

Gray Whale Diet (Written 2007)

Even though we have krill to show visitors who are looking for gray whales on the Lighthouse observation deck, krill is actually not a major part of the gray whale's diet. Whales we might see here that do depend on krill are minke, blue, humpback and fin. Krill is a major dietary staple of blue whales, but minke, humpback and fin whales also eat small schooling fish in addition to krill.

So what do gray whales eat? Amphipods, which are very small crustaceans resembling shrimp, make up 90% of their diet. They find these amphipods in the mud at depths of about 200 feet in arctic waters, especially in the Bering Sea and the Chukchi Sea. Amphipods range in length from 1/4" to 1". Also found in that mud are isopods, gastropods, mollusks and worms, all of which grays eat. Sometimes grays will make two "passes" through the mud: the first time they will stir up the top layer of mud and allow the heavier sand and inedibles they don't like to settle, then the second "pass" will be to engulf a mouthful to ingest. Adults gray whales can feed for 5 months or more, from June through October, eating a ton or more of these foods in a day. They feed for up to 20 hours a day.

These amphipods that the gray whales prefer are temperature dependent. When the sea surface temperatures are higher, there is a decline in the number of amphipods. This may have a significant effect on the gray whales; for example, there was a marked decline in amphipods in the 1990's, and a large number of gray whales appeared emaciated. There was also a higher mortality rate of grays in 1998 and 1999. It is thought the decline of amphipods affected the gray whales.

But not all grays go to the arctic feeding grounds. For example, each year some stay in Baja, a few stay in the Gulf of the Farallons, a few dozen can regularly be seen along the Oregon Coast, and 35-50 return year after year off Vancouver Island. And even though grays are bottom feeders at heart, they actually eat a wide diversity of prey, and they can feed on the sea floor, in mid water columns, and at the ocean's surface. Some of the other foods they eat in these other areas are ghost shrimp, mysid shrimp, floating plankton, spawning squid, schools of anchovies, herring roe, and crab larvae. In the spring they will eat swarms of krill when they find it. Sometimes they also scrape small crustaceans off kelp and eelgrass, and sometimes they will eat the eelgrass itself. And it has also been discovered that gray whales do not eat only during the summer and fall; they will occasionally feed opportunistically during their migration and while in Baja.

It has been suggested that perhaps the flexibility of gray whales and the variety of foods in their diet has led to their populations rebounding more successfully than the populations of the other large whales that were once hunted.

Sources:

Eye of the Whale by Dick Russell

Gray Whales, Wandering Giants by Robert H. Busch

Gray Whales by Jim Darling

