

Threats to Dolphins

Marine debris is the leading killer of all marine mammals. Discarded nets or line may entangle and drown dolphins. Dolphins are also known to mistakenly eat marine debris, that they mistake for food, which can result in illness or death.

Fisheries bycatch is another major threat to dolphins, particularly spotted and spinner dolphins that are often found in association with schools of tuna in the eastern tropical Pacific. Thousands of dolphins are unintentionally caught and drown in purse-seine, drift and gill nets each year.

Dolphin drive hunts occur in Japan, the Faroe Islands, Solomon Islands and Peru. Fishermen use boats and metal rods to drive dolphins into an enclosed bay, trap them with nets and then brutally kill them for their meat.

Global warming and pollution threaten to reduce populations of small fish that dolphins rely upon for food. Also, invisible contaminants leaching into the water, such as brominated or chlorinated hydrocarbons, can accumulate in dolphin fatty tissues and cause several health issues or undermine reproductive organs.

Vessel collisions are another threat, especially in areas where very large vessels are traveling fast. Pacific Whale Foundation urges all boaters to follow the "Be Dolphin Wise" guidelines to prevent collisions with dolphins and other marine life.

Acoustic harassment by the use of low-frequency sonar as part of military operations can also cause disturbances to dolphins.

Swimming with dolphins can disturb natural behaviors, especially in Hawai'i where spinner dolphins come to rest in protected sandy bays where the water is shallow.

Learn How You Can Make a Difference:

Visit www.pacificwhale.org

Pacific Whale Foundation is a non-profit, tax-exempt IRS 501(c)(3) organization. We have studied dolphins in Hawai'i and throughout the Pacific for over 32 years.



PACIFIC WHALE
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Protecting our oceans through science and advocacy

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HAWAI'I WILDLIFE WATCHING GUIDE



Dolphins

Hawai'i's Dolphins

Dolphin Societies

Dolphins are not fish, but air-breathing, warm-blooded mammals that nurse their young. Dolphins, of the family Delphindae, are part of the larger suborder Odontocete meaning "toothed whales." Dolphins have these characteristics in common:

- Cone-shaped teeth
- A single blowhole on top of their head
- A fatty organ in the front of the head, known as a melon, which is used for echolocation.

In Hawaiian waters, 12 different species of dolphins have been sighted, but some are rare or live in deeper water. We know very little about most dolphin species in Hawai'i. However, these animals grace Hawaiian waters with their presence every day of the year.



Although there are "dolphin typical" behaviors, dolphin societies vary quite a bit depending on the species. We know little about most species and what we know about dolphins is restricted to the few species that have been studied in detail. In Hawai'i, there has been minimal research effort on most dolphins. We know most about Spinner dolphins, Spotted dolphins and Bottlenose dolphins because they are the most common species found here in Hawai'i.

Spinner dolphins travel in large groups containing hundreds of dolphins, while feeding offshore at night. They split into much smaller groups during the day to rest and socialize in protected inshore bays and lagoons.

Spotted dolphins associate in very large groups (hundreds or thousands of dolphins) that are made up of smaller, more stable sub-groups. These sub-groups are formed on the basis of sex and age and either contain adult males only or adult females with young or juveniles of both sexes. Although group membership is fluid, male subgroups are more stable than those of females.

Bottlenose dolphin groups vary dramatically in size, with smaller groups (1-20 dolphins) occurring in bays and large groups offshore. Groups are typically sexually segregated.

Adult males form long-term stable alliances with one or two other males whereas females associate in less stable groups often containing female relatives.

Other dolphin species found in Hawaiian waters include: melon-headed whale, pygmy killer whale, killer whale, striped dolphin, short-beaked common dolphin and Risso's dolphin.

Enjoy, Respect and Protect Wild Dolphins

In the United States, it is illegal to harm or harass wild dolphins. Harassment is defined by the National Marine Fisheries Service (NMFS) as any act of pursuit, torment or annoyance which has the potential to injure an animal in the wild or to disturb it by causing a change in behavior. This means that intentionally approaching a dolphin with a boat or swimming close enough to change its behavior is a federal offense. For this reason, it is recommended that people observe dolphins from a safe and respectful distance both from on-board a vessel or while swimming, and avoid approaching dolphins closer than 50 yards as per NMFS Guidelines.

In Hawai'i, spinner dolphins are particularly sensitive to disturbance when they come close to shore to rest in sheltered sandy bottom bays or coastlines. Because they are resting, these dolphins swim slowly and spend time on the bottom. Driving a boat through a school, forcing dolphins to bow ride or swimming among them at close range are not only illegal behaviors, but they disturb the dolphins' rest, a time they use to recharge before going back to deeper waters to feed at night.

Dolphin Behaviors



Leaps

Dolphins engage in a variety of leaps. The most energetic one is the tail-over-head leap in which the dolphin propels its entire body above the water's surface, flips tail-over-head, and lands tail-first on its dorsal or back surface.



Spins

This behavior is unique to spinner dolphins. To execute a spin, a dolphin leaps out of the water in a vertical position and twists rapidly. Spins usually occur in a series. The function of spins is not fully understood but they may serve as a form of communication.

Tail Slaps

A dolphin slaps its tail flukes against the water surface while either in normal or inverted position. Tail slaps can occur in a series of up to 20 in a row. This behavior serves many social functions including communication of distress or as a way for a mom to recall a wandering calf.



Head/Back/Side Slaps

While traveling, dolphins sometimes raise the front half of their bodies out of the water and then slap their belly, back or side against the surface. This is another form of communication and may serve as a way for dolphins to observe visual cues above the water during fast swim.



Caressing

During social interactions, dolphins appear to reinforce social bonds by petting each other with their pectoral

fins or rubbing their bodies against each other. Other caressing behaviors include swimming belly-to-belly or gently raking each other with the teeth.



Spy Hops

This behavior consists of a dolphin raising its head straight out of the water and keeping it above the surface with the water just below eye level. This behavior lasts less than a minute and the dolphin ends it by slowly slipping back below the surface

in a vertical motion. The behavior may help the dolphin to scope the surroundings above the water, especially when vessels are close by.

Play

Dolphins are often seen swimming around while carrying inanimate objects. Seaweed or 'plastic bags are often tossed around and even passed back and forth between members of the group. Play in animals is a way of learning or practicing important skills.



Bow Riding

Dolphins are sometimes attracted to the pressure wave created by moving boats. It is likely that bow riding provides a more efficient way for dolphins to move through the water by allowing them faster speeds while consuming less energy.





Mating and Calving

Dolphins do not mate for life; instead, females mate with many males during their lifetime. Male bottlenose dolphins form alliances with each other to sequester females to mate with. Spinner and spotted dolphins travel in mixed-sex groups, therefore, males are able to mate with females within the confines of the larger group.

Calving occurs year-round, with the mothers acting as sole caregivers. Gestation is 10-12 months, after which the mother gives birth to a single offspring. Lactation requires a significant energy investment from the mother. Calves begin supplementing their diet with small fish at the age of 3-6 months. Weaning occurs when the mother conceives another calf, generally every 2-3 years.

Feeding

The preferred prey of dolphins includes fish (of varying sizes), cephalopods (e.g. squid and cuttlefish), and crustaceans. However, some types of killer whale can prey upon other dolphins, seals, sea lions and whales. Dolphins capture a single fish at a time and swallow it whole, head-first. Their teeth are used to grasp their prey, not chew.

Spinner dolphins feed primarily at night in deep, offshore waters (approximately 650-1000 feet below the surface). Spotted and bottlenose dolphins feed both day and night on prey found closer to the surface.

Dolphins are uniquely adapted to be able to locate prey (even when visibility is limited) using echolocation. Echolocation involves producing very high frequency sounds ("clicks"), which can be transmitted over long distances. When these sounds hit a fish or other object in the water, the echo returns to the transmitting dolphin and relays information about the location and nature of the object. Echolocation allows dolphins to create an acoustical picture or "map" of their environment using pulses of ultrasonic sound which bounce off objects.



Species Identification



Bottlenose Dolphin



Bottlenose Dolphin (*Tursiops truncatus*):

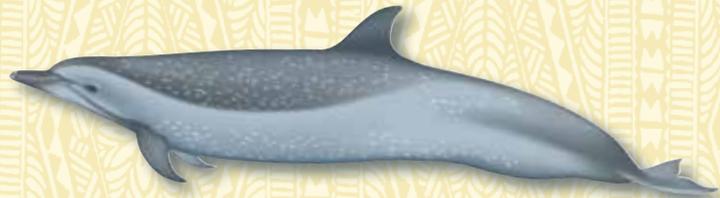
The best studied and most well-known of the cetaceans. Bottlenose dolphins will often "bowride" (swim off the bow) of a moving vessel.

Average Size: 7.5 to 12 feet in length; weigh 600-800 lbs.

Distinguishing characteristics: body and head are robust, with large curved dorsal fins. There is a relatively short beak with a distinct crease at the melon (forehead). Body coloration is dark gray on the dorsal area (back) and fades to a lighter gray on the belly.



Spotted Dolphin



Pantropical Spotted Dolphin (*Stenella attenuata*):

Known in Hawai'i for their high leaps above the surface and their tendency to bow-ride.

Average Size: 6 to 8.5 feet in length; weigh 200-250 lbs.

Distinguishing characteristics: slender body with tall curved dorsal fin. The beak is long and slender with a distinctive white tip. Body coloration is dark gray on the dorsal area with a lighter belly. Adults have varying degrees of spots on their backs. Calves are born spotless and acquire spots with age.



Spinner Dolphin



Spinner Dolphin (*Stenella longirostris*):

The most commonly seen of Hawai'i's dolphins and are well-known for their aerial acrobatic behaviors. They are also the smallest of Hawai'i's dolphins.

Average Size: 5.5 to 7.5 feet in length; weigh 150 lbs

Distinguishing characteristics: slender body with tall triangular dorsal fin. The melon (forehead) is relatively flat and the beak is long and slender with a dark tip. Body coloration is a distinct three-tone pattern with a dark gray dorsal area, light gray middle band, and whitish-pink belly.



Rough-toothed Dolphin

(*Steno bredanensis*): Dark purplish gray and average 8 feet in length and 300 lbs. in weight. Unlike other dolphins in Hawai'i, rough-toothed dolphins have a smooth sloping forehead with no "crease" between their melon (forehead) and beak. They are most commonly seen in small groups (approximately 10-20 dolphins) in offshore waters.



Short-finned Pilot Whale

(*Globicephala macrorhynchus*): Easily recognized by their bulbous heads and strongly curved, broad-based dorsal fins. They can weigh up to 4 tons and average 17-22 feet in length. They often travel in groups ranging from 15-50 individuals. While searching for food, these groups can be spread out in lines over a mile long. They are more commonly found in deeper water.



False Killer Whale (*Pseudorca crassidens*):

Is slender bodied with a rounded head. They can weigh up to two tons and range from 16-20 feet in length. They form groups of hundreds, but are most often seen in groups of 10-20. Hawai'i's near-shore population of false killer whales is genetically unique and insular. Studies indicate that this population may be on the brink of extinction.