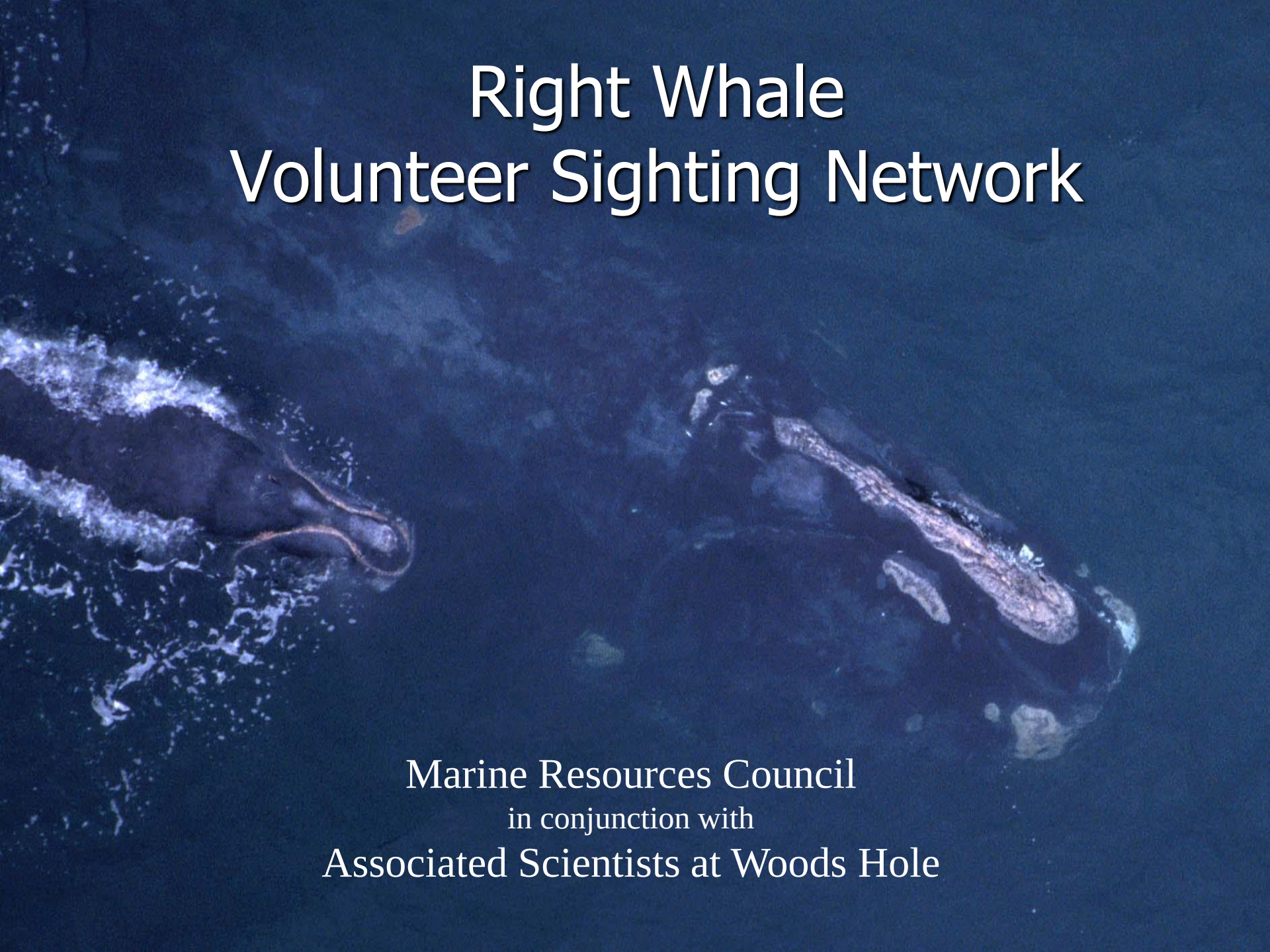


Right Whale Volunteer Sighting Network

Marine Resources Council

in conjunction with

Associated Scientists at Woods Hole

Historical Background

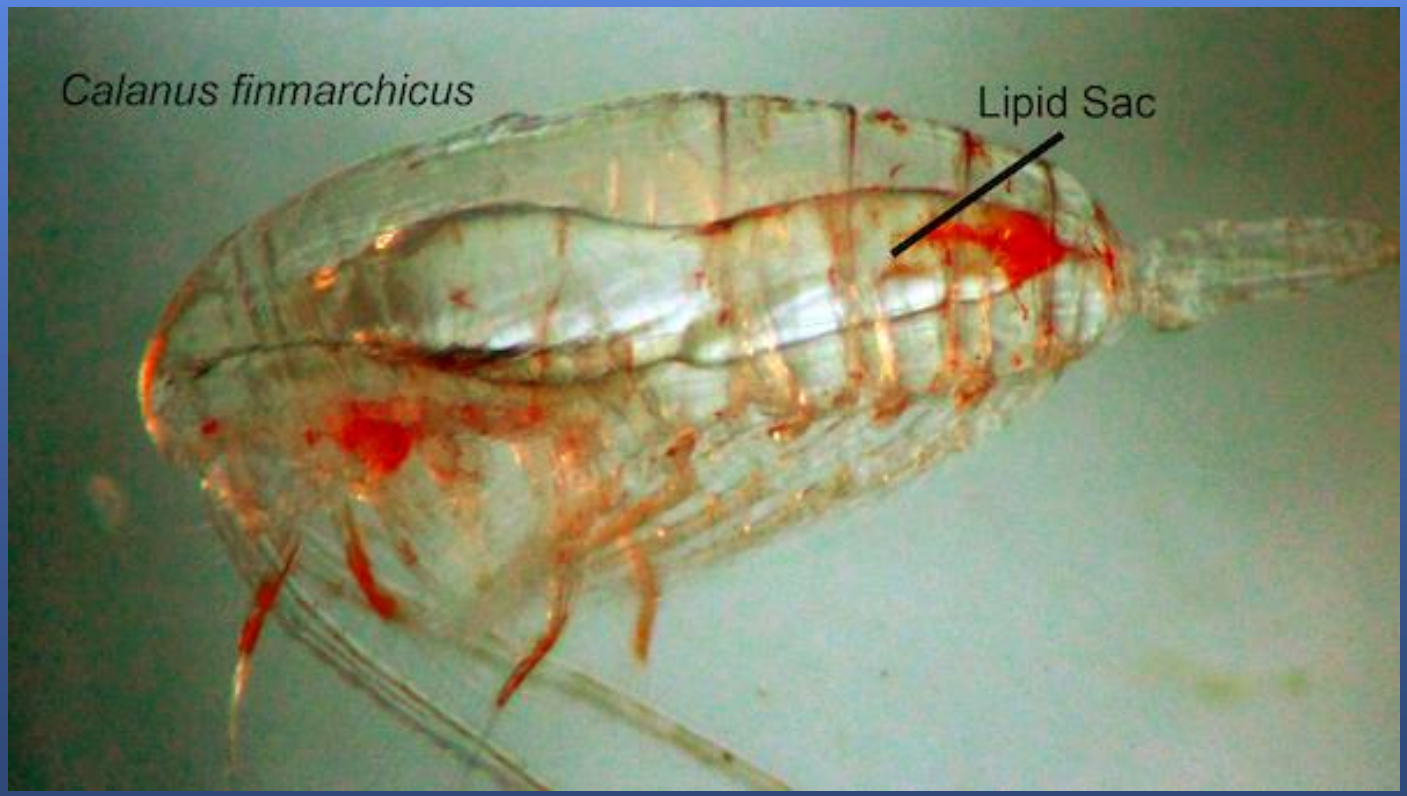
- Whaling = near extinction
- Internationally protected since 1935
  - shift in shipping lanes
  - slowing ships
  - critical habitat areas
  - fisheries regulations
  - approach law

Population Decline Since 2010

- 2017:
  - 17 deaths (all anthropogenic)
  - 5 births
  - 10.2-yr calving interval
- 2018:
  - 1 death
  - 0 births
    - (71 breeding females)

Climate Change - Copepods

- *Calanus finmarchicus*
  - Primary food source
  - Shifting due to changing water temps




Canada
United States
Habitat Areas of the
North Atlantic Right Whale
Critical Habitats
or
Conservation Areas
Migration Zones
0
5,000
10,000
Kilometers

Climate Change - Fishing

- Accessibility is changing (Arctic snow crabs)
- Ocean traffic has increased in Arctic
  - Greater chances of ship strikes
  - Greater distribution of fishing gear

The Outlook by the Numbers

- 458 right whales alive in 2015, including 105 adult breeding females
- 105/458 = 23% of population are breeding females

- 481 right whales alive in 2011 + 77 calves born between 2011 and 2015 = 558 whales
- 558 – 458 = 100 deaths over 5 years (2011-2015)
- 100 deaths ÷ 5 years = 20 deaths/year

- 20 deaths per year x 23% = 4.6 breeding females died per year
- 105 breeding females ÷ 4.6 breeding females dead per year = 23 years

If nothing changes, we will wipe out the 105 breeding females that are alive today in 23 years

Right Whale Conservation Program

Started by Cocoa Beach Women's Club in 1994

- Public Education
- Mitigate Human Impacts
- Gather/Submit Photo-ID & Behavioral Data

1-888-97-WHALE (1-888-979-4253)

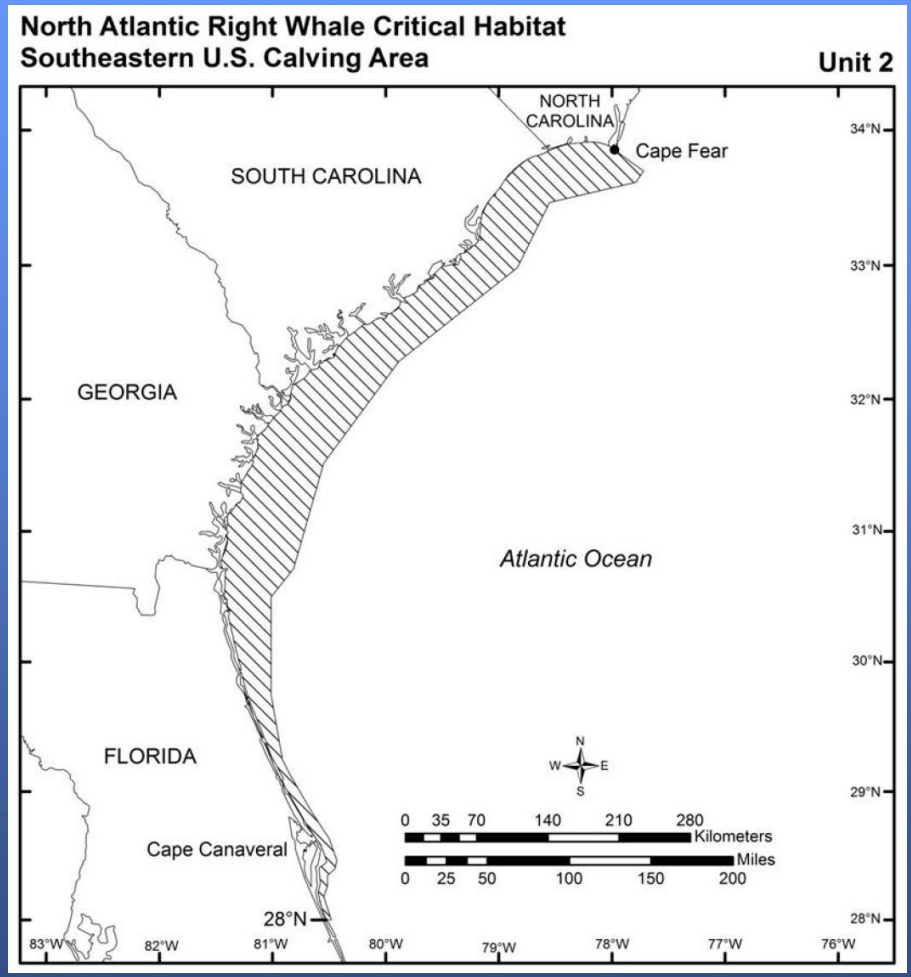
Why is MRC's program so important?

- Only known calving ground
- supplement aerial surveys
- Greatest threats
  are fishing gear entanglements and ship strikes
- Proximity to ports

K. Jackson/FWC

Importance of Volunteer Program

- only known calving ground
- supplement aerial surveys
- collecting unique data
- proximity to ports
- biopsy assistance
- rescue efforts
- training USCGAux pilots



How Big Are They?

- Adults:
  - 45 to 55 ft.
  - 30 to 50 tons
- Calves:
  - 15 ft. at birth
  - 1 ton
  - double their weight in first month

General Appearance

- Black or Dark Gray
- NO Dorsal fin
- Robust
- High Jaw-line
- White Belly
- Callosities on head

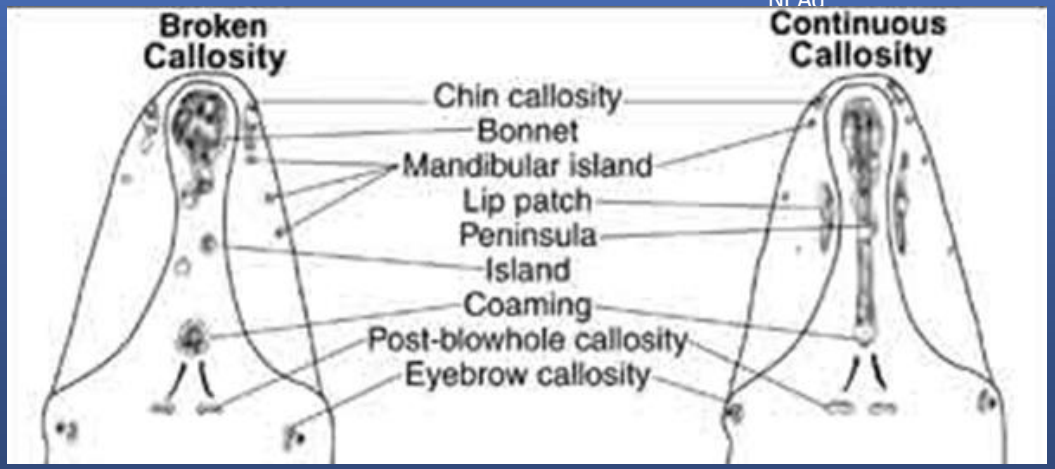
Callosities = Fingerprints

- Cyamids (lice) migrate from mother to calf
- Lice only on head when healthy
- Lice may be orange/pink throughout body when animal is in poor health

Scott Kraus/New England Aquarium

- Present at birth
- Not used for ID during 1st year of life
- Catalog kept by the New England Aquarium

NEAq


Broken Callosity
Continuous Callosity
Chin callosity
Bonnet
Mandibular island
Lip patch
Peninsula
Island
Coaming
Post-blowhole callosity
Eyebrow callosity

NEAq

Black, Paddle-Shaped Pectoral Flippers

Tail Flukes

- Broad, black
- Deep “V” notch
- Smooth trailing edge


Two Blowholes


V-Shaped Blow

Compared to Humpbacks

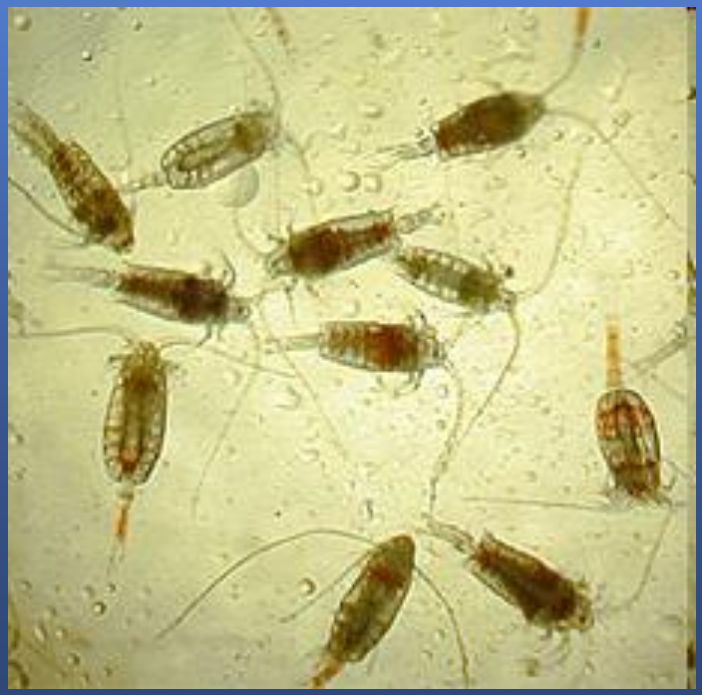
Baleen

- 220 to 260 primarily black keratin plates
- Narrow, tapered, up to 8+ ft.
- Inside edge is fringed by fine, silky hair

Feeding

- Primary prey – Copepods
- Consume 1 to 1 ½ tons per day! (In Summer)
- Skim feed at surface or at depths greater than 600 ft.
- Can hold breath 20 min. and repeat for several hours

NOAA Fisheries Service/ Permit No. 775-1600



Reproduction - SAG

- Maturity: Males maybe 10 yrs., Females 8-10 yrs

Mothering

- Gestation: 12 – 13 months
- Single calf born in winter
- Born Tail First
- Calves nurse on rich milk
- Calving Interval: up to 10 yrs.

#1 Killer:
Entanglement in Fishing Gear

Windham-Reid FWC/FMRI


Rone FWC/FMRI


Lobster Trap Line
Barco

#2 Killer: Ship Strikes

Right Whale Calf Struck by Prop


10 March 2005 M. Zani


11 Feb 2008 NEA


60’

Right Whales come VERY close to shore

Human Impacts

Human Impacts

Grateful Acknowledgement to:

Richter Family Foundation