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FROM: Dave Weller

To: Virtual Team Leaders and Science Team

Subject: Gray Whale Diet

Dear Virtual Team Members!

Gray whales eat a wide range of tiny invertebrates (animals without backbones). One of their favorite foods are amphipods (see photo).

The amphipods gray whales eat are found in dense colonies in shallow shelf or coastal waters during the summer. In some areas, gray whales also eat on locally abundant swarming animals such as shrimp, crab larvae, and fish eggs.

Gray whales are baleen whales. That means the have baleen, not teeth. The baleen plates hang from their upper jaw. The baleen traps food inside the mouth. The water is pushed out between the plates. Baleen is made of the same material as your hair or nails.

You've probably seen photos or videos of humpback whales, another kind of baleen whale, feeding at the surface, lunging out of the water with their giant mouths wide open or water rushing out between the baleen plates. (see photo)

Gray whales feed differently. Gray whales usually eat alone or in small groups. They often find their food on or near the ocean floor. Did you know that gray whales are primarily "suction-feeders." Muscles in the throat work in combination with the tongue in a piston-like action. That creates the suction needed to suck or pull prey into the mouth.

When eating along the ocean floor, a gray whale typically rolls on to its right side with the head slightly above the bottom. It swims slowly, suctioning sediment (sand or mud and hidden food from ocean floor) into the side of its mouth. Of course, it traps the amphipods in the baleen and pushes the water and mud out between the baleen plates. When a gray whale eats, it stirs up quite a bit of sediment and makes it hard to get photographs. Here's a sky-high photo of a gray whale eating. Do you see the trail of mud it's leaving?

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Gray Whale Diet (continued)

How would you like to eat food off the floor like that?

How a baleen whale eats depends on the kind of whale. Humpback whales are lunge feeders. Right whales are skimmers. I have a couple questions for you. What do you think the difference is between a skimmer, a lunge feeder, and how gray whales hunt? Why do you think gray whales, right whales, and humpback whales hunt in different ways? If we removed the food for one of these baleen whales, do you think they could eat food like a different kind of baleen whale? Why or why not?

That is all for today virtual researchers. Tune in again tomorrow

Have Fun,

*Dr. Dave*Dr. David Weller, Research Wildlife Biologist
NOAA Fisheries, Southwest Fisheries Science Center
La Jolla, California
seamail@whaletimes.org