

Humpback Whale Feeding Behaviors

Humpback whales are baleen whales that are specially adapted to gulp vast quantities of concentrated food and water. Their mouths open especially wide, creating a huge area in which to capture prey. And, their throats are pleated to greatly expand with each gulp of tons of water and feed. The pleats then contract to expel the water through hundreds of plates of baleen, which function as a sieve to capture the small fish and invertebrates such as krill and plankton.



Chirs Cutler/NOAA Southwest Fisheries Science Center

Humpback whales usually feed beneath the surface of the water, finding groups of prey and gulping them down. However, some dynamic feeding behaviors may be observed at the surface.



When **lunge feeding**, a humpback propels itself rapidly through a concentrated ball or group of fish or krill with its mouth wide open. During vertical lunges a whale's head may rise almost straight up out of the water.

Bubblenet feeding is a cooperative feeding behavior that was first documented in Alaska. A school of fish, such as herring, is corralled into a tight ball. One or more whales dive beneath the school, rising in a spiral circle while blowing bubbles. The bubbles rise through the water column as a kind of disorienting curtain surrounding and confining the school of fish. As this ring of bubbles reaches the surface, the group of whales lunges up through



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the prey, gulping tons of food and water. Researchers have observed that this behavior is carefully choreographed; each whale rises in the same position relative to others.

Whale Behaviors

Behaviors described here for humpback whales may also be observed in other cetaceans, including killer whales.



Blow or Spout On average, adult humpbacks take a breath every 10 to 15 minutes, but they can remain under water for as long as 45 minutes. Young whales, called calves, must rise to the surface every three to five minutes. A puff of white vapor is formed when exhaled air expands and condenses.



Dive When humpback whales are staying close to the surface, their tail typically stays close to the surface when they dive and the bottom side of the tail or fluke is not visible. When the fluke is straight is up and the bottom clearly visible, the whale is typically going for a deeper, longer dive.



Pec Slap The humpback's pectoral fin is longer than that of all other species of whale, measuring one-third the whale's body length, or approximately 12 to 15 feet. Humpbacks will often roll onto their side or back and slowly slap the water's surface with one or both fins simultaneously. The slapping of fins may serve as a communication signal to other whales.



Spy Hopping Sometimes a whale rises vertically, rather slowly, putting its head out of the water. Some believe this behavior allows the whale to get a better look at activity going on above the surface.



Breach A breach is a powerful acrobatic display where the humpback launches itself out of the water. With just a few pumps of its tail, the humpback can propel its entire body into the air, landing back onto the surface with a resounding splash. The purpose of this spectacular behavior is still unclear. Some suggest it allows the whale to dislodge barnacles and other parasites from its body, serves as a form of communication, or maybe is just a form of playful activity.