

How Do Park Biologists Learn About Whales?

Since 1985, Glacier Bay National Park biologists have collected data on humpback whale numbers, distribution, reproduction and feeding. The Park uses this data to evaluate management actions and to increase biological knowledge about this endangered species. Here's how:

- ★ In June, July and August, 1-2 researchers in a small motorboat look for humpbacks throughout Glacier Bay and in Icy Strait.
- ★ When a group of whales is sighted, photos are taken of each whale's flukes (tail) as it dives. The sighting location is determined with a GPS (Global Positioning System) and water depth, temperature, feeding behavior and type of prey are also noted.
- ★ Markings on a whale's flukes are stable and unique like a fingerprint (see examples on cover). After the photos are developed, each whale can be identified by comparing its fluke photo to those of whales already identified.

Why and How are Whale Populations Protected?

- ★ Prior to intensive 20th century whaling, it is estimated that more than 125,000 humpbacks roamed the oceans of this planet. Commercial whaling decimated populations, however, leaving the species at only 10% of its previous abundance. Today, populations are increasing at varying rates, with an estimated 6,000 humpback whales in the North Pacific population.
- ★ Humpback whales are "endangered", meaning they are believed to be at risk of extinction. They are protected by the Endangered Species Act and the Marine Mammal Protection Act, which prohibit hurting, killing, or harassing a whale. Harassment is defined as any activity that changes a whale's natural behavior, including: rapid diving, breaching or simply leaving. Researchers have often observed whale behavioral changes in the presence of vessels, including kayaks! Whales are sensitive to the underwater noise of vessel engines and propellers. Repeated disturbance could be detrimental to Alaskan humpbacks, who must feed enough during the summer to sustain them through their 3,000 mile roundtrip migration to and from Hawaii. Whale/vessel collisions are another potential threat to both parties.

How does Glacier Bay National Park Protect Whales?

To prevent collisions and maintain a safe, harassment-free feeding area for endangered humpback whales, we ask that all visitors adhere to these protective regulations:

- ★ **Vessels must stay at least ¼ mile from whales.** The farther away a vessel is, the less likely it is to disturb the whale or collide with it. If you accidentally find your vessel within ¼ mile of a whale, simply slow to 10 knots and steadily head away from the whale.
- ★ **Pursuit of whales is prohibited.** Pursuing whales not only disrupts their feeding, it can waste their vital energy on attempted escape. A boat that is less than ½ mile from a whale and *changes course or speed to maintain or decrease its distance from the whale* is "pursuing" the whale according to Park regulations.

Whale Waters:

- ★ **May 15-Aug 31: 20 knot (sometimes 10 knot) speed limit in the lower Bay.** The greatest number of whales occur in lower Glacier Bay (see map). The goal of the speed restriction is to prevent boats from coming upon whales too quickly, and to prevent collisions. A slower boat also generates less underwater noise. At times of high whale densities, the speed limit may be dropped to 10 knots. *Check with a Park Ranger for the latest!!*
- ★ **May 15-Aug.31: Boats 18 feet or longer (unless powered solely by sail or paddle, or actively fishing) must stay mid-channel or 1 mile offshore in the lower Bay.** Humpbacks usually feed within a mile of the shore (see map). By staying in mid-channel, people in vessels can view feeding humpbacks without disturbing them. Of course, if a whale happens to be mid-channel, a vessel should alter its course to stay ¼ mile away. Boats can go to shore by heading straight in from mid-channel, still avoiding whales.
- ★ **June 1-Aug.31: Motorboats (unless shorter than 18 feet or actively fishing) must stay mid-channel or 1 mile offshore at the entrance of the East Arm, and in Whidbey and Russell Passages.** Vessels will cause the least disturbance by traveling mid-channel through these other important whale feeding areas (see map).

Humpback Whale Facts:

Size:

- ★ Females: Average 49 feet, 35 tons
- ★ Males: Average 46 feet, 25 tons
- ★ At birth: 14 feet, 2 tons

Natural History:

- ★ Feed in high latitudes in spring through fall only
- ★ Migrate to tropical waters to breed in winter
- ★ Sexually mature at 4-7 years
- ★ May live 50 years or longer
- ★ Mature females are nearly always pregnant or nursing
 - give birth every 2 years on average
 - 11 month gestation and lactation lasts 10 months.
- ★ Males repeatedly sing 10-15 minute long, complex, continually changing songs during breeding season

Food Habits:

- ★ Do not eat during winter breeding season
- ★ Eat primarily "krill" & small schooling fish
- ★ Filter their prey through baleen plates in mouth
- ★ Consume about 1 ton of food per day
- ★ Feed mostly below the water's surface but can also **lunge feed** - lunging through dense prey with mouth wide open or **bubblenet feed** - blowing a ring of bubbles from below to surround prey and then chasing prey to the surface and engulfing them.

Humpback Whales in Glacier Bay:

Numbers:

- ★ Since 1974, 263 individuals have been identified.
- ★ Each year, 15-63 whales are identified.

Migration:

- ★ Most southeastern Alaska humpbacks winter in Hawaii, but some migrate to Mexico.
- ★ Many whales return to the Glacier Bay area every year, and some have sighting histories that span more than 24 years!

Feeding:

- ★ Humpback whales eat a whole years supply of food in their 5-8 month stay in Glacier Bay and surrounding waters.
- ★ Mainly eat small fish: herring, capelin, and sandlance
- ★ Individuals often return to the same specific area of Glacier Bay year after year to feed.
- ★ Some form stable feeding groups, and use 'feeding calls' distinct to their group.

Q. What do I do if a whale is heading toward my boat?

Slow your boat (avoid using reverse), assess the whale's direct line of travel and try to move out of its way, maintaining a ¼ mile distance. If you are in a kayak or motorboat with its engine off, you may want to tap on your hull to alert the whale to your presence. Do not depend on the whale to avoid you. Although they have very good hearing, they may not always be aware of their surroundings when feeding.

Q. Do boats really bother whales that much?

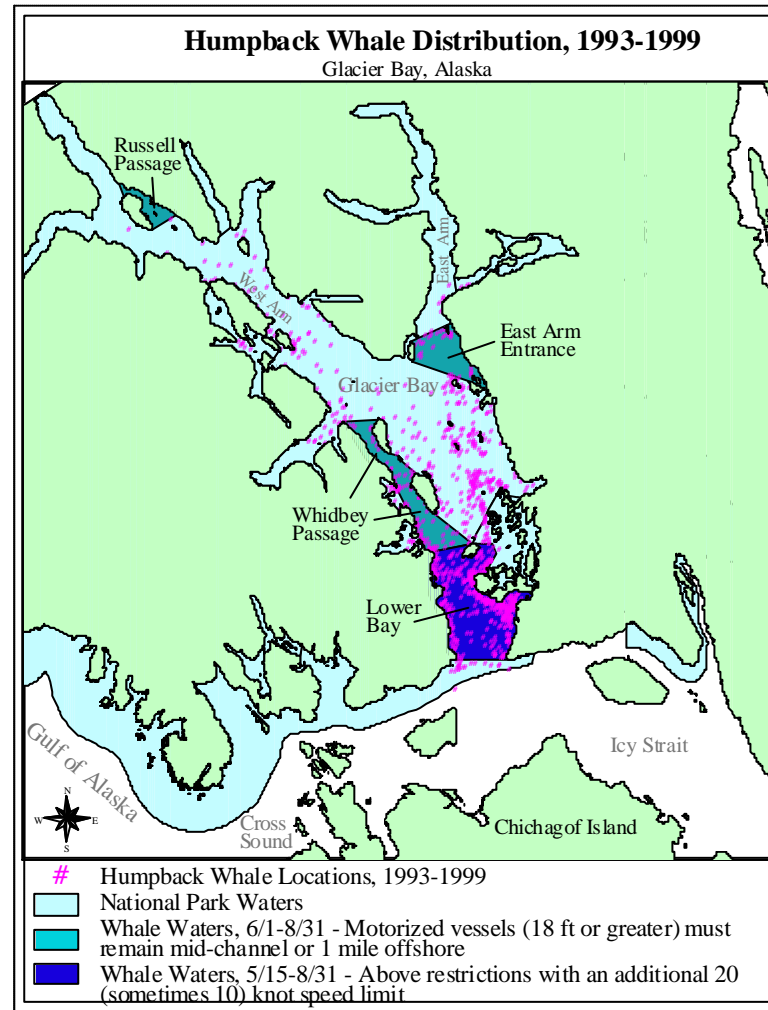
Consider how you might feel if a motorcycle drove repeatedly around your dining room table while you were sitting down at dinner. How long would you remain at the table? If this occurred every night, would you continue to return to your dining room? Your answers may be similar to how a whale feels when approached by vessels. Silent boats such as kayaks, sailboats and drifting motorboats have the potential to startle whales because whales may not detect these vessels until they are alarmingly close. Vessels can and do cause whales to leave their feeding areas temporarily. A whale that is disturbed repeatedly may waste energy avoiding boats, and not have sufficient time left to feed during the brief summer season, possibly reducing its long-term survival and ability to reproduce.

Q. How can I watch and photograph whales without disturbing them?

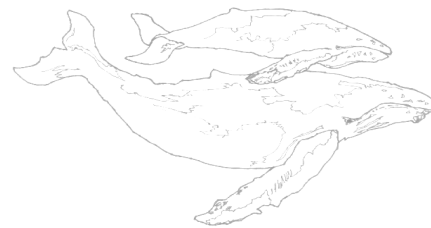
One of the best places to view whales without disturbing them is from the shore! You can also peacefully observe whales from an anchored or drifting boat (it is OK to anchor in Whale Waters), bearing in mind that illegal "pursuit" begins within 1/2 mile of a whale (see section on Park Regulations). If you are quiet and keep your distance, you may be able to watch and listen to humpback whales for hours.

Q. How can I find out more?

If you have questions about Park regulations, speak to a Ranger at the Bartlett Cove Visitor Information Station (697-2627 or KWM20 Bartlett Cove on VHF radio). If you have specific questions about whales, write to the Humpback Whale Monitoring Program, Glacier Bay National Park, PO Box 140, Gustavus, Alaska 99826, or call (907)-697-2230



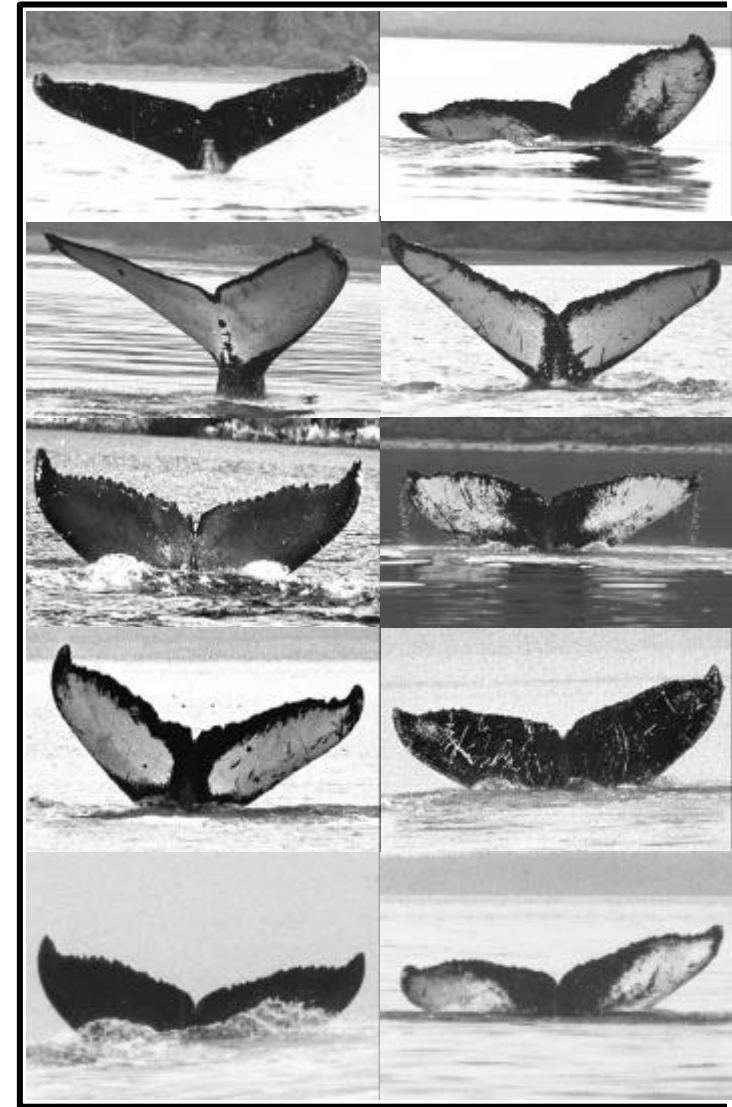
Answer to Question on Cover: The top and bottom photos on the right are the same whale.



Facts about whales on cover:

- ★ The 3 black-fluked whales on the left side represent 3 generations: top-Grandmother, middle-Mom, and bottom-her 1998 calf.
- ★ The middle fluke on the right side is the oldest known-aged whale in Glacier Bay. Researchers saw him as a calf in 1974 and named him Garfunkle.

Whale drawing by Kate Boesser



Can you find 2 pictures of the same whale? (answer on back)

Guide to Humpback Whales in Glacier Bay

For boaters, kayakers and whale enthusiasts