



Mammal Viewing Guide



This guide was created to enhance your experience while aboard one of our expeditions and to share with everyone the beauty and uniqueness of the place we have the privilege to call home. We do what we love and we love to share the bliss and exhilaration we experience on every expedition. We know that through witnessing as well as sharing this information about these animals serves to inspire people to protect, preserve and benefit this amazing ecosystem.



“Great Things Happen When You Combine Beauty With Passion”

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Whales

Whales belong to the scientific order Cetacea, which is divided into two groups: the Mysticetes (Baleen) and the Odontocetes (Toothed Whales). The Mysticetes, or baleen whales, are most of the whales that we find in our area. These whales don't have any teeth! Instead they have baleen plates made up of keratin, the same material that makes up our hair and fingernails. These plates hang down from their upper jaw and allow the whales to filter their prey (usually planktonic animals and small fish) from the seawater. This group consists of the gray, humpback, minke, and others. The Odontocetes, or toothed whales, use teeth to seize and capture their prey. Sperm whales, belugas and narwhals, all the beaked whales, and all the dolphins and porpoises all belong to this group.

Whales have evolved from land-living mammals. As such whales must breathe air regularly, although they can remain submerged under water for long periods of time. Some species such as the sperm whale can stay submerged for as much as 90 minutes. They have blowholes (modified nostrils) located on top of their heads, through which air is taken in and expelled. They are warm-blooded, and have a layer of fat, or blubber, under the skin. With streamlined fusiform bodies and two limbs that are modified into flippers, whales can travel at up to 20 knots, though they are not as flexible or agile as seals. Whales produce a great variety of vocalizations, notably the extended songs of the humpback whale. Although whales are widespread, most species prefer the colder waters of the Northern and Southern Hemispheres and migrate to the equator to give birth. Species such as humpbacks and blue whales can travel thousands of miles without feeding. Males typically mate with multiple females every year, but females only mate every two to three years. Calves are typically born in the spring and summer months and females bear all the responsibility for raising them. Mothers of some species fast and nurse their young for one to two years.

Once relentlessly hunted for their products, whales are now protected by international law. The North Atlantic right whales nearly became extinct in the twentieth century, with a population low of 450, and the North Pacific grey whale population is ranked Critically Endangered by the IUCN. Besides whaling, they also face threats from bycatch and marine pollution. The meat, blubber and baleen of whales have traditionally been used by indigenous peoples of the Arctic.

Baleen Whales (Mysticetes)





Humpback

(Megaptera novaeangliae)

Quick Facts

Weight - Up to 40 tons

Lifespan - About 80 to 90 years

Length - Up to 60 feet

Threats - Entanglement in fishing gear, Vessel strikes, Vessel-based harassment, Habitat impacts

Location - National, Foreign

About The Species

Humpback whales are mid-sized baleen whales that frequent our area in the summer months. They get their name “Humpback” from a small hump on their back located just in front of their small dorsal fin. These whales have a black body with white flippers (pectoral fins). These flippers are the longest of any whale, reaching up to 15 feet. This can be a third of the whale’s body length! The underside of the flukes (tail) vary in color from all white to all black with everything in between. These color patterns are unique to each whale and allow scientists to identify individuals and keep track of them. Humpbacks also have several bumps on their heads, called tubercles, each containing one hair. Scientists believe the whales use these hairs as a sensory device. They have anywhere from 270-400 baleen plates on each side of their mouth.

Most of the humpbacks we see in our area spend the winter months in the warm clear waters of Hawaii, an area that serves as their breeding and calving grounds. If a whale is not going to breed or calve they will stay here in the Sitka Sound area. Humpbacks give birth in the middle of winter to calves that weigh around a ton! These are big babies: they’re born anywhere between 13-15ft. long! They can gain as much as 100 pounds a day just by nursing on their mother’s milk! After migrating from the Hawaii, humpbacks make the Sitka Sound their first stop to break the fast of migration. This generally occurs between mid-March and Mid-April. They come here because of the abundance of the calorie rich herring that spawn at the same time. It is not uncommon to see in excess of 50 whales in an area as small as 2 sq. miles. This is also the best time to witness the amazing cooperative feeding behavior called bubble-net feeding.

The favorite of many whale watchers, humpbacks are known as the acrobats of the whale family for a variety of behaviors, some of which appear to be playful. Rolling, flipper slapping, tail lobbing, spy-hopping, and breaching are some examples of these behaviors.





Minke

(Balaenoptera acutorostrata)

Quick Facts

Weight - Up to 20,000 pounds

Lifespan - Up to 50 years

Length - About 35 feet

Threats - Whaling, Entanglement in fishing gear, Ocean noise, Habitat disturbance, Vessel strikes

Location - Alaska, New England/Mid-Atlantic, Pacific Islands, Southeast, West Coast

About The Species

Minke whales are the smallest of the baleen whales found in our region. Their body is dark gray on top and white underneath. They have a small, curved dorsal fin and they have small pectoral fins. These flippers are dark gray with a white band. When minke whales surface, they often come up at an angle, which usually means that their spout gets lost in the waves behind it. Minkes, therefore, get the nickname "little piked whale" because they often come up chin-first. Scientists find these whales difficult to study because they are frequently found alone, and they are very quick. Often one will pop up once and then disappear. However, they can be seen in small groups and in association with other larger whales, usually in an area with an abundance of food.

For a long time these whales were considered too small to hunt, but as the numbers of larger whales declined, whalers turned to these small whales. In fact, these whales continue to be hunted today by Japan, Norway, and Iceland.



Gray Whale

(Eschrichtius robustus)

Quick Facts

Weight - Approximately 90,000 pounds

Lifespan - Unknown

Length - 42 to 49 feet

Threats - Entanglement in fishing gear, Vessel strikes, Ocean noise, Disturbance from whale watching activities, Climate change

Location - Alaska, West Coast, Foreign

About The Species

The common name of the whale comes from the gray patches and white mottling on its dark skin.] Gray whales were once called devil fish because of their fighting behavior when hunted. The gray whale is the sole living species in the genus *Eschrichtius*, which in turn is the sole living genus in the family *Eschrichtiidae*. This mammal descended from filter-feeding whales that appeared at the beginning of the Oligocene, over 30 million years ago. The gray whale is distributed in an eastern North Pacific (North American) population and an endangered western North Pacific (Asian) population. North Atlantic populations were extirpated (perhaps by whaling) on the European coast before AD 500 and on the American coast around the late 17th to early 18th centuries. However, on May 8, 2010, a sighting of a gray whale was confirmed off the coast of Israel in the Mediterranean Sea, leading some scientists to think they might be repopulating old breeding grounds that have not been used for centuries. In 2013 a gray whale was sighted off the coast of Namibia – the first confirmed in the Southern Hemisphere. There are 20,000 and 22,000 individuals in the eastern Pacific traveling between the waters off northernmost Alaska and Baja California Sur. Mothers make this journey accompanied by their calves, usually hugging the shore in shallow kelp beds, and fight viciously to protect their young if they are attacked. We often see them in very shallow waters here from the end on March through May. Usually 1 or 2 stay in the Sitka Sound throughout the summer months.

Toothed Whales (Odontocetes)





Harbor Porpoise

(Phocoena phocoena)

Quick Facts

Weight - 135 to 170 pounds

Lifespan - About 24 years

Length - 5 to 5.5 feet

Threats - Entanglement, Ocean noise

Location - Alaska, New England/Mid-Atlantic, Southeast, West Coast

About The Species

The harbor porpoise is a little smaller than the other porpoises, The body is robust, and the animal is at its maximum girth just in front of its triangular dorsal fin. The beak is poorly demarcated. The flippers, dorsal fin, tail fin and back are a dark grey. The sides are a slightly speckled, lighter grey. The underside is much whiter, though there are usually grey stripes running along the throat from the underside of the body.

Harbor porpoises prefer temperate and subarctic waters. They inhabit fjords, bays, estuaries and harbors, hence their name. They feed mostly on small pelagic schooling fish, particularly herring, capelin, and sprat. They will, however, eat squid and crustaceans in certain places. A study published in 2016 showed that porpoises off the coast of Denmark were hunting 200 fish per hour during the day and up to 550 per hour at night, catching 90% of the fish they targeted.

Harbor porpoises tend to be solitary foragers, but they do sometimes hunt in packs and herd fish together. Young porpoises need to consume about 7% to 8% of their body weight each day to survive, which is approximately 15 pounds or 7 kilograms of fish. Significant predators of harbor porpoises include white sharks and killer whales (orcas).





Dall's Porpoise

(Phocoenoides dalli)

Quick Facts

Weight - Up to 440 pounds

Lifespan - 15 to 20 years

Length - 7 to 8 feet

Threats - Entanglement in fishing gear, Hunting, Habitat alteration, Contaminants, Ocean noise

Location - Alaska, West Coast

About The Species

Dall's porpoises are common in the North Pacific Ocean and can be found off the U.S. West Coast from California to the Bering Sea in Alaska. These porpoises are considered the fastest swimmers among small cetaceans, reaching speeds of 34 miles per hour over short distances. They are named for W.H. Dall, an American naturalist who collected the first specimen of this species.

A special characteristic of Dall's porpoises is their distinctive color pattern: a black body with a conspicuous white lateral patch on the left, right, and underside. They are often mistaken for baby killer whales, but unlike killer whales, their dorsal fins are triangle-shaped and they do not have eye patches or saddle patches. Dall's porpoises have a relatively small, triangular head with little or no beak and a thick, robust body. Their flippers are small, round, and located near the front of the body. The triangular dorsal fin is positioned in the middle of the back, and often angles forward. The tail stock and keel (where the caudal fin attaches to the body) are exaggerated and create a pronounced hump, which is large compared to other marine mammals. Adult males have a thicker tail stock and forward-projecting dorsal fin.

Dall's porpoises can dive up to 1,640 feet to feed on small schooling fish (e.g., anchovies, herring, and hake), mid- and deep-water fish (e.g., myctophids and smelts), cephalopods (e.g., squid and octopus), and occasionally crustaceans (e.g., crabs and shrimp). Feeding usually occurs at night when their prey migrates up toward the surface. They have 38 to 56 very small, spade-shaped teeth (about the size of a piece of grain or rice) on each jaw that are useful for grasping. Dall's porpoises are usually found in groups averaging between two and 12 individuals, but they have been occasionally seen in larger, loosely associated groups in the hundreds or even thousands of animals. As rapid, social swimmers, Dall's porpoises are also attracted to fast moving vessels and commonly bowride beside ships. They briskly surface while swimming, creating a "rooster tail" of water spray that is a unique characteristic of the species.





Pacific White-sided Dolphin

(Lagenorhynchus obliquidens)

Quick Facts

Weight - 300 to 400 pounds

Lifespan - 36 to 40 years

Length - 5.5 to 8 feet

Threats - Entanglement in fishing gear, Ocean noise

Location - Alaska, West Coast

About The Species

Pacific white-sided dolphins, known for the distinct coloring that give them their name, are a playful and highly social marine mammal. They are also sometimes known as the “hookfin porpoise” because of their large, curved dorsal fin, though they are not technically porpoises.

In the United States, Pacific white-sided dolphins live off the coasts of California, Oregon, Washington, and Alaska. They can be seen travelling in schools of thousands, but group sizes are usually between 10 and 100 animals. These extremely playful dolphins are often seen “bow riding” (swimming near the front part of a ship) and jumping, somersaulting, or even spinning in the air.

Pacific white-sided dolphins feed on a variety of prey, such as squid and small schooling fish (capelin, sardines, and herring). They can dive underwater for more than 6 minutes to feed. They have small conical teeth that help them catch and hold on to their prey; each tooth row contains 23 to 36 pairs of teeth. Instead of using their teeth to chew their food, dolphins use their teeth to grip food before swallowing it whole—head first—so the spines of the fish do not catch in their throats. Pacific white-sided dolphins often work together as a group to herd schools of fish. Each adult eats about 20 pounds of food a day

These dolphins have a robust body, short rostrum (snout), and large dorsal fin compared to their overall body size. Their back, fluke (tail), and lips are black; their sides, dorsal fin, and flippers are gray; and their belly is white. They have a white or light gray stripe along their sides that extends from the eye to the tail, sometimes referred to as "suspenders." Pacific white-sided dolphins are most likely to be confused with common dolphins and Dall's porpoises because they have similar large light-colored flank patches.



Sperm Whales

(Physeter macrocephalus)

Quick Facts

Weight - 15 tons (females) to 45 tons (males)

Lifespan - Up to 60 years

Length - 40 feet (females) to 52 feet (males)

Threats - Vessel strikes, Entanglement in fishing gear, Ocean noise, Marine debris, Climate change, Oil spills and contaminants

About The Species

Sperm whales are the largest of the toothed whales and have one of the widest global distributions of any marine mammal species. They are found in all deep oceans, from the equator to the edge of the pack ice in the Arctic and Antarctic. Sperm whales are mostly dark grey, though some whales have white patches on the belly. Sperm whales are the only living cetacean that has a single blowhole asymmetrically situated on the left side of the crown of the head. Their heads are extremely large, accounting for about one-third of total body length. They are named after the waxy substance, spermaceti, found in their heads. Spermaceti was used in oil lamps, lubricants, and candles. Sperm whales were a prime target of the commercial whaling industry from 1800 to 1987. Whaling greatly reduced the sperm whale population. Whaling is no longer a major threat and its population is still recovering. Sperm whales hunt for food during deep dives that routinely reach depths of 2,000 feet and can last for 45 minutes. They are capable of diving to depths of over 10,000 feet for over 60 minutes. After long, deep dives, individuals come to the surface to breathe and recover for approximately nine minutes. Sperm whales have been documented to remove fish from longline gear, a behavior known as “depredation.” They do this by using their long jaw to create tension on the line, which snaps fish off the hooks. In addition, scientists think that this behavior may be learned between individuals. Depredation sometimes results in injury or entanglement..



Killer Whales

(Orcinus orca)

Quick Facts

Weight - Up to 11 tons

Lifespan - 30 to 90 years

Length - Up to 32 feet

Threats - Food limitations, Entanglement, Chemical contaminants, Disturbance from vessel traffic and noise, Oil spills

Location - Alaska, New England/Mid-Atlantic, Pacific Islands, Southeast, West Coast

About The Species

Killer whales are one of the most recognized of all the whale. Scientific studies have revealed many different populations with several distinct ecotypes (or forms) of killer whales worldwide—some of which may be different species or subspecies. See Attached eco Killer whales, often referred to as “Orcas,” are, in fact, the largest member of the dolphin family. They have a very robust body, large rounded flippers, and a small beak. Their bodies are mostly black, with a white belly, white patches behind the eyes, and a light gray to white patch behind the dorsal fin. A male’s dorsal fin is tall and triangular and can reach up to 6 feet tall. A female’s dorsal fin is much shorter and curved. Killer whales have 10-14 pairs of large teeth, which they use to eat a wide variety of prey. These whales have been known to feed on small schooling fish, squid, seals, and even large baleen whales and sperm whales. Killer whales rely on underwater sound to feed, communicate, and navigate. Pod members communicate with each other through clicks, whistles, and pulsed calls. Each pod in the eastern North Pacific possesses a unique set of calls that are learned and culturally transmitted among individuals. These calls maintain group cohesion and serve as family badges.

Although the diet of killer whales depends to some extent on what is available where they live, it is primarily determined by the culture (i.e., learned hunting tactics) for each ecotype of killer whale. For example, one ecotype of killer whales in the U.S. Pacific Northwest (called Residents) exclusively eats fish, mainly salmon, and another ecotype in the same area (Transients, or Bigg’s killer whales) primarily eats marine mammals and squid.

Killer whales often use a coordinated hunting strategy and work as a team to catch prey. They are considered a top predator, eating near the top of the food chain.