracey Saxby, Integration and Application
Network (ian.umces.edu/media-library)

NATIONAL
MUSEUM of
**NATURAL
HISTORY**
© Smithsonian

Right Whale

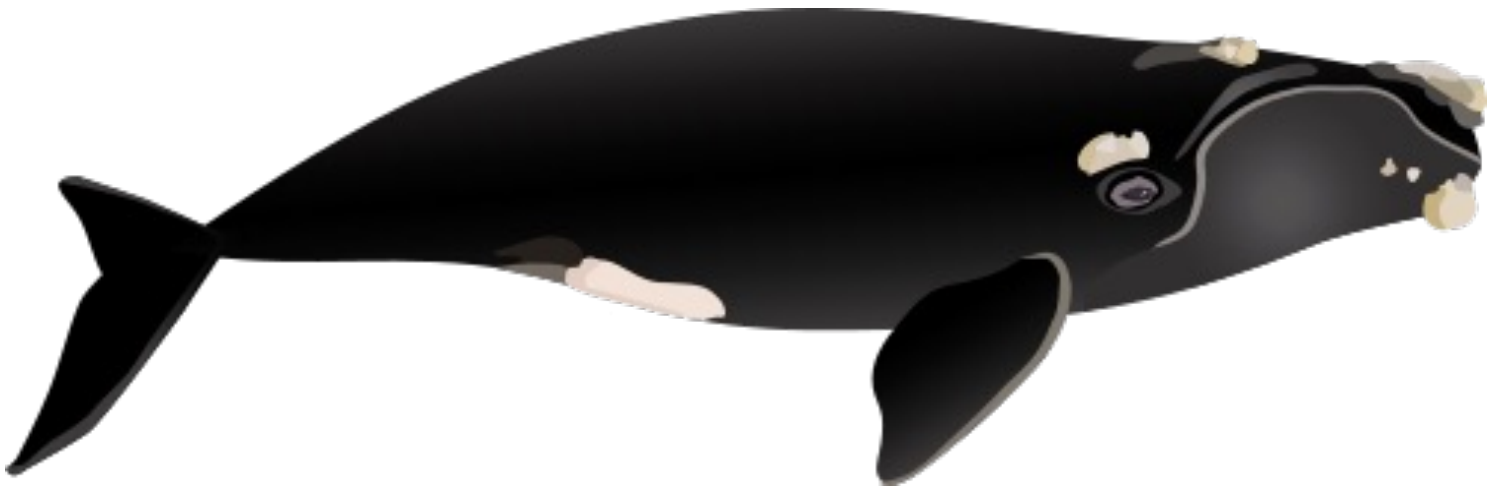


Image Credit: Tracey Saxby, Integration and Application Network (ian.umces.edu/media-library)

NATIONAL
MUSEUM of
**NATURAL
HISTORY**
© Smithsonian

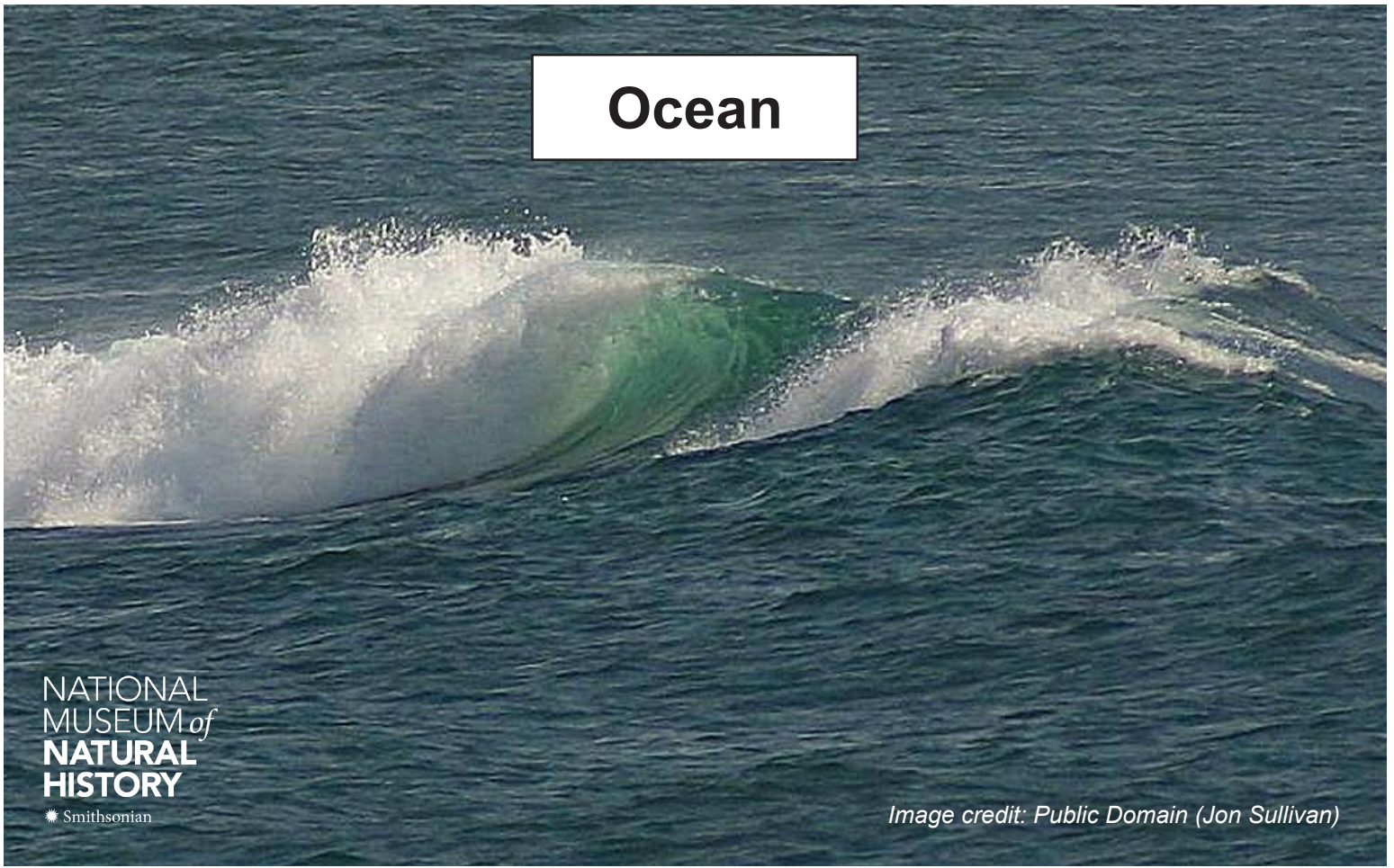


Land

NATIONAL
MUSEUM of
NATURAL
HISTORY

Smithsonian

Image credit: Public Domain



Ocean

NATIONAL
MUSEUM of
NATURAL
HISTORY

Smithsonian

Image credit: Public Domain (Jon Sullivan)