

Why are the whales endangered?  
Are there “right” and “wrong” whales?

## CETACEANS



### BALEEN WHALES

- **Blue**
- **Finback**
- **Right**
- **Sei**
- **Humpback**
- **Gray**
- **Minke**

- Filter feeders,  
eating plankton  
mostly krill and  
copepods

- have baleen =  
"whalebone"  
to filter the plankton

### TOOTHED WHALES

- \* **Sperm whale**
- \* **Killer whale**
- \* **Pilot whale**
- \* **White (beluga) whale**
- \* **Narwhal whale**
- \* **Bottle-nose dolphin**

- Hunters,  
eating fish, squid  
eel, seals, sea lions,  
smaller whales

- have teeth, fast  
swimmers (35mph)

- Baleen whales reside more in temperate and polar latitudes
- Toothed whales are found more at low latitudes
- Whale migrations (spring → towards the Poles, in fall → to lower latitudes)
  - \* breeding
  - \* giving birth
  - \* seasonal change in food sources

## **How to grow a blue whale?**

### "Antarctic marine food web"

- upwelling zone near the coast of Antarctica
- high primary productivity (diatoms)
- krill feeding on diatoms (the most abundant animal species on earth)
- whales, seals, birds, squid & fish eat krill
- human consumption of krill

# Whaling

## A. aboriginal and subsistence whaling

- meat
- oil
- skin
- whalebone

## B. commercial whaling (1610 →)

- oil
- whalebone (baleen)

Whalebone – used as strainer (filter) in industry  
until plastics were invented

Oil – extracted from blubber and oil sacks in  
whales' head

- high quality oil (0 - 500°C)
- illuminant
- lubricant
- edible fats
- perfumes (ambergris)

## International whaling commission (IWC)

- set rules, estimate remaining whales

- \* Discovery of petroleum
- \* Extraction of oils from plants (jojoba)
- \* Synthetic oils

Right whales – the most endangered

"just right → were easy to kill and full of oil and whalebone"

Toothed whales

- sperm whales hunted for oil (ambergris)
- other toothed whales not endangered
- killed indirectly
  - \* "Dolphin safe" tuna  
(5 million dolphins killed in 14 years in Eastern Tropical Pacific)