

How Do Right Whales Eat?

Background

There are two main groups of whales – those that have teeth and those that have baleen. **Baleen** is a structure that helps whales strain their food from the water. It is made out of keratin, which is the same protein humans have in hair and fingernails! Among the 14 species of whale that have baleen, there are a few different methods that they use to catch their food. Gray whales have short, coarse baleen which allows them to feed on small marine animals hidden in the ocean's muddy bottom. Humpback whales, on the other hand, use a gulp feeding method. Right whales, in comparison, use a technique called **skim feeding**, which we will learn about in this activity.

Credit: Center for Coastal Studies



Right whales have baleen plates that are long (up to 8 feet!) and fine (think horse hair) which allows them to feed near the water's surface on small zooplankton called **copepods** (like Sheldon Plankton from Spongebob!). They move slowly through the water with their mouths open, allowing food and water to pass through their baleen as they move. Whales cannot drink too much saltwater, or else they will become dehydrated just like humans. The final step in the straining process is to push the water back out of their mouths while the copepods are collected on the baleen and ready to be swallowed by the whale. This method is so effective that right **whales can eat over a ton (2,000 lbs) of copepods a day** - an amazing fact considering each copepod is no bigger than a grain of rice! On the left is a picture of a copepod taken under a microscope.



[Click here](#) watch a video of a right whale feeding.

North Atlantic Right Whale Consortium Education Committee.

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Activity Objective

This activity will simulate how the right whale's baleen helps them strain their food from the water.

Materials

- Clear plastic bin (about the size of a dish pan) or aluminum baking pan
- Water
- Dried rosemary or parsley
- Comb
- Open glass or jar (optional)



Activity

1. Fill your bin or pan with water (this represents the ocean).
2. Sprinkle in the rosemary (this represents copepods-right whales' primary food source).
3. The comb represents the whale's baleen, and if you choose to use a glass or jar, imagine this is the whale's open mouth. Hold the comb at the top of the opening of the glass so that the teeth of the comb cover the opening of the glass.
4. Move the jar through the water so the rosemary sticks to the teeth of the comb as you move it. This is how skim feeding works! The baleen collects the copepods while the water filters through.



Wrap Up

As you complete this activity, start to think about...

How does feeding like this fill the whale's mouth with food and also water?

Where does the water go?

How does the whale get rid of the water and not the food?

Does this type of feeding style pose a risk to the whales? Why or why not?

How do you think a whale stays hydrated?

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