PNW Odontocetes – Orca

- Pods
  - 3-25 individuals
- Feeding
  - Top predator
  - Wide range
    - Fish, seals, sea lions, sea turtles, birds, other cetaceans, great whites!

PLAY

- Reproduction (fyi only)
  - Mating occurs within a pod
  - Females first calves around age 15
    - Born in winter
    - 1- 1.5 year gestation

PNW Odontocetes – Orca

- Populations
  - Three groups
    - Resident
      - Smaller size
      - Feed primarily on salmon
      - Follow predictable routes
      - Very vocal
      - Shorter dives
    - Transient
      - Taller straighter dorsal fins
      - Smaller pods
      - Erratic travel
      - Feed on more mammals
    - Offshore
      - Like residents but farther out at sea

PNW Odontocetes – Pacific White-Sided Dolphin

- *Lagenorhynchus obliquidens*
  - ~ 7 ft
    - Newborns ~3 ft
  - ~200-400 lbs
    - Newborns ~30 lbs
  - Dark back
  - Light gray side patch from eye to below dorsal fin
    - Narrow gray streak from dorsal fin to tail
  - White underside
  - Dark eyes/beak
  - Bi-colored dorsal fin
    - Dark leading, pale trailing edge
    - Rearward pointing
  - Acrobatic and gregarious

PNW Odontocetes – Pacific White-Sided Dolphin

- Groups
  - 10-50 individuals

PLAY

- Feeding
  - Wide variety
    - Squid, anchovies, hake, other small fish
    - Groups herd fish for more efficient capture
      - Adult eats ~20 lbs/day
- Reproduction (fyi only)
  - Mating/calving occurs late spring to fall
    - 9-12 month gestation
    - Nurse 18 months

PNW Odontocetes – Pacific White-Sided Dolphin

- Range
  - West coast North America
    - Baja CA to Gulf of Alaska
    - across Pacific to East coast Asia
- Population
  - Stable
  - ~1,000,000
    - Propensity to approach boats skews numbers

PNW Odontocetes – Dall's Porpoise

- *Phocoenoides dalli*
  - Black back
    - White sides at mid body
      - Around mid belly
      - Some with white chin
  - Bi-colored dorsal fin
    - Small relative to body size
  - 5 - 8 ft long
    - Newborns 2.5-3 ft
  - 250 – 500 lbs
    - Newborns unknown
- Second smallest cetaceans in PNW
  - Harbor Porpoises smaller
- Among fastest cetaceans
  - Up to 35 mph

PNW Odontocetes – Dall's Porpoise

- Groups of 10-20 individuals
- Feeding
  - At surface or deep
    - Up to 1600 ft
    - Squid, lantern-fish, hake, mackerel, capelin
- Reproduction (fyi only)
  - Mating / calving
    - Two peaks
      - Feb-March; July-August
    - Females mate around 3-4 years old
    - 11.5 month gestation

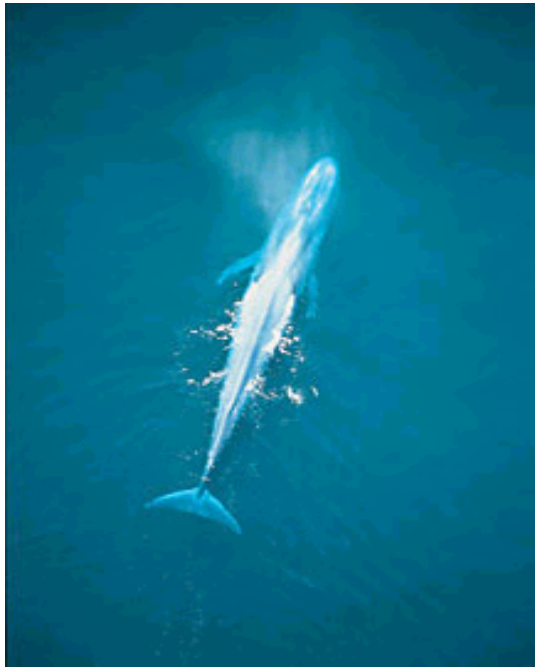
PNW Odontocetes – Dall's Porpoise

- Range
  - North Pacific
    - North America
      - S. CA to Gulf Alaska
      - To Asia
- Population
  - Unknown but likely declining
    - Hunted widely
      - Some countries up to 45,000/yr
    - By-catch in nets
- Like dolphins, sleep with half brain awake
  - To watch for Orcas and sharks

Mysticetes

Right Whale

Blue Whale



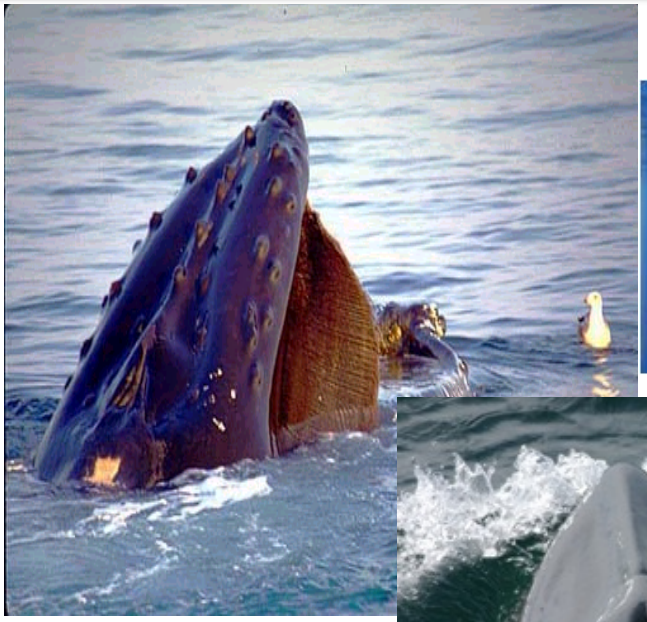
Minke Whale

Humpback Whale

Bowhead Whale

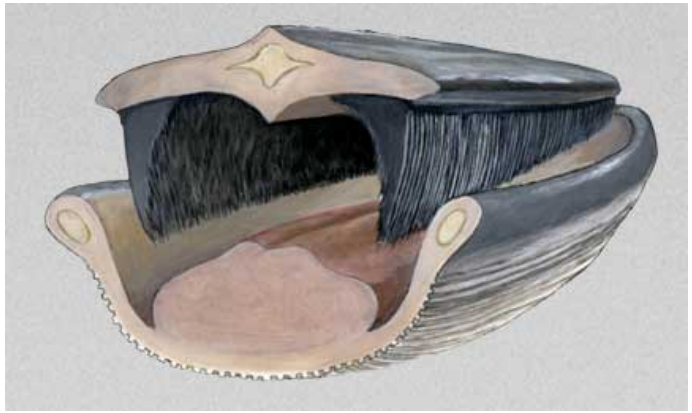
Bryde's Whale

Mysticetes



- Baleen whales
  - Lack teeth
  - Use baleen
    - Comb-like structure
    - Sieve tiny crustaceans, small fish, and other tiny organisms
      - Krill
- Larger than the toothed whales
- 2 blowholes
- Do not have echolocation
  - But known for their songs
- 10 species of baleen whales world wide

Baleen



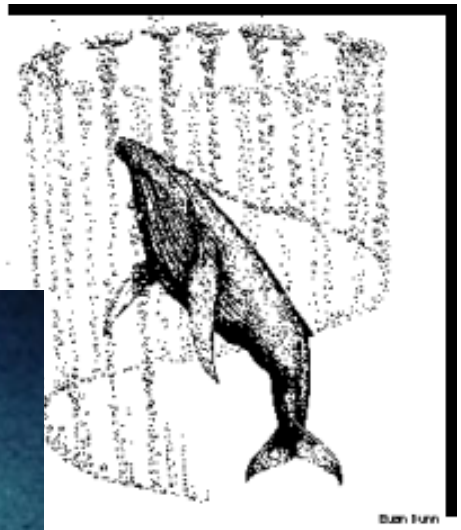
- Made of keratin
- Plates extend from upper jaw
  - Can be 0.5 to 3.5 metres (1.6 to 11 ft) long
    - Weigh up to 90 kilograms (200 lb)

Feeding methods

- Gulping/Lunging
  - Take an enormous gulp of sea water
    - Suck in several tons of plankton/krill
- Skimming
  - Some simply open their mouths and skim the top of the water
    - Filtering out their food
- Bottom-feeding
  - Used by Gray whales
    - Descend to the ocean floor and sweep their heads back and forth over the bottom
      - Scares amphipods out of silt
        - Into mouth of whale

Social Groupings

- Mysticetes
  - Tend to live as individuals
    - Except mothers with calves and during the mating season
- Some Mysticetes will travel and feed in small groups
  - Especially visible during bubble netting
    - But often these groups are short lived



PNW Mysticetes – Gray Whale

- *Eschrictius robustus*
  - Mottled gray body
    - Narrow triangular head
      - Top arched
    - Many barnacles and whale lice
    - "knuckles" along back in front of tail
  - 40 - 50 ft long
    - Newborns ~15 ft
  - 30 - 50 tons
    - Newborns ~1000 lbs
  - Routinely viewed
    - May like backrubs?!
    - Mar-April and Oct-Dec
  - Extirpated from Atlantic
  - Occasionally preyed upon by orcas

PNW Mysticetes – Gray Whale

- Reproduction (fyi only)
  - Mating occurs in winters off Mexico
    - Females mate one year
      - Give birth next year
  - Males sexually mature ~ 36ft
  - Females sexually mature ~38ft
    - 13.5 month gestation
    - Nurse 6-9 months

PLAY

Sarah Graham

PNW Mysticetes – Gray Whale

- Migration
  - 12,400 miles
    - Among longest of any mammal
  - Summers in Arctic
  - Winters off Mexico
- Feeding
  - Arctic summers
    - Bottom feeding on amphipods
      - Right lipped
  - Winter
    - Very little feeding or complete fasting
      - Lose up to 30% body mass

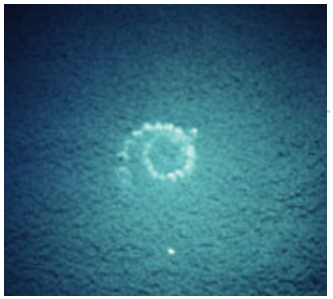
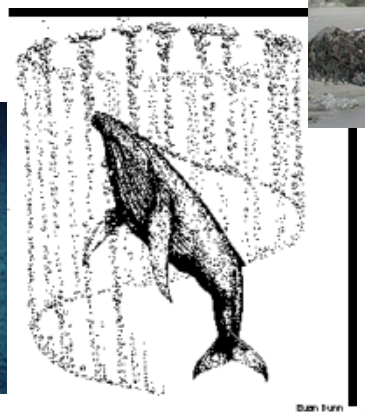
PNW Mysticetes – Humpback Whale

- *Megaptera novaeangliae*
  - Dark gray/slate blue body
    - Underside from same as above to white
  - Slender head with knobs around snout
  - Mouth curves down at eye
    - 12-36 throat grooves
      Expansion for water intake
  - Long and knobby flippers
  - White markings on fluke used for ID
  - Small dorsal fin located more posterior
  - 40 - 60 ft long
    - Newborns ~15 ft
  - 25 - 55 tons
    - Newborns ~1-2 tons

PNW Mysticetes – Humpback Whale

Reproduction (fyi only)

- Both genders sexually mature at about 5 years
  - Females at 40 ft
    - Males at 38 ft
  - Males sing to attract females
    - PLAY 1-30 minutes
      - Repeating for several days
    - Females choose males
  - Mating occurs in warm water
    - Males battle to win females with calf
  - Single calves born
    - 11.5 month gestation
    - Nurse for one year

PNW Mysticetes – Humpback Whale

- Migration
  - 3 migrating pops
    - 1st
      - Summers in Aleutians
      - Winters in Hawaii
    - 2nd
      - Summers - AK, BC, WA
      - Winters - Hawaii
    - 3rd
      - Summers - OR, CA
      - Winters - Baja, Costa Rica
  - Some may switch populations
  - ~5,000 miles
- Feeding
  - Schooling fish or krill
    - Lung feeding
    - Bubble nets