

Whaling

The Early Days

- ▲ Whaling started in the first few centuries A.D. by the Japanese
- ▲ the Norwegians and by the Basque between about 800 and 1000 A.D.
- ▲ The Dutch, British and Americans started in the 17th century.

LOW TECH METHODS

- ▲ All of this early whaling was done from small boats using hand-thrown harpoons and ropes.
- ▲ Processing of the whale done on shore
- ▲ Europeans wanted the whales for their oil and for their baleen.
- ▲ The Japanese ate the meat.



Wood engraving by William P. Bodfish, American (fl. late 19th century). "Whaling Off Long Island - Drawn by W.P. Bodfish" from Harper's Weekly, January 31, 1885.

AMERICAN WHALING

- ▲ Native Americans on west coast
 - ▲ Makahs in Puget Sound (harpoon)
 - ▲ Chumash (shore whaling techniques)
- ▲ Early European explorers comment on the large size of whale population in Northeast
- ▲ 1600's Massachusetts Bay Colony
 - ▲ Abundance of whales accessible by small boats made this a lucrative endeavor
 - ▲ Encouraged with tax exemptions
 - ▲ Crews exempt from military service
- ▲ By early 1770's whalers needed to go farther out to sea to hunt whales
- ▲ Found the sperm whale whose oil (spermaceti) burned brighter and clearer than any other oil and made finest grade candles
- ▲ Outfitted single-masted sailing vessels called sloops
- ▲ Became famous world over for their expertise in whaling

- ▲ By 1770's two-masted schooners and small square rigged brigs were used to pursue whales eventually pursuing them all over the world
- ▲ 1820 – 1850 - Ships going all over world
- ▲ Processing of the whales begun on board ship
- ▲ Discovered breeding grounds of whales
- ▲ Whales decimated in huge numbers
- ▲ Artic Whaling Disaster in 1871 when 33 ships were caught in ice pack and abandoned a real set back to American Whaling interests.

Whaling and War Time

- ▲ American Revolution – British blocked our ports, impressed our seamen
 - ▲ Many whaling families moved their business to Britain and France
- ▲ Napoleonic Wars – we were neutral but our whaling was impeded by the events in Europe
- ▲ Civil War –
 - ▲ South destroyed 50 whaling ships
 - ▲ Other whaling ships turned into war ships
 - ▲ Whaling technology changes and we don't keep pace
 - ▲ Petroleum replaces need for whale oil

Golden Age of Whaling

- ▲ 1820 – 1850 - Ships going all over world
- ▲ Processing of the whales begun on board ship
- ▲ Discovered breeding grounds of whales
- ▲ Whales decimated in huge numbers

American Whaling Declines

- ▲ Artic Whaling Disaster in 1871 when 33 ships were caught in ice pack and abandoned a real set back to American Whaling interests.
- ▲ Didn't fully embrace new technologies
 - ▲ Steam power and harpoon cannons were never systematically employed
- ▲ 1849 Distillation of kerosene from oil and eventually replaces whale oil as the illuminant of choice and creates a new market for crude oil and starts saving the whales
- ▲ 1859 First oil well in United States is drilled 69 feet deep at Titusville, Pennsylvania by Colonel Edwin Drake
- ▲ 1879 electric light bulb invented
- ▲ 1906 development of spring steel

World Modern Whaling

- ▲ Harpoon gun and factory ships changed everything.
 - ▲ Europeans, Russians and Japanese continue extensive whaling
 - ▲ Harpoons mounted on fast steam-driven vessels, make it possible to catch the faster-swimming whales (blue, Fin, Sei, and Minke).
 - ▲ Factory ship voyages were 3-5 years in length, increasing the number of whales they could hunt.

species/stock estimates	pre-whaling population estimate	current population estimate
blue whale	160,000 - 240,000	9,000
gray whale(eastern Pacific stock)	15,000-20,000	21,000
gray whale (western Pacific stock)	1,500-10,000	100-200
humpback whale	150,000	25,000
fin whale	300,000-650,000	123,000

Something had to be done

- ▲ International Whaling Commission (IWC) in 1946 to regulate whaling.
- ▲ It brought about the end of most commercial whaling.
- ▲ Loopholes in the IWC Moratorium.
 - ▲ compliance is **voluntary**
 - ▲ there are exceptions for "**aboriginal whaling**";
 - ▲ the American Eskimos are still allowed to hunt the bowhead whale and the gray whale,
 - ▲ the Russians are allowed to take 100-200 gray whales to serve to their northern aboriginals
 - ▲ whaling "for **scientific research**" is still allowed.

Cetacea – Mammals not fish

- ▲ Whales breathe air into lungs,
- ▲ Whales have hair (although they have a lot less than land mammals, and have almost none as adults),
- ▲ Whales are warm-blooded (they maintain a high body temperature),
- ▲ Whales have mammary glands with which they nourish their young,
- ▲ Whales have a four-chambered heart.
- ▲ Whales breathe air into lungs,
- ▲ Whales have hair (although they have a lot less than land mammals, and have almost none as adults),
- ▲ Whales are warm-blooded (they maintain a high body temperature),

- ⤴ Whales have mammary glands with which they nourish their young,
- ⤴ Whales have a four-chambered heart.

Two families of whales –

1.) Toothed Whales or Odontoceti

- Sperm whale is the largest of this family
- Orcas
- Dolphins
- Porpoises



Sperm Whale has oil in his square shaped head. He uses it for echolocation. Whalers liked it for its purity.

Orca or killer whale. Live and Travel in pods or family units.

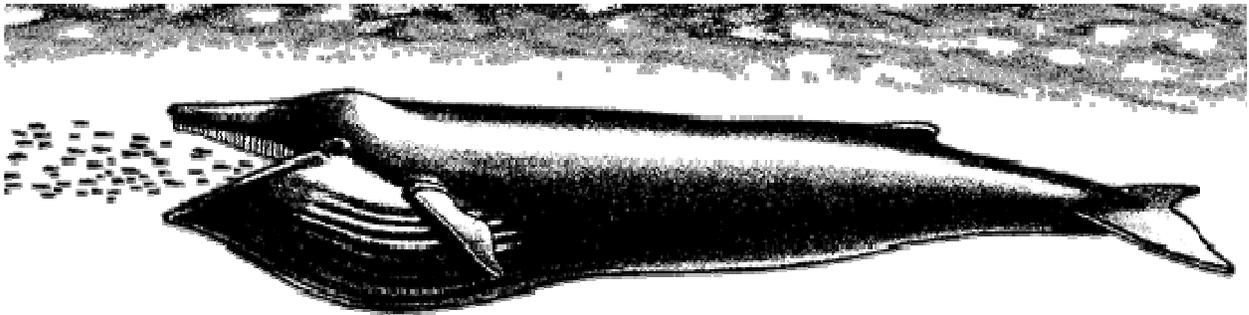


2) *Baleen or Mysticeti*

- ▲ Baleen is shaped differently in the various whales.
- ▲ The baleen that we have on display in the museum is from the blue whale. Because of the huge size of this whale, one piece of baleen can be 3 feet in length and it can have as many as 350 in its mouth
- ▲ The baleen from a gray and humpback is more like a scrub brush.
- ▲ Baleen is made of keratin (the same substance our fingernails and hair are made of). Baleen grows throughout a whale's life. The ends of a whale's baleen are always wearing out.



▲



- ▲ Blue Whale is largest creature on land or sea
- ▲ A Blue Whale's head is so wide that 50 people would be able to stand on its tongue. Its heart is close to a size of a small car.
- ▲ A human baby could crawl through a Blue Whale's arteries.
- ▲ A newborn Blue Whale calf weighs more than an elephant and is 25 feet long.
- ▲ During the first 7 months of its life, a baby Blue Whale drinks approximately 100 US gallons of milk every day.
- ▲ Baby Blue Whales also gain weight fast: 200 pounds every 24 hours.
- ▲ By the time Blue Whale hunting was finally banned in the 1960s by the International Whaling Commission, 350,000 individuals had been killed.
- ▲ The total world population is now 3–4,000 with the largest concentration of 2,000 individuals located off the coast of California.

- ▲ This group represents the best hope for a long-term recovery in Blue Whale population. The Blue Whale has been on the list of endangered species since the 1960s.



- ▲ **Gray whales** inhabit shallow coastal waters of the eastern North Pacific. The gray whale makes one of the longest of all mammalian migrations, averaging 10,000-14,000 miles round trip.
- ▲ In October, the whales begin to leave their feeding grounds in the Bering and Chukchi Seas and head south for their mating and calving lagoons in Baja California, Mexico. The southward journey takes 2-3 months.
- ▲ The whales remain in the lagoons for 2-3 months, allowing the calves to build up a thick layer of blubber to sustain them during the northward migration and keep them warm in the colder waters. The return trip north takes another 2-3 months. Mothers and calves travel very near shore on the northbound migration.



- ▲ Gray whale passes by our coastline from January to March – longest migration known – 14,000 miles
- ▲ Blue whales and humpbacks are seen off the coast of Santa Barbara from June through September