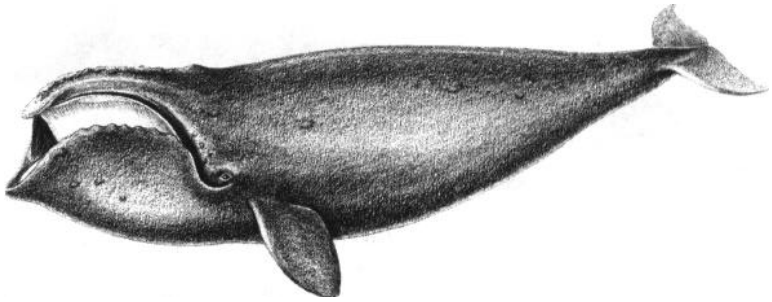


## NORTHERN RIGHT WHALE

*Eubalena glacialis*



This whale, and its relatives (other right whales and the bowhead) were formerly very numerous. They were slow-moving and easily caught; they lacked the belligerent qualities of the sperm whale; they yielded large amounts of oil and whalebone; and they floated when killed, which was a necessity in the days of small-boat killing. These things made them the "right" whales to catch, hence their name. Consequently, they were hunted almost to extinction, and are now given complete protection by international agreement.

The Northern right whale ranged formerly from the Bering Sea and Alaska to Baja California, being a winter visitor in the southern part of its range. Now it is rarely seen anywhere. Possibly it never was common in California and southward; certainly not by the time the whaling stations opened here in the 1850s. In 1975, the entire North Pacific population was estimated at about 220 individuals. Although perhaps fewer than a dozen have been seen or taken off California during the past 125 years, with full protection it may become more abundant, and is worth watching out for.

This whale reaches a length of 60 feet. It is usually black, but may show irregular white patches, especially on the underside. It has no dorsal or back fin, and no throat grooves. It is stocky-bodied, with a massive head, a horny excrescence on the front of the upper jaw (the "bonnet"), and a peculiarly-shaped, curved mouth opening. The spout is double or V-shaped, which distinguishes it from other kinds seen here, though the gray whale occasionally shows a faint double spout.

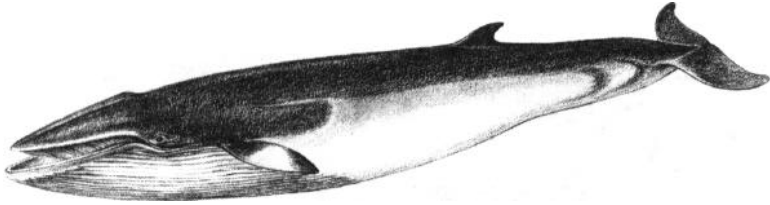
## FIN WHALES OR RORQUALS

Five members of this family are found in California waters. The four species of *Balaenoptera* are all long, slim, streamlined forms, while the humpback is stockier. All have small dorsal fins, set well back on the body, particularly so in the first four. Peculiar to this family are the very numerous and very long throat grooves, which extend in the blue, fin, and humpback whales to the midpoint of the body or beyond. There is a theory that these allow distension of the throat, thereby drawing a current of water, when the animals are feeding. They may also increase the animal's speed, by increasing its hydrodynamic efficiency.

These five whales are all found in both the Atlantic and Pacific Oceans, ranging in the latter from the Bering Sea southward. They are also found in the Antarctic, and in some cases in the Indian Ocean. The blue whale and the humpback are found as far south as Central America, the other three only to Baja California.

The fin whales were not taken by the old-type whalers, but now all are utilized to some extent.

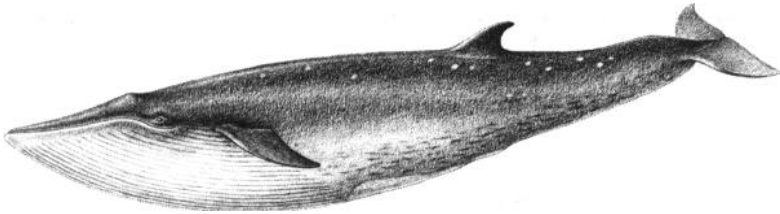
MINKE WHALE  
*Balaenoptera acutorostrata*



This is a smaller species than the others of its family, reaching only 33 feet. A 28- 1/2 foot female was said to weigh 5 tons. Newborn calves range from 7 to 9 feet in length. It is grayish-black above, white below, and has a prominent white band across the flipper. The small dorsal fin is markedly falcate (i.e. hooked or curved backward). This whale is not taken much by the larger whalers because of its small size; however, it is utilized in some countries for human and pet food.

In the eastern Pacific, minke whales are found from the Chukchi Sea to central Baja California, but they appear to be most common in Alaskan waters. In the winter months they range much farther south. There are no reliable population estimates for the eastern North Pacific stocks. They are rather slow swimmers, and frequently are seen as solitary animals near shore. They feed mainly on shrimp-like euphausiids but also take some small fishes.

SEI WHALE  
*Balaenoptera borealis*



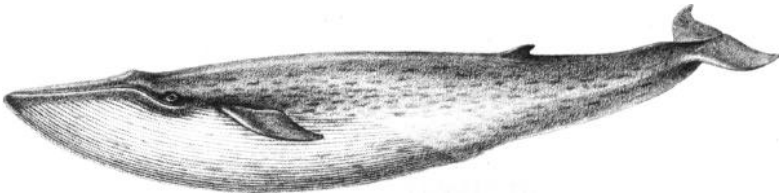
This is pronounced "say". The sei (also spelled sej or saithe) is the European pollack, a member of the cod family. The fish feeds on smaller fishes and on euphausiids and other pelagic crustaceans. Both the whale and the fish appear off the northernmost tip of Norway at the same time of year, both undoubtedly after the same food, hence the name of the whale. The whale usually travels in pods of 2 to 5 individuals.

This species reaches 50 feet in length. It is gray to bluish-gray above and on the posterior half of the undersurface, and white down the middle of the anterior half. It was never greatly sought by Pacific coast whalers because it is low in oil content. The North Pacific catch in 1975 was 504 animals from an estimated population of 9,000. Its peak population in the North Pacific has been estimated at 42,000 individuals. In Japan, it is widely used for human food. Individuals taken in central California had been feeding on anchovies, sardines, jack mackerel, shrimp-like euphausiids and copepods.

Gestation appears to last for about 1 year and calves nurse for 5 to 7 months.

## BLUE WHALE OR SULPHURBOTTOM

### *Balaenoptera musculus*



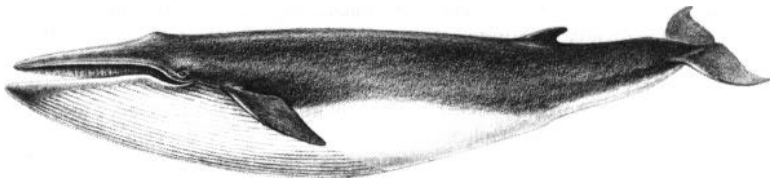
The largest of all the whales, and of all living or extinct animals, the blue whale reaches a length of about 100 feet and a weight of well over 100 tons. The longest well-authenticated record is for 98 feet, though there is a reported measurement of 111 feet. An 89-foot individual weighed 136.4 metric tons. It is a long, streamlined whale. Its color is bluish-gray with light blue mottling. The name "sulphurbottom" comes from the film of diatoms (minute one-celled or colonial plants) which sometimes cover individuals which have been in cold water for a long time. There is a very small dorsal fin, set far back. Blue whales taken in central California had shrimp-like euphausiids in their stomachs.

Many authorities believe that skull differences warrant this whale's being placed in a separate genus, *Sibbaldus*.

Gestation is thought to last 11 or 12 months. Newborn calves are about 23 feet long (estimated 5,700 pounds), and will reach 50 feet by the time they are weaned approximately 8 months later. Adults typically are found offshore either as individuals or in pods comprising 2 or 3 animals. The North Pacific population, once numbering about 5,000, now contains about 1,700 individuals, but may be increasing.

## FINBACK OR FIN WHALE

### *Balaenoptera physalus*



This whale is similar in build to the blue whale. It reaches a length of 76 feet. It is grayish-black above, white below. The dorsal fin is small and set far back, and is falcate. This is claimed to be the fastest of the large whales. However, with modern whaling vessels and gear, combined with the fact that it is the most numerous of the whalebone whales, it constitutes an important part of the modern whale catch. The finback whale is probably the commonest whale seen in summer off the California coast. Ones taken in central California had been feeding on anchovies and shrimp-like euphausiids.

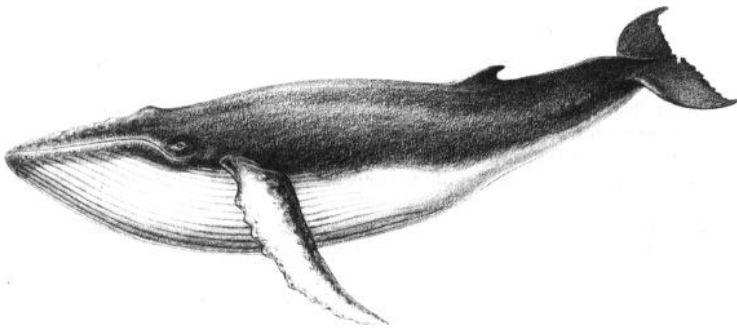
The finback whale is unique among mammals in having the right side of the head and lower jaw white, the left side all dark.

Gestation is said to last for 11 to 12 months, and the young are suckled for 6 to 8 months. Newborn calves are approximately 20 feet long and weigh about 2 tons.

The catch of finbacks in the North Pacific in 1975 was 504 animals from an estimated population of 17,000. The peak population in the North Pacific has been estimated as 44,000 animals. Finbacks usually travel in pods of 2 to 5 individuals.

## HUMPBACK WHALE

*Megaptera novaeangliae*



The humpback whale reaches 52 feet in length. It is a stockier form than the other fin whales found here, and differs from them - and indeed from all other whales - in having extremely long flippers, 1/4 to 1/3 the total length of the animal, knobbed on the anterior edges. Its top and sides are black, its undersurface white.

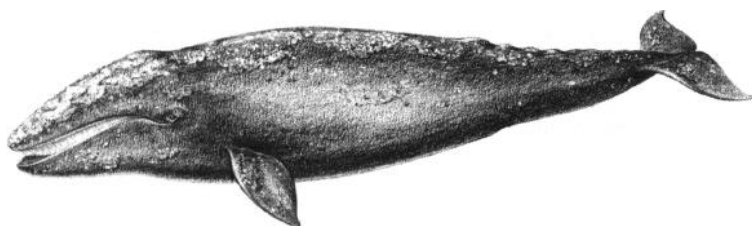
The whale is often found in coastal waters, even in bays. It frequently breeches, leaping clear of the water and partially spinning as it falls back with a mighty splash. Individuals taken in central California had anchovies and shrimp-like euphausiids in their stomachs.

The population of humpback whales in the North Pacific prior to 1905 is estimated at 15,000 animals. By 1965, their numbers had been reduced to about 1,000 so they were given complete protection. The present North Pacific population is estimated at between 850 and 2,500 individuals. Somewhat over 100 animals appear to winter off Baja California each year.

This whale has attracted a good deal of attention because of its "singing". While vocalization has been recorded from some other whales, that of the humpback seems to be unique. Its song is long and complicated, with a definite pattern, which is repeated. It may represent a simple kind of communication, different from briefer sounds made by many delphinids for communication and of course from clicks or other pulsing noises used by many delphinids for echolocation. What has given the humpback its particular fame is that its voice has been taped and issued as a record, "Songs of the Humpback Whale," which has been used as the background of a new symphony.

## GRAY WHALE

*Eschrichtius robustus*



This is the best known of the great whales in California, and the one most often seen. Gray whales feed in summer in the western Bering Sea and adjacent Arctic Ocean. In winter, particularly in December through February, they may be seen traveling south along the California coast in small groups, usually two to five, on their way to Mexico. There, in various of the bays and lagoons of Baja California and the mainland - especially Scammon Lagoon-the females have their calves and breed. In the spring, particularly in March and April, they travel north again along the coast. They travel fairly close to shore, often coming within a few hundred yards of some of the points, or even into the surf zone. A "whale-watch" was set up at Pt. Loma, near San Diego, for several years to get a count of the population, with people taking turns watching during the daylight hours of the main part of the run. The whales have become a great public attraction, and many people visit promontories such as Pt. Loma in hope of seeing some of them, and there are also boats which take out passengers to see migrating whales from Mission and San Diego Bays as well as from San Pedro, Marineland, and Redondo Beach.

These whales travel around 6,000 to 7,000 miles each way, and the trip takes 2-1/2 to 3 months. The distance is calculated to be 60 to 80 nautical miles per day, at a speed of 4 knots for a 15 to 20 hour day. Their top speed is about 10 knots. They frequently raise their heads out of water to look around and get their bearings. They are believed to find their way on the long migration by memory and vision.

The California gray whale once had a much larger population. Whaling off California and Baja California during the latter half of the 19th century reduced their numbers to the point where it was no longer profitable to hunt them. In the 1920's and 30's, whaling was resumed and their numbers again seriously reduced. In 1938, they were given complete protection by international treaty. Counts of migrating whales from the shore, plus counts made in the lagoons from the air, have shown an increase of 11 percent a year. By 1961 there were believed to be about 6,000 and by 1971 over 10,000.

The population in the middle of the 19th century was estimated at 30,000 by the famous whaling captain and writer, C.M. Scammon, but current researchers say the original population couldn't have been much more than 15,000. The present population in the eastern North Pacific is estimated to be about 11,000 to 12,000 animals. About 160 gray whales are killed per year in a Siberian subsistence fishery and fewer than 5 per year by American Eskimos.

In Korean waters, there is another population of gray whales, now believed to be at a very low point. The two populations do not seem to mingle.

Gray whales reach 35 to 50 feet in length and around 20 to 40 tons in weight. The calf is 16-17 feet long at birth. The whale is black, mottled with gray, and covered with barnacles and whitish scars. There is no dorsal fin, but there is a small but distinct ridge on the back, at about the location where a fin would be, followed by a series of bumps.

This is one of the baleen whales, feeding mainly on small crustaceans, though also to some extent on fish. Feeding takes place largely, it is believed, during the 4 months of the year spent in the north, though some feeding takes place during the 8 months spent in

migration and in the lagoons. It has been found that some whales do not complete the migration north to the Bering Sea and Arctic Ocean. Instead, they spend the summer loafing and feeding along the coast from the California Channel Islands northward.

This whale has also been known by the generic name of *Rhachianectes* and the specific names *glaucus* and *gibbosus*; the name *robustus* was applied to a subfossil found in Sweden that subsequently has proven to be identical to the living gray whale.

Early in 1971, the skeleton of a fossil gray whale was found at San Pedro, California, and excavated. It is believed to be around 150,000 to 200,000 years old, and may belong to the recent species. Almost complete except for the vertebrae of the posterior part of the body, which had been bulldozed away, it is the first such specimen to be found.

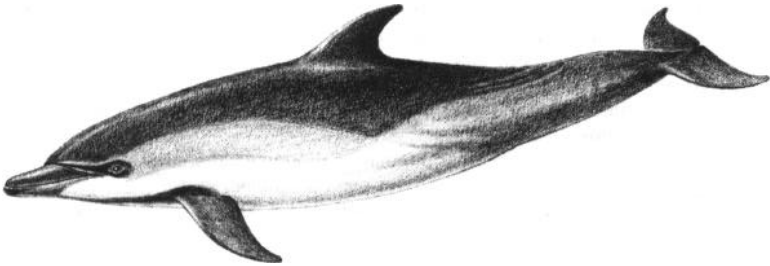
In 1964, the first baleen whale to be kept in captivity—a young gray whale—was harpooned off Baja California and brought to Sea World, in San Diego. It died as a result of the harpoon wound after about 2 months. On March 13, 1971, a second one was captured by use of a tail rope, in Scammon's Lagoon. This was a baby, assumed to have been born about January 5, 1971, and to have weighed 1,500 pounds at birth. At the time of arrival she was 18 feet 2 inches in length and weighed 4,150 pounds. A female, she was named "Gigi". She was fed a formula consisting of whipping cream, ground squid and bonito, cod liver oil, brewer's yeast, vitamins, corn oil, and water. This was fed through a tube inserted into her throat. Before many weeks she began taking squid from a trainer's hand, and by June 4 was observed taking squid from the bottom but would not eat squid floating on top of or suspended in the water. This checks with earlier reports that the gray whale is a bottom feeder by nature. Early June is about the time that some of the gray whales reach the Bering Sea, and thus may be a natural weaning time. The formula was still continued, however, in order to give her extra vitamins.

Meanwhile, Gigi was growing steadily. By May 29, she was 19 feet 10 inches in length and weighed 5,525 pounds. By September she was over 22 feet; by early November, 23 feet 1 inch and 6,300 pounds; by November 18, close to 25 feet and 7,600 pounds. She was eating over 1,000 pounds of food a day and gaining 60 pounds a day.

In addition to being a great public attraction, and I think as with other marine mammals kept in captivity arousing public interest and sympathy which should prove beneficial, these two whales have provided the opportunity to obtain a variety of physiological information. Gigi was released at sea on March 13, 1972, with a transmitter attached. Although the transmitter had been lost, Gigi was identified in San Ignacio Lagoon, Baja California, in January 1977.

## COMMON DOLPHIN

*Delphinus delphis*



To the California fisherman, this is the "white-belly" dolphin. It is a long-beaked form, rather strikingly marked and very beautifully shaped. Dolphins of this group have been depicted in art for thousands of years, and are among the most familiar to people because of their habit of running with ships and leaping out of the water.

The common dolphin ranges from British Columbia to Ecuador. While it sometimes occurs close to shore, it is probably more abundant offshore. It is one of the two most abundant species off southern California. The present population in the eastern Pacific Ocean is estimated at 1.4 million animals. The largest herds are seen from August to January. Group sizes decrease to 50-200 individuals in spring and summer, with movement offshore and northward.

This is a comparatively small dolphin, reaching 7 or possibly 8 feet, and is slim-bodied. It is fast-swimming; in the Atlantic it has been known to reach 18 knots. Its liking for running with a boat is such that it will even stop feeding to do this. While active and playful in the wild, it is quiet and timid and among the least playful in captivity. Its offshore habitat may be a factor in its poor adjustment to confinement.

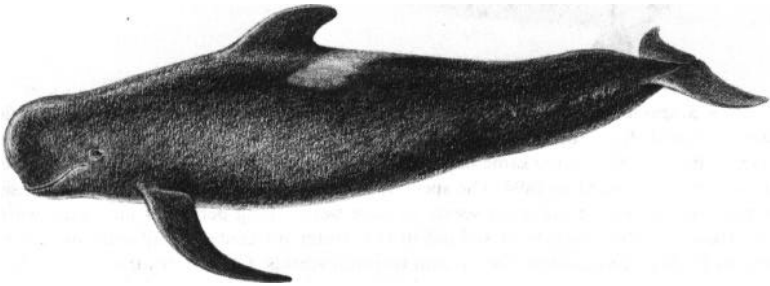
This species feeds primarily on fishes.

Recent studies indicate that two separate populations or stocks of *Delphinus delphis* occur in California waters: a short-snouted form which occurs year round, and a long-snouted form which occurs primarily throughout the Gulf of California, Pacific coast of Baja California, and north to at least the San Diego area. Occasionally, the latter form has been known to occur off the coast of Santa Barbara.

Some researchers have attempted to separate these two populations on a species basis using *Delphinus delphis* for the short-snouted form and *Delphinus bairdi* for the long-snouted form. Others have proposed subspecies names. Due to this confusion, at present it seems best to recognize both under the species *D. delphis*.

## PACIFIC PILOT WHALE

*Globicephala macrorhynchus*



The pilot whale is sometimes known as the blackfish, or on the Atlantic coast by the appropriate name of pothead. It is large for a dolphin, reaching a length of 18 feet, or occasionally 22. Its color is usually entirely black or brownish-gray, with a faintly marked lighter saddle behind the dorsal fin, and a mid-ventral gray blaze-mark. Its most striking feature is its bulbous forehead, or melon. This and its longer flippers help distinguish it from the false killer whale, another all-black species of about the same size. The dorsal fin is low and rounded at the tip, becoming conspicuously hooked in adult animals. In older males the melon enlarges until it extends beyond the tip of the jaw; the pectoral fins become longer, relatively thinner, and sickle-shaped; and the caudal keels become relatively much deeper.

The pilot whale is a slow-moving animal, usually traveling at 4 to 5 knots, but may move faster on occasion. In these waters, it travels in schools of 5 to 50, or occasionally more; in other parts of the world, much larger schools have been seen. This and the closely related Atlantic species have attracted widespread attention through their tendency to strand on the beach in numbers, apparently following their leaders blindly. This behavior, which has been observed in certain other cetaceans, has never been satisfactorily explained.

The Pacific pilot whale ranges from Alaska to Guatemala or Peru. It is fairly common in southern California, where it may sometimes be approached quite closely by a small boat. It also has been known as *G. scammoni* as well as *G. sieholdi*.

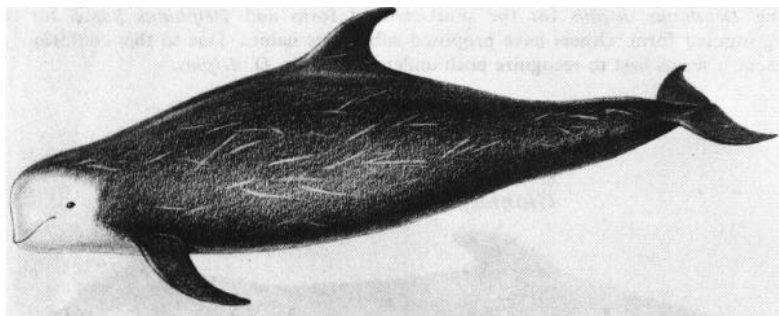
In California, several oceanaria have exhibited these animals, and in captivity they have proven very friendly and appealing and able to learn a number of tricks. They seem to adapt rapidly to aquarium life.

Pilot whales rest or sleep by floating almost motionless at the surface. The buoyancy provided by the fatty melon enables them to float with the blowhole exposed.

Their preferred food in captivity is squid, though they will eat a small amount of mackerel. In captivity they eat from 60 to 120 pounds a day, depending on their size. They probably eat more in nature.

## RISSO'S DOLPHIN

*Grampus griseus*



This is a species of wide distribution, found in both the Atlantic and the Pacific. However, records from this coast are very few. It was described under another name from Monterey Bay in 1873, in the same paper that described *Tursiops gilli*, and then reported again as being abundant in 1894. The specimens upon which the descriptions were based were probably taken during what seems to have been a long period of unusually warm water. However, they have been sighted in the winter off central California on several occasions by biologists aboard the fur seal research vessels. Captain Scammon said these dolphins may occur singly, in small numbers, or in large schools, and this observation is borne out by later sightings along this coast. In 1971, a school of about 50 was seen between Pt. Loma and San Clemente Island, and during 1972, over 200 were seen in one group off the Washington coast. There is also a sighting record from Guadalupe Island, off Baja California.

This is a large dolphin, reaching 13 feet in length. It has no beak. It is gray on the back, with black fins and tail, white or whitish below. The entire head area is lightish. The skin is often covered with long, narrow white streaks, presumably scars. The forehead is prominent, the profile suggesting that of the pilot whale. The dorsal fin is high and falcate, the flippers long and pointed. There are two to seven pairs of teeth near the tip of the lower jaw; teeth are usually absent in the upper jaw, or if present, are small. Food is almost exclusively cephalopods.

The famous Pelorus Jack, which for 24 years, from 1888 to 1912, accompanied ships crossing Cook Strait between the two main islands of New Zealand, was of this species. He joined them on a certain stretch off Pelorus Sound and accompanied them in either direction for about 6 miles, then left.

Rizzo's dolphin has also been known as *Grampidelphis*.