

#### THE NATURAL HISTORY OF THE GRAY WHALE

Eschrichtius Robustus (E. Robustus)

A Presentation by Norma Jellison (Whale Watch)

### Eastern Pacific Gray Whale

- Mammal
  - Cetacean (Whales, Dolphins, Porpoises)
    - Mysticeti (Baleen Whale)
  - Coastal Whale visible from shore
  - Migrates along North American Pacific Coast; between Arctic seas and lagoons of Baja California, Mexico

#### Identification

- Streamlined Body Narrow tapered head
- Gray Mottled Skin
- No Dorsal (top) Fin
- Dorsal Hump w/ 6-12 knuckles
- Flippers small paddle-shaped
- Fluke (tail) 10-12' across pointed at tips; deep center notch



- Size
  - Adult Males 45-46'
  - Adult females up to 50/55'
  - Calves 12-15'
- Weight
  - Adults up to 45 Tons (average 35T)
  - Calves 1500 2000 lbs at birth
- Population
  - Approx 20,000

### Lifecycle

Sexual Maturity: 5 to 11 years or 36-39'

Gestation: 12-13 months

Calving Interval: 2 or more years

Calves Nurse: 7-8 months > 50 gallons/day

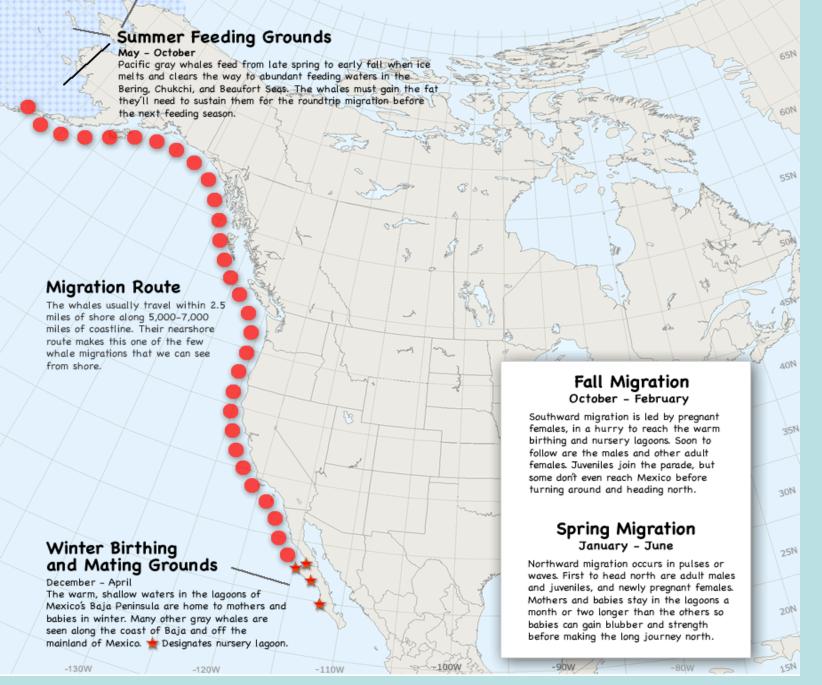
• Milk: 53% Fat (human milk 2% fat; 15x fat of cow's milk)

### Life Cycle

- Breeds on southbound migration mostly in So CA waters and in Pacific lagoons of Baja: Ojo de Libre, Laguna San Ignacio, Bahia Magdalena
- Calves mostly in Baja lagoons/some in So CA waters
- Feeds
  - Mostly in Alaska (Chucki, Beaufort, N Bering Seas) +/- 5
    months until ice forms
  - Opportunistic feeders during migration
  - Pacific Coast Feeding Group (PCFG) +/- 200 summer/feed between Kodiak Island and No CA

#### Migration

- 10,000-14,000 mi (average 12,000 mi) round trip one of longest of all mammalian migrations
- Southbound October (ice up) 2-3 months (October February) on horizon generally using California Current
- Lagoon Time 2-3 months average (December April)
- Northbound 2-3 months (February July)
  - close to shore uses Davidson Current
  - Newly Pregnant Females first (mid Feb from Bodega Head)
  - Males; Immature Males and Females
  - Cows/Calves last (April June; peak May) closest to shore calf still nursing; needs to rest



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### Pacific Gray Whale

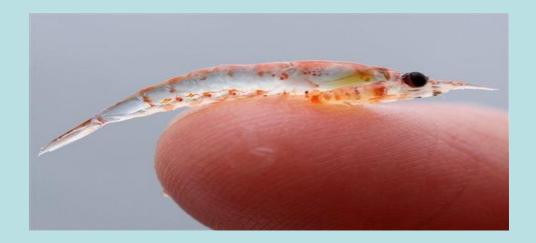
- Speed: 3-5 mph
- Breathing Pattern:
  - blows 3-5 times in 15-30 second intervals
  - followed by dive when submerged 2-5 minutes
  - can stay submerged up top 15 minutes
- Blow:
  - Bushy; heart shaped





#### Diet

- Amphipods that live in sediment of shallow, cold Arctic seas (also bottom dwelling ghost shrimp)
- Eats about a ton/day during 24 hour daylight period (estimated 67 Tons during 5 months on feeding grounds)
- Stored as blubber; lives off blubber stores during migration south and back north

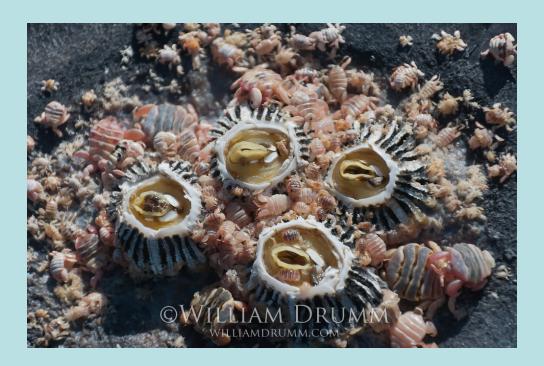


#### **Barnacles and Lice**

**Barnacles** - *Cryptolepas rhachianecti* – only found on Gray Whales and live out life cycle on the whale

**Lice** – 3 kinds of lice (Amphipods) -2 only on Gray Whale:

- Cyamus scammoni and Cyamus kessleri
- Cyamus ceti found on other cetaceans



### Feeding

- Baleen: Upper jaw only; 130-180 plates on either side of jaw; 2-10"; up to 20" long (keratin)
- Sucks in mud/water; pushes through baleen with tongue; amphipods caught in bushy hairs of baleen; whale licks off and swallows
- Most whales are right sided
- 7 ft "craters" in mud = size of whale's head



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