

North Pacific Right Whales, *Eubalaena japonica*, In The Eastern North Pacific

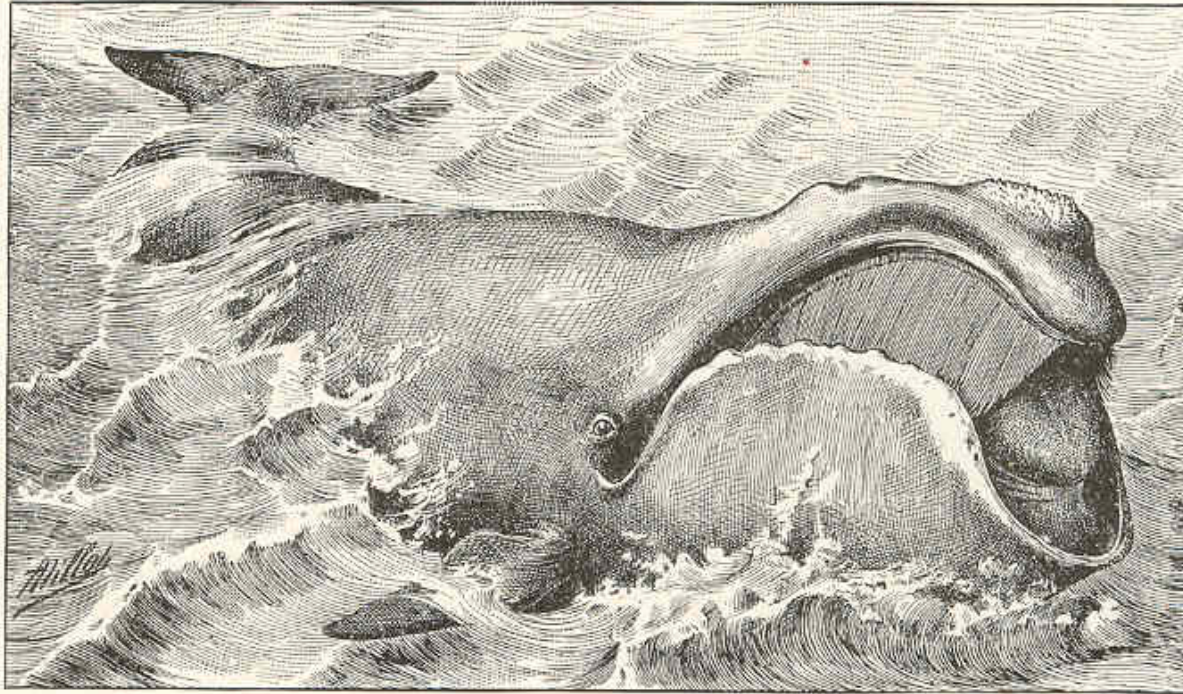


FIG. 142. – BALEINE DES BASQUES (longueur : 20 mètres).

Authors:

K.E.W. Sheldon

J.M. Waite

P.R. Wade

S.E. Moore

D.J. Rugh

P. Clapham

National Marine Mammal Laboratory, Seattle, WA, USA

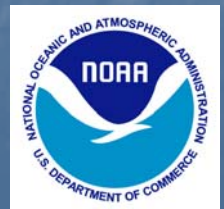
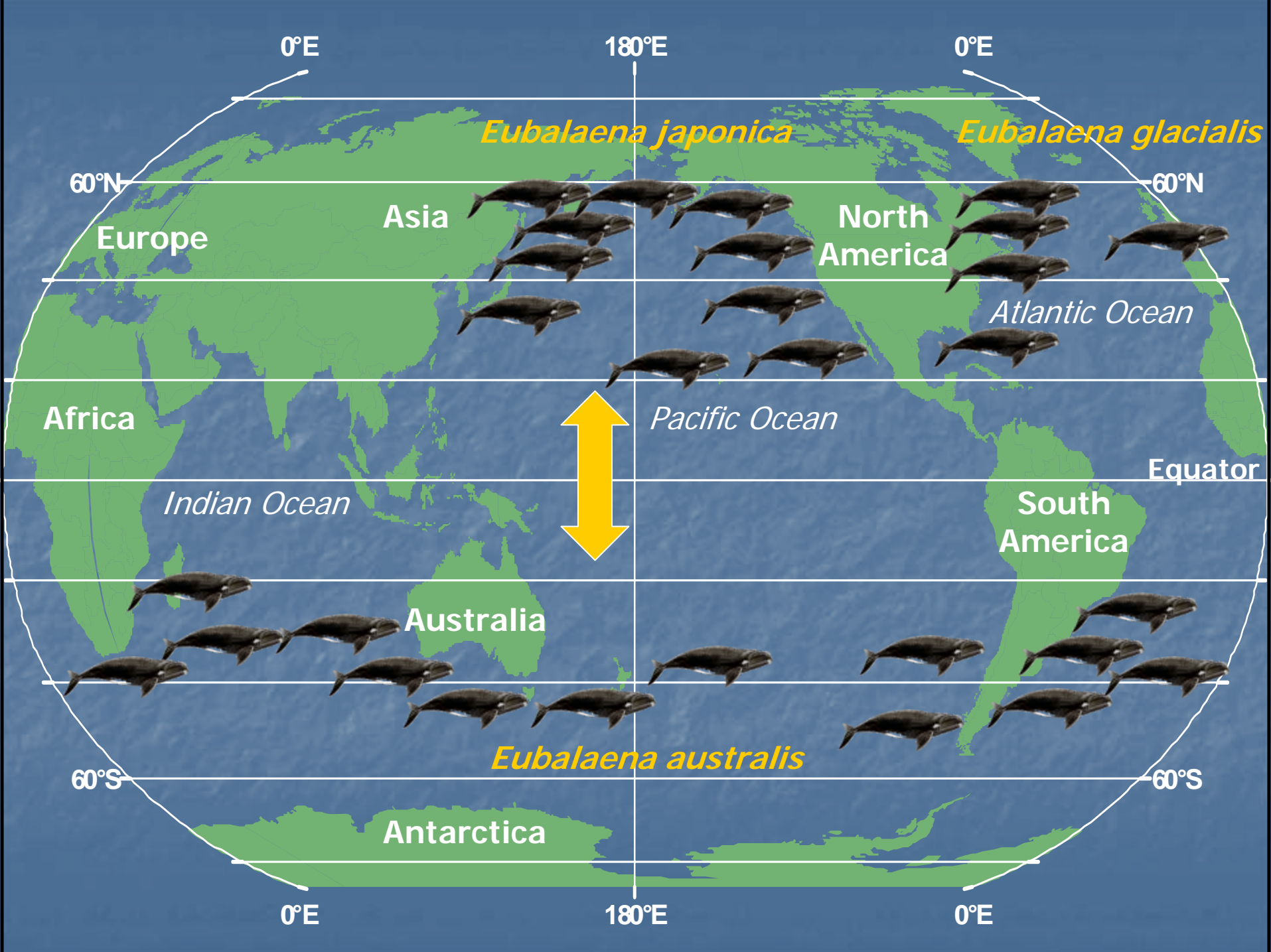




Image from Center for Coastal Studies

Taxonomic Status

- Genetics: three oceanic groups clearly discrete and long-separated
- NMFS currently preparing listing to split into three species:
 - *E. glacialis* (North Atlantic)
 - *E. japonica* (North Pacific)
 - *E. australis* (Southern Hemisphere)



North Pacific: Whaling History

- Began in 1835 on the Northwest Ground
- Whalers moved into the western North Pacific by 1845
- Depleted by 1849
- 21,000-30,000 whales killed in the 1840's
- Some whaling in the early 20th century

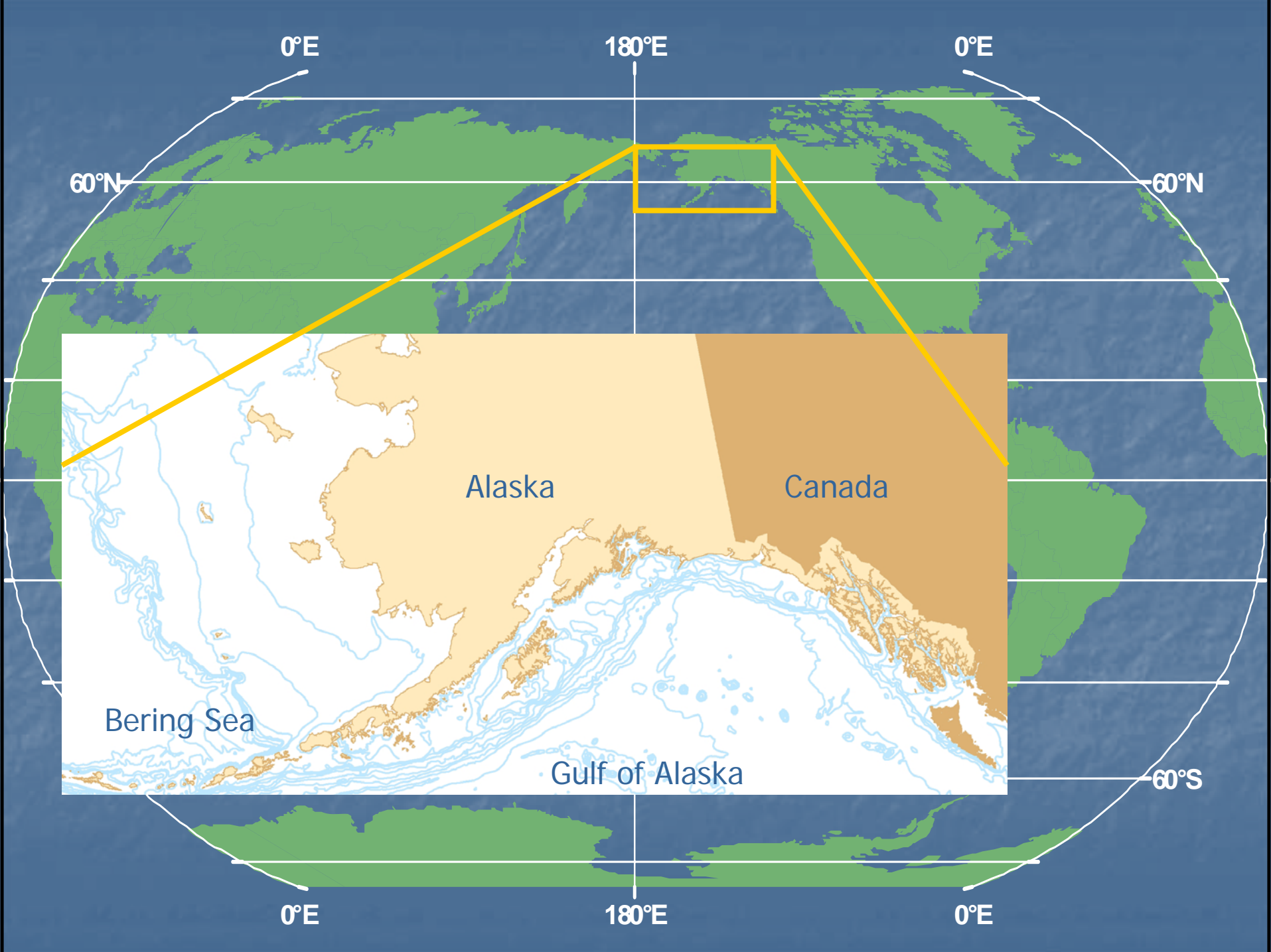
Disappearing Whales

- 1941-1964: 598 sightings east of 180
- 1965-1999: 82 sightings

- Where did they all go?

Disappearing Whales

- Soviet catches: 372 whales (mostly in 3 years):
 - 251 Gulf of Alaska
 - 121 Bering Sea
 - + others in the Sea of Okhotsk
- Eastern and western North Pacific RW populations considered separate



0°E

180°E

0°E

60°N

60°N

Alaska

Canada

Bering Sea

Gulf of Alaska

60°S

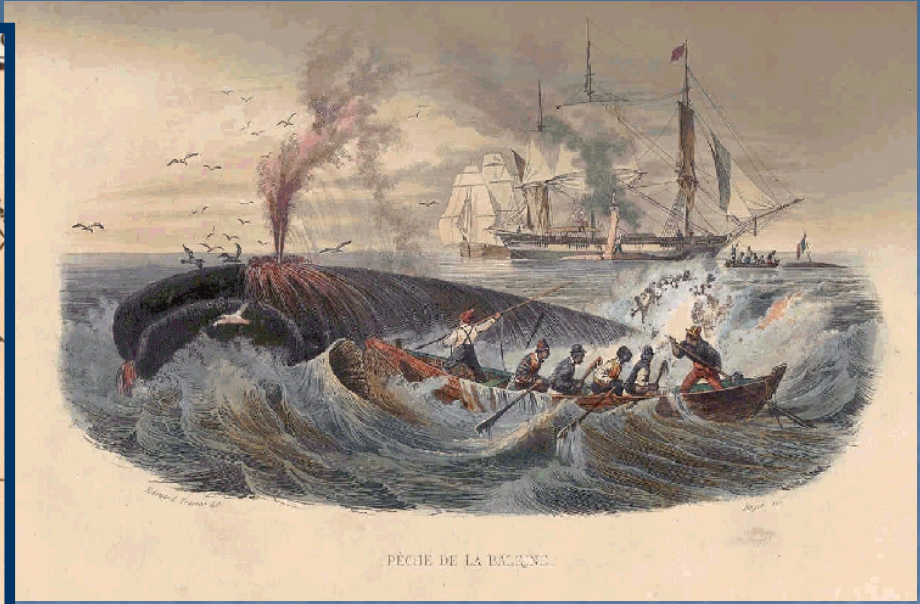
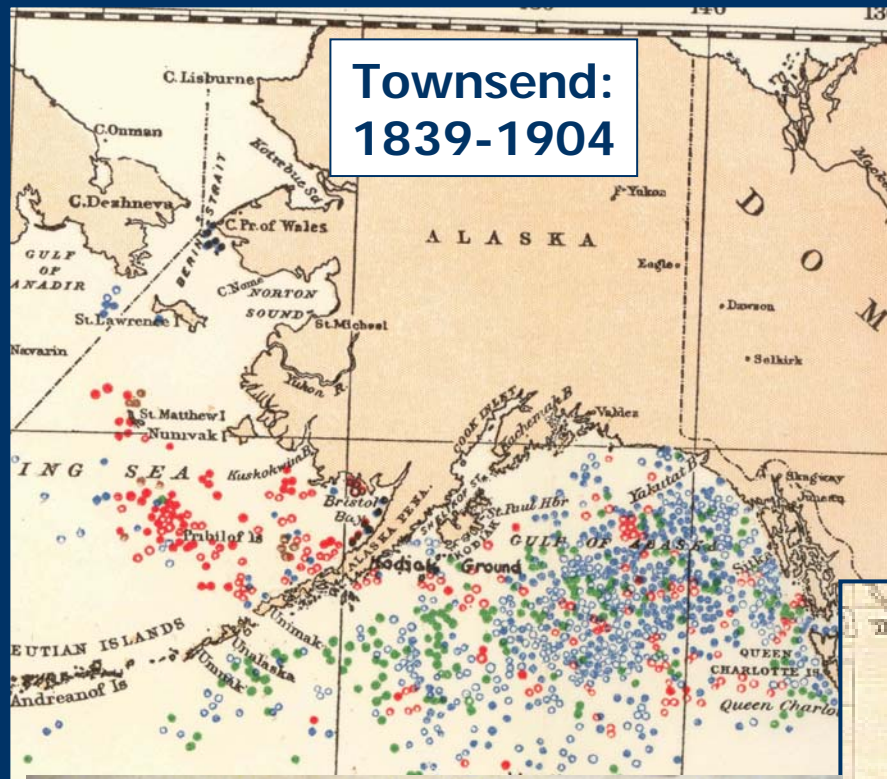
0°E

180°E

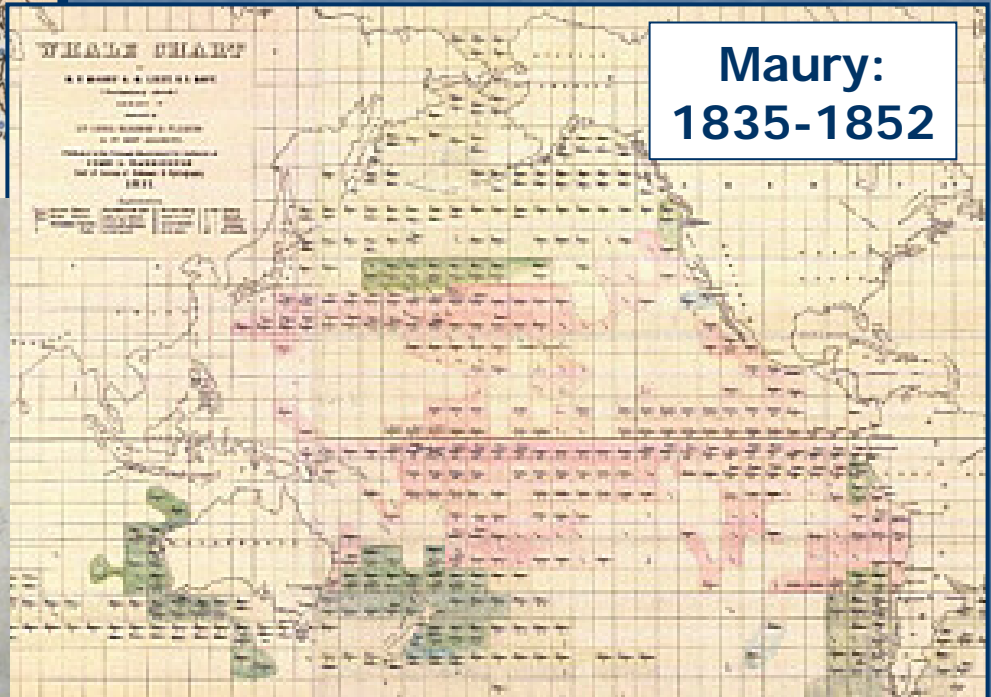
0°E

Datasets from 1835 to 1904

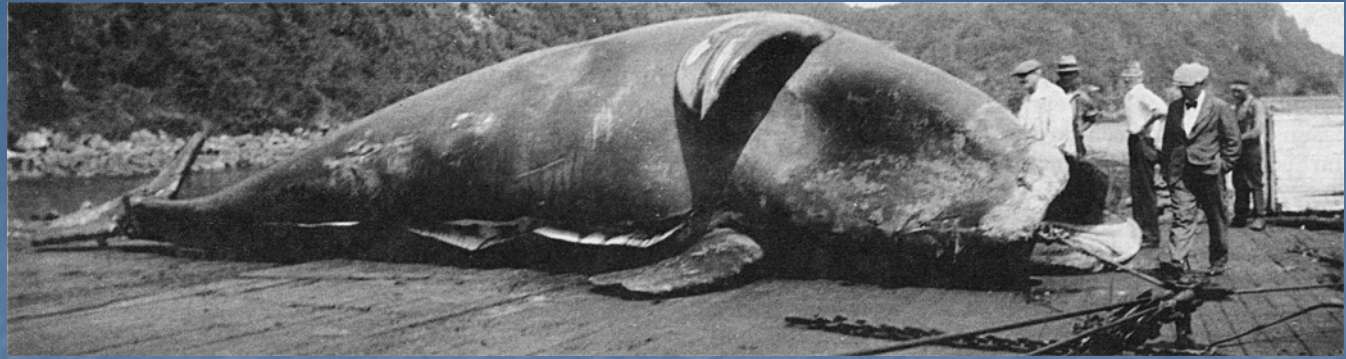
**Townsend:
1839-1904**



**Maury:
1835-1852**



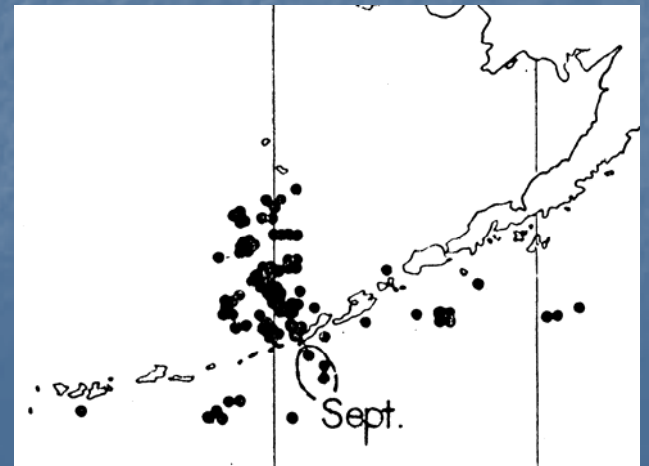
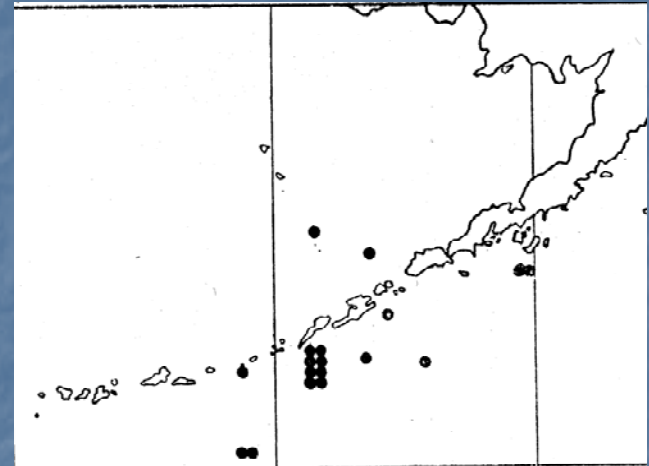
Datasets from 1924 – 1979



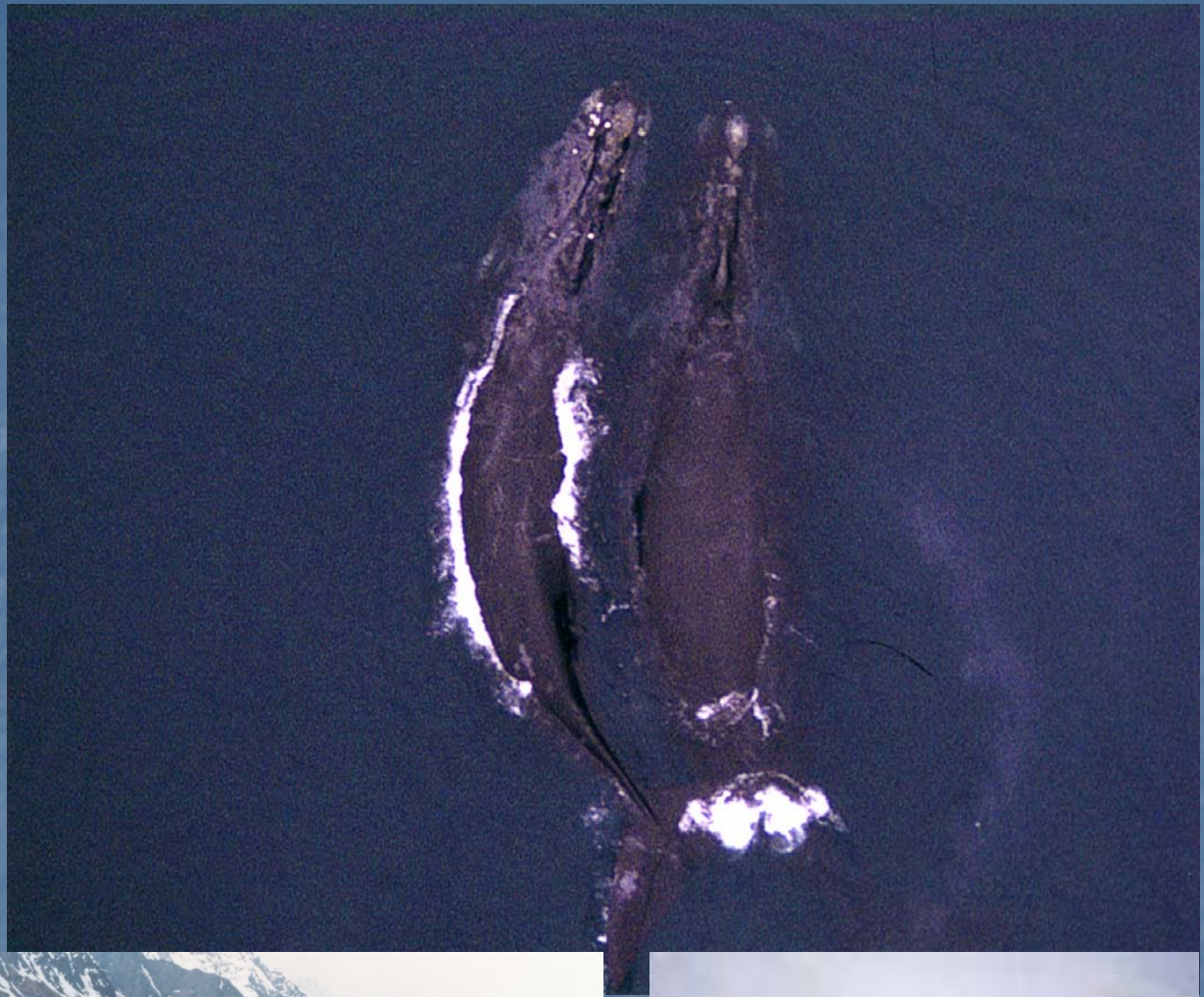
Shore whaling stations: 1924-39

Japanese sighting and scouting cruises: 1941-79

Illegal Soviet whaling: 1963-67 (Doroshenko 2000)



Datasets from 1979 to present



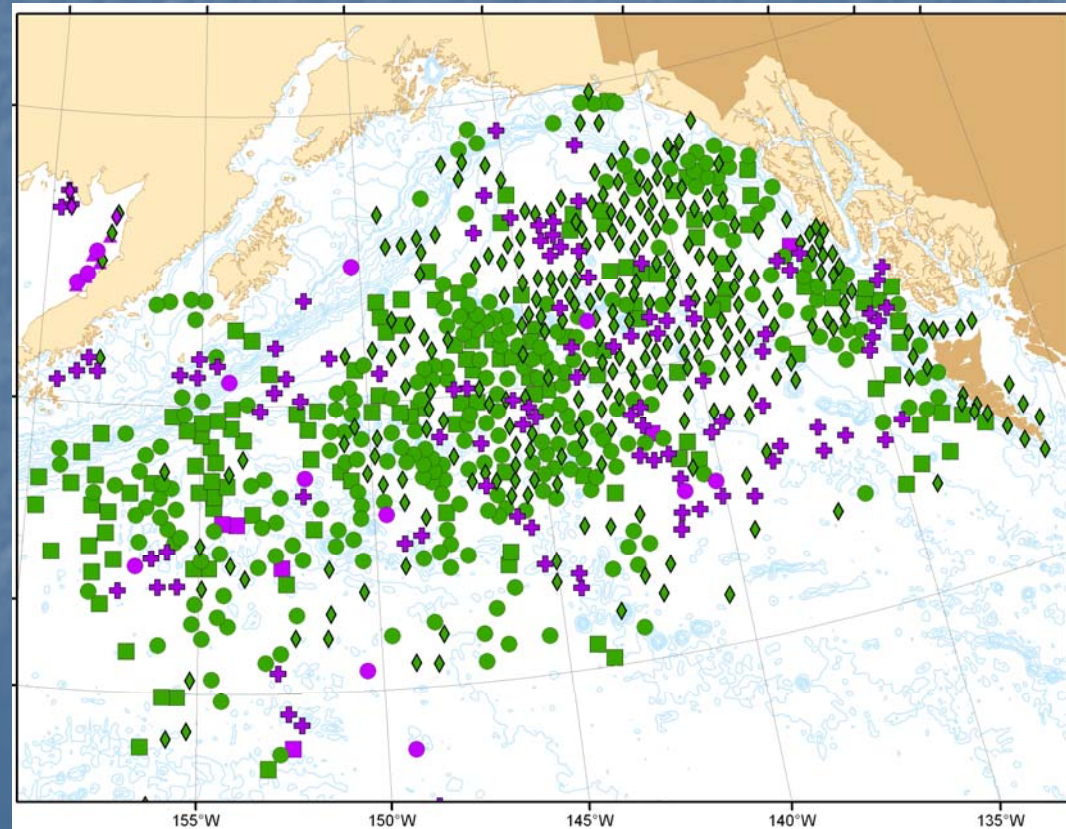
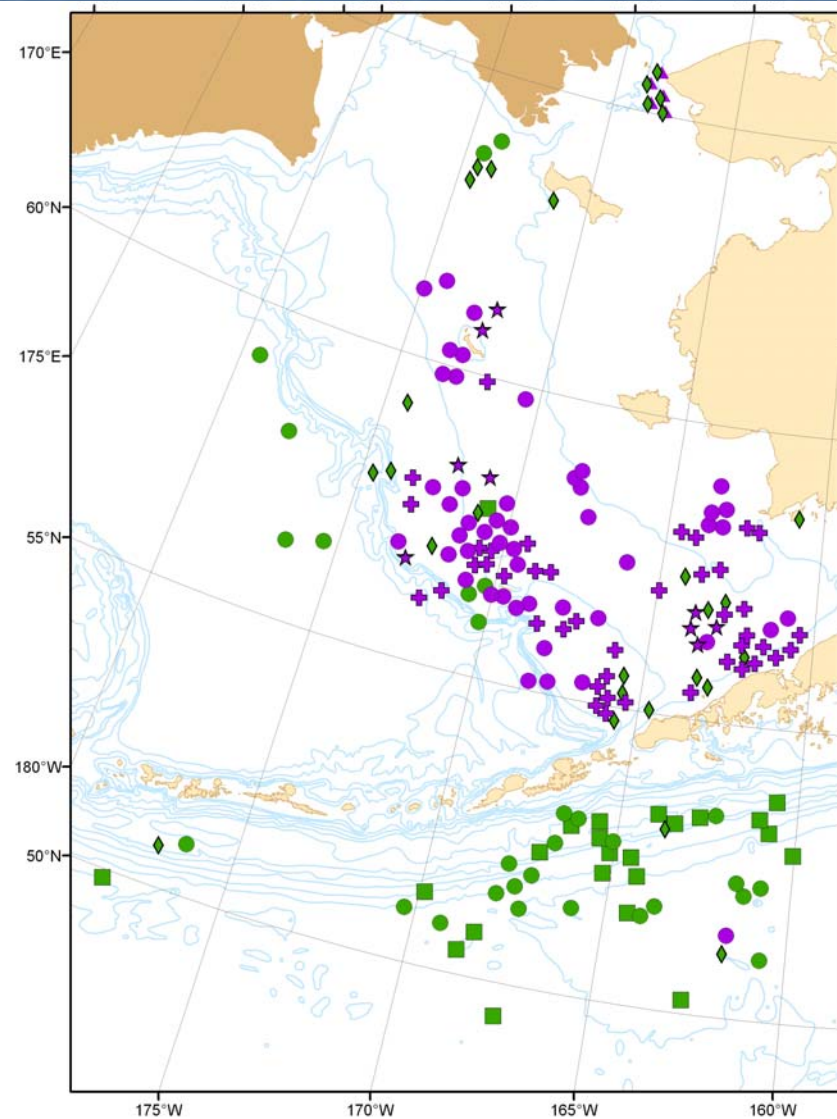
Townsend 1839-1904

2,118 whales caught N of 40°N;
90% by 1859

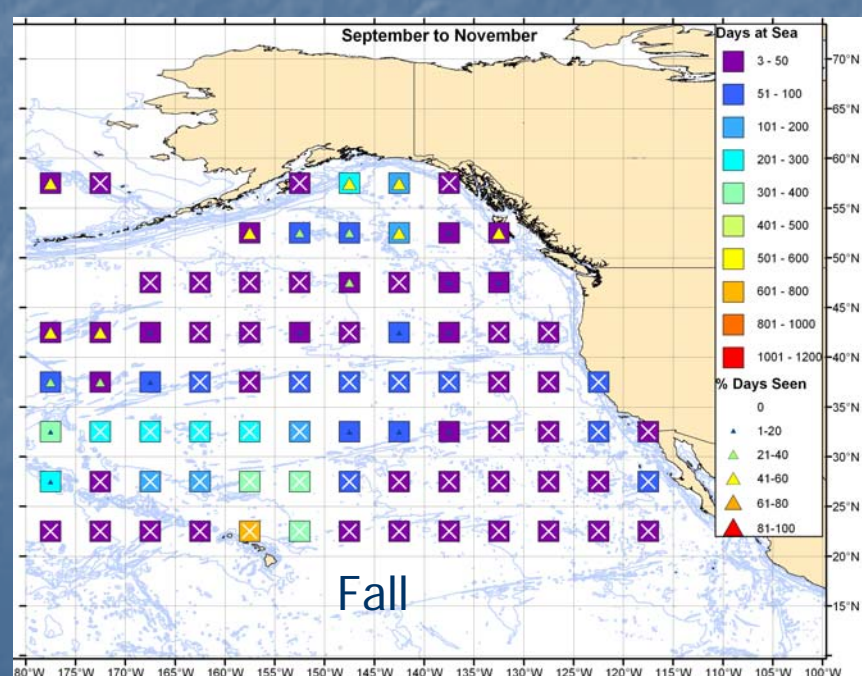
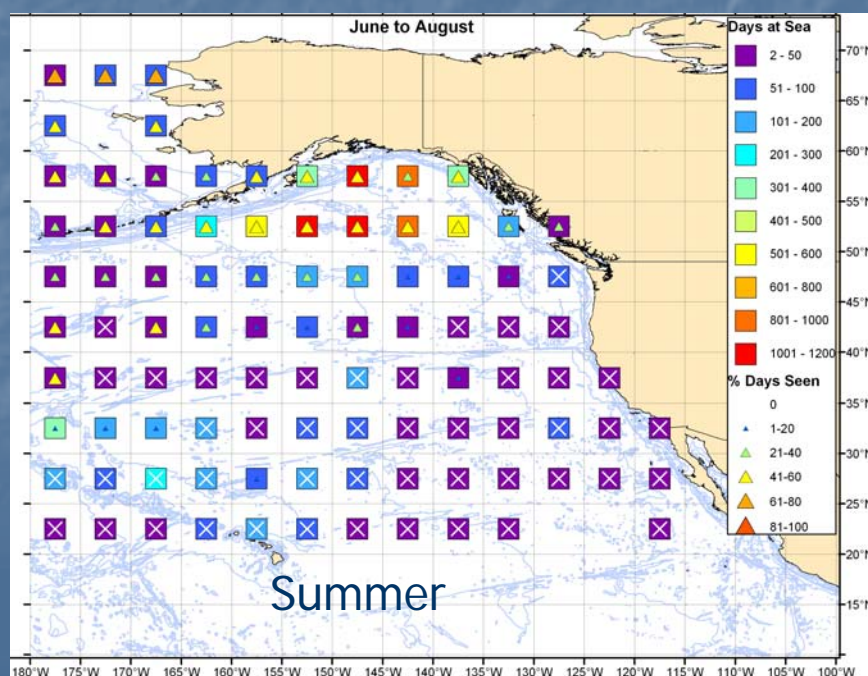
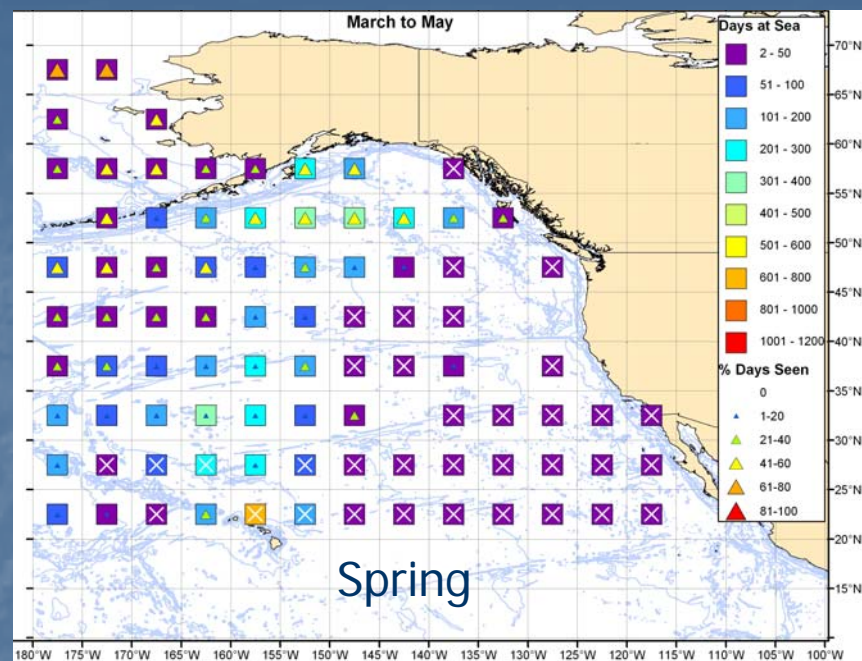
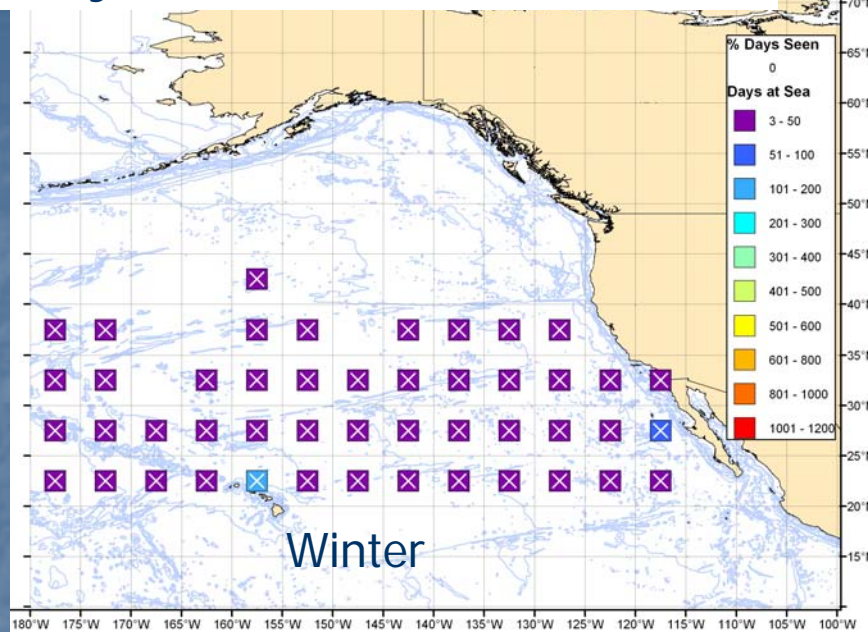
1,018 digitized points E of 180

Green = April-July

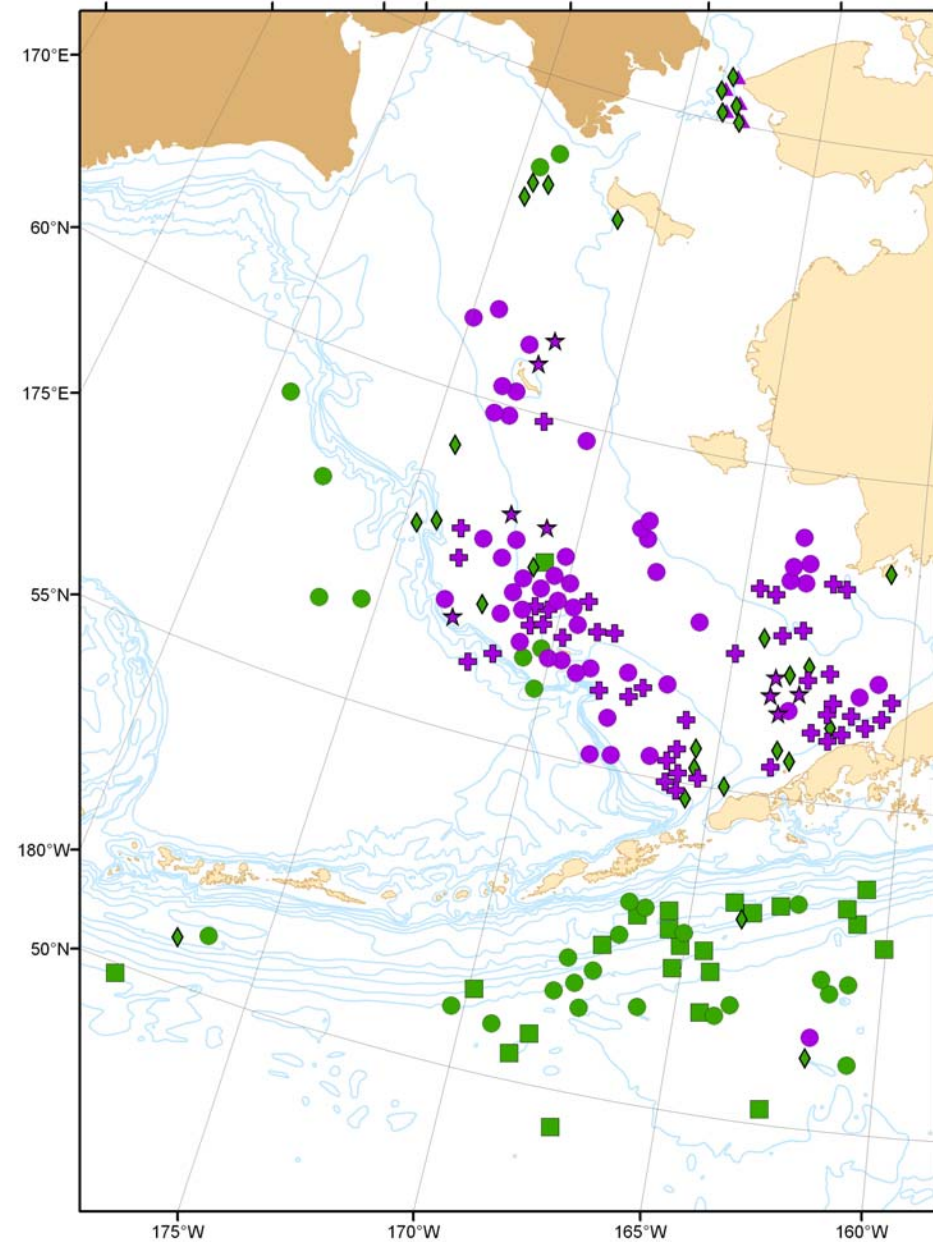
Purple = August-October



Maury (1852): Effort 1835-1852



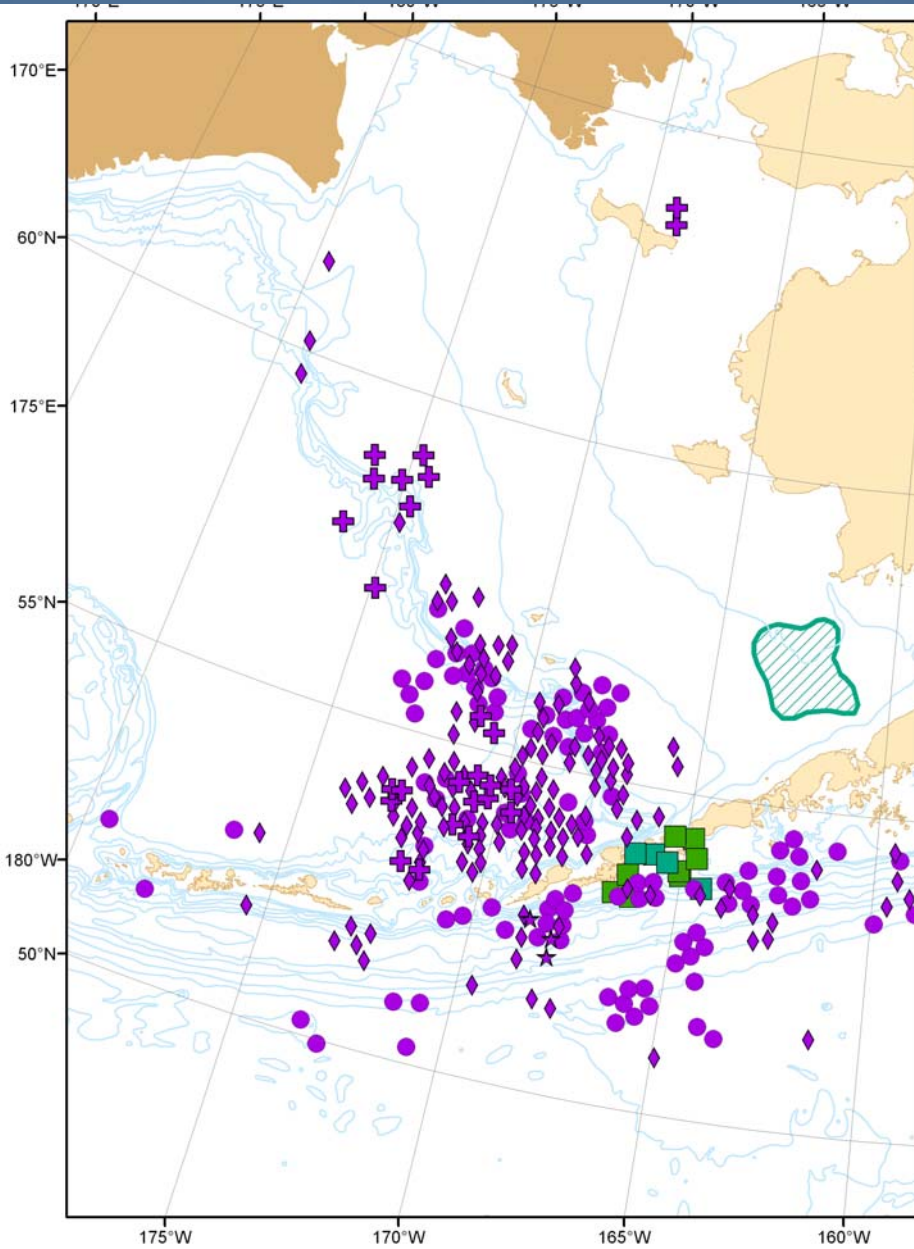
Townsend 1839-1904: Bering Sea & Aleutians



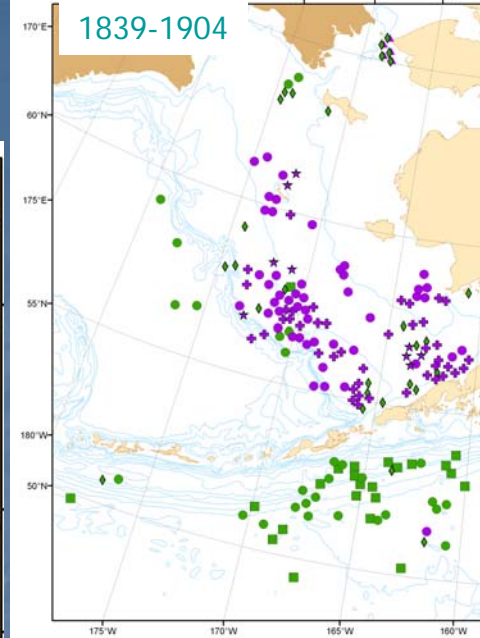
Shelf waters & late summer

Slope/abyssal plain & early summer

1924 to 1967

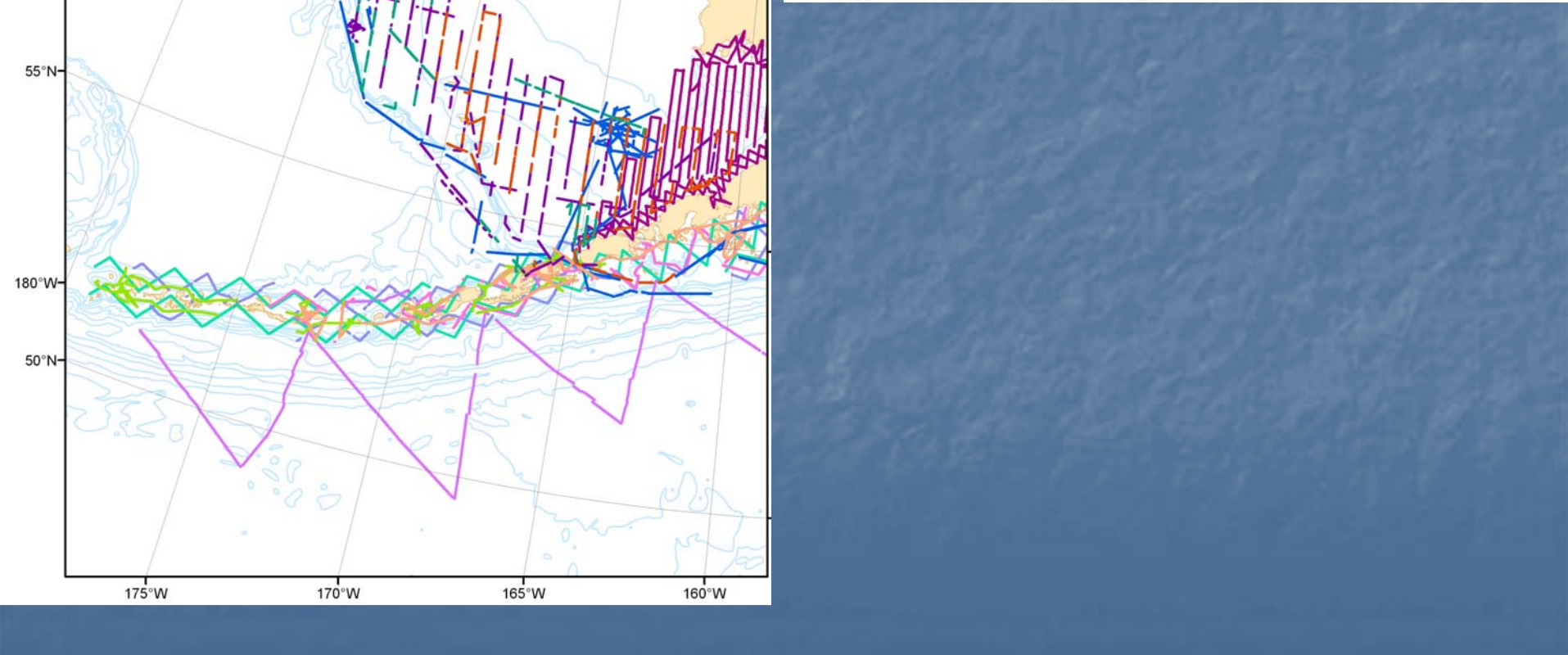
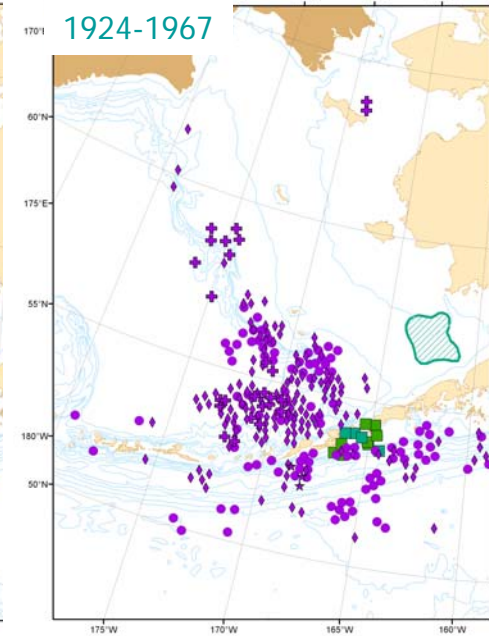
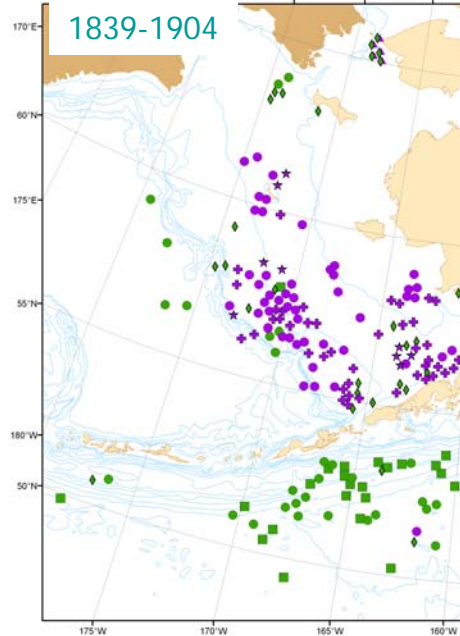
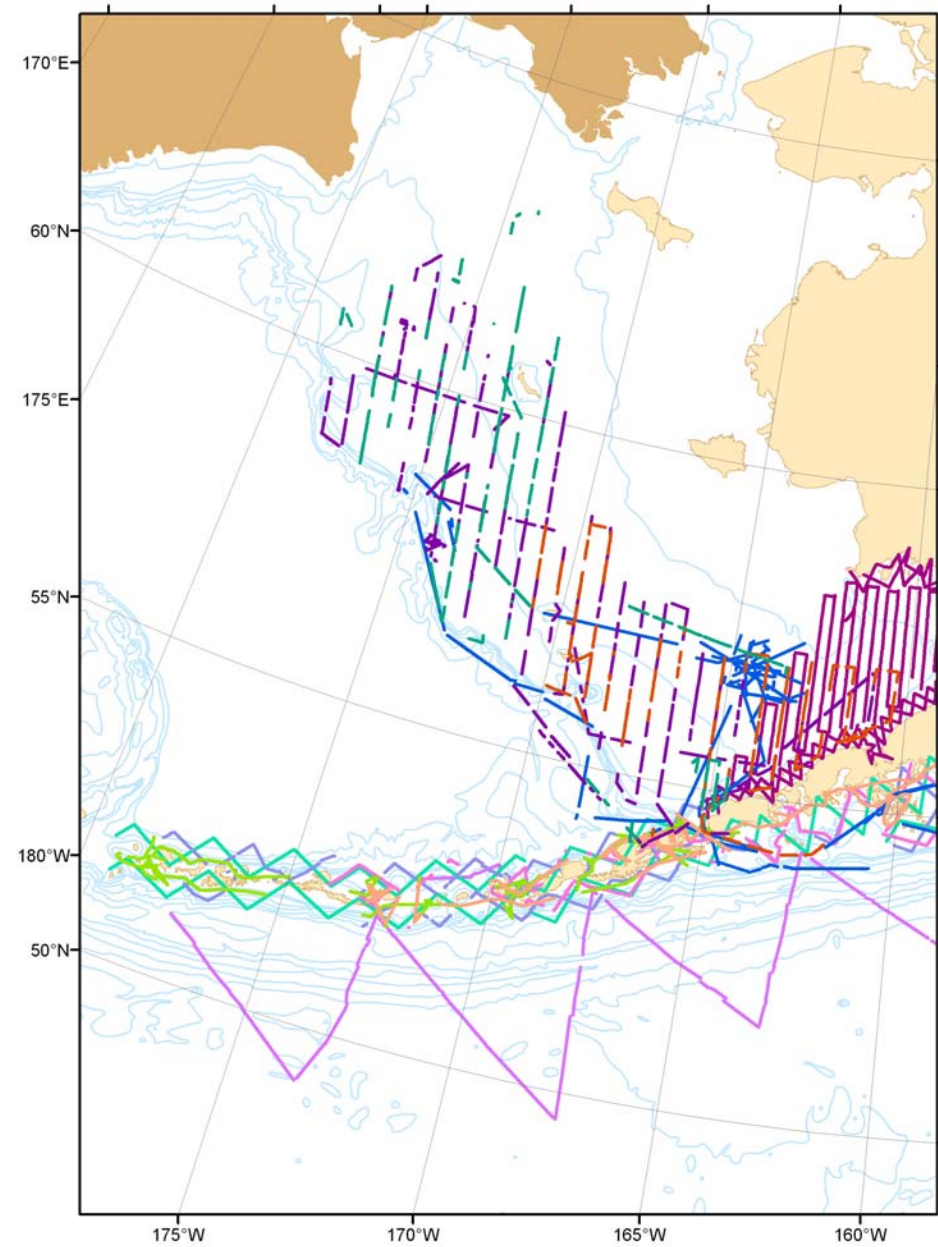


1839-1904

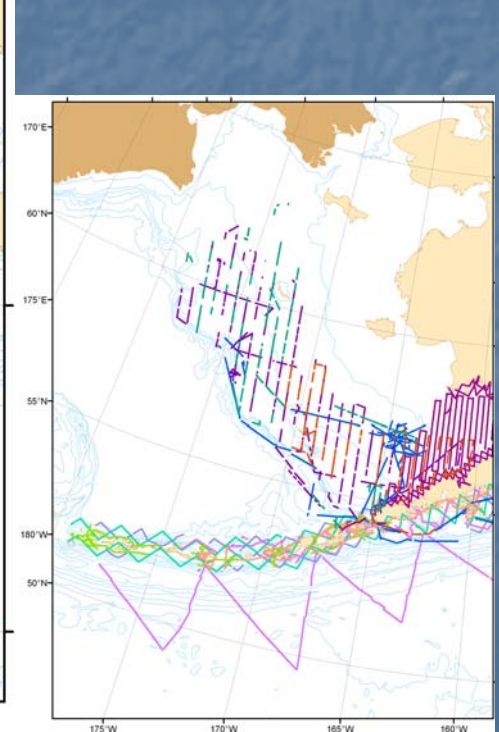
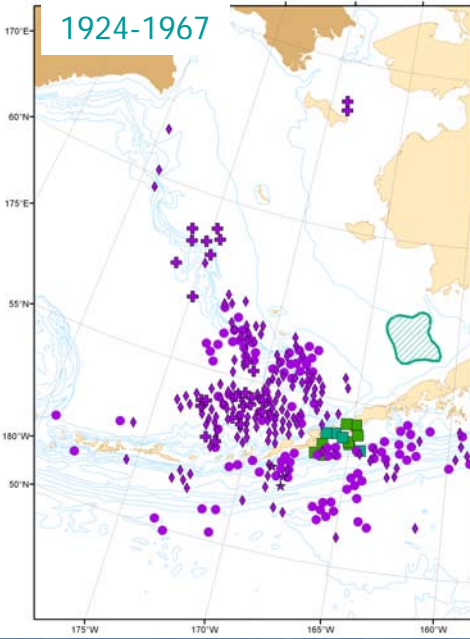
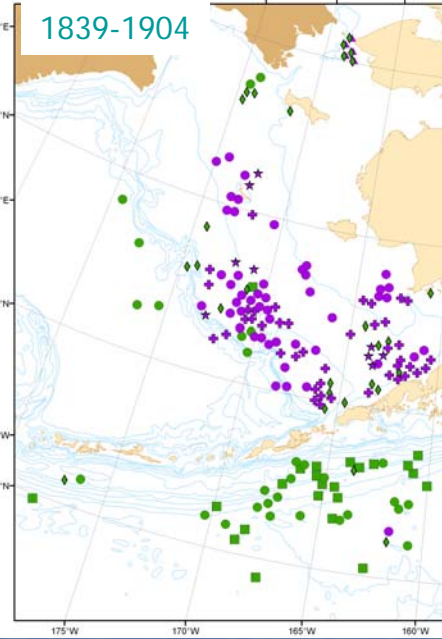
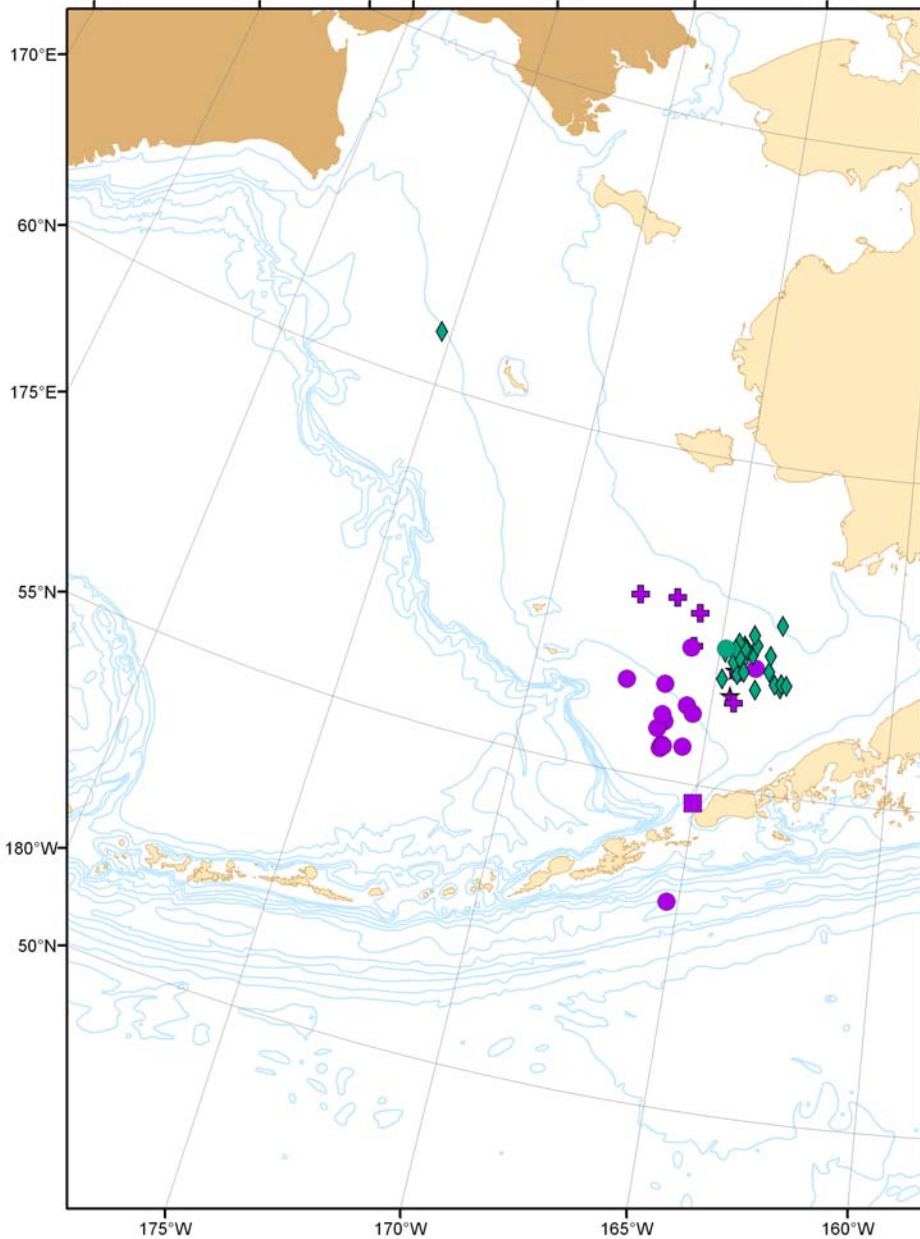


>Number in slope waters of Bering Sea

Effort: 1982 to present



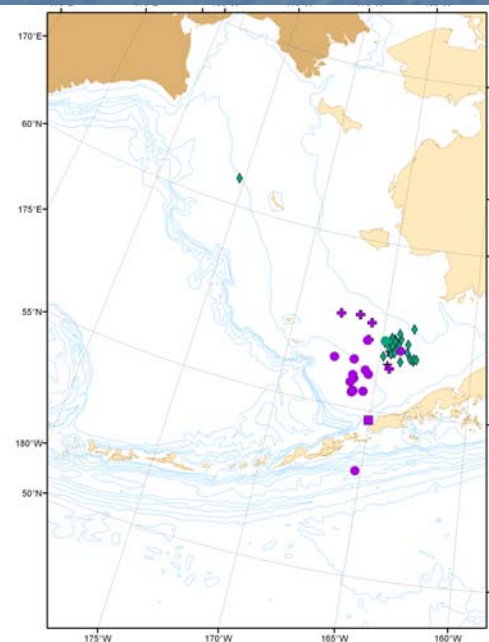
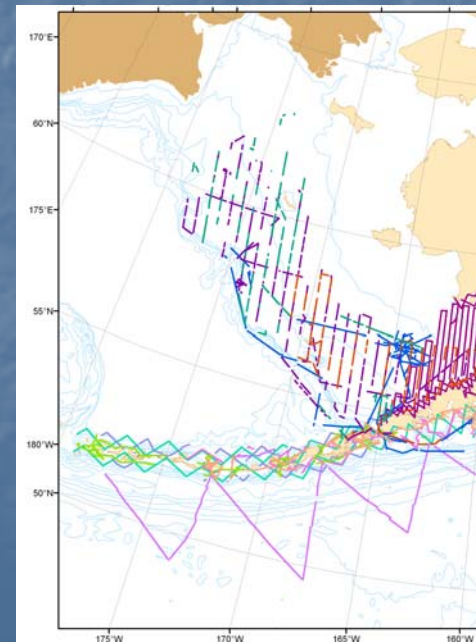
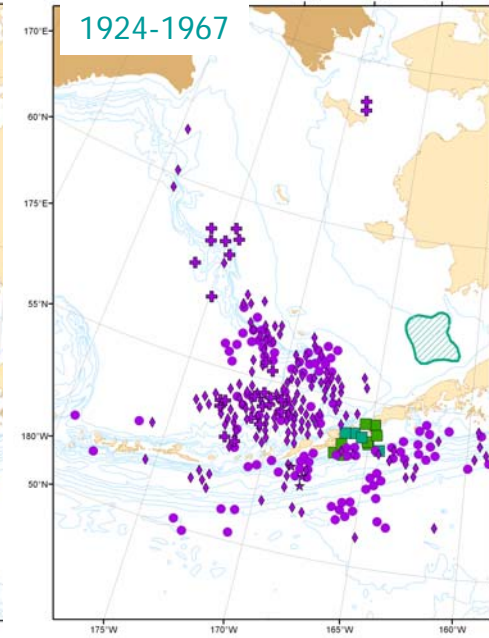
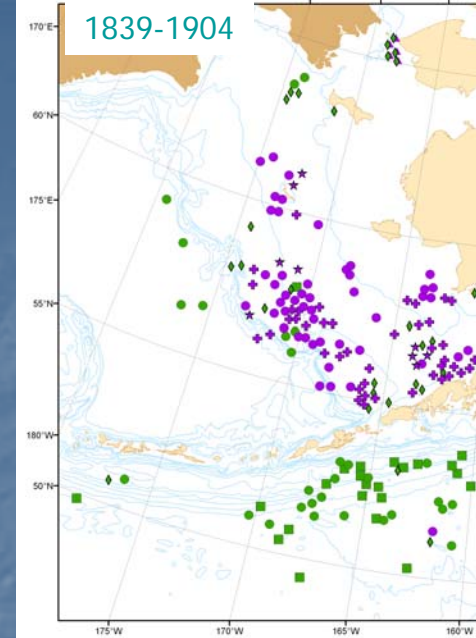
Sightings: 1982 to present



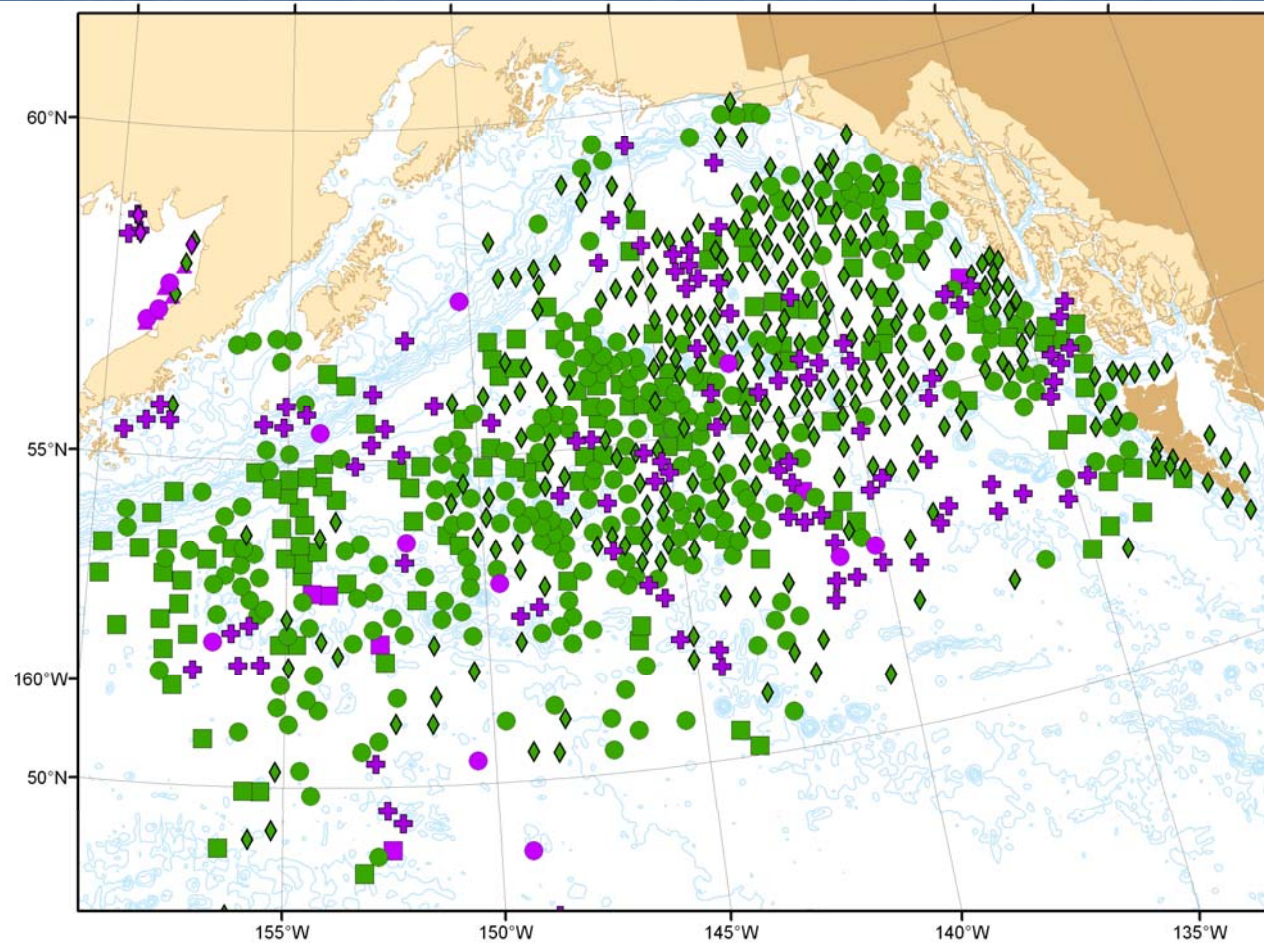
Summary: Bering Sea & Aleutians

Still found in shelf waters

Not associated with a particular bathymetric feature in the past



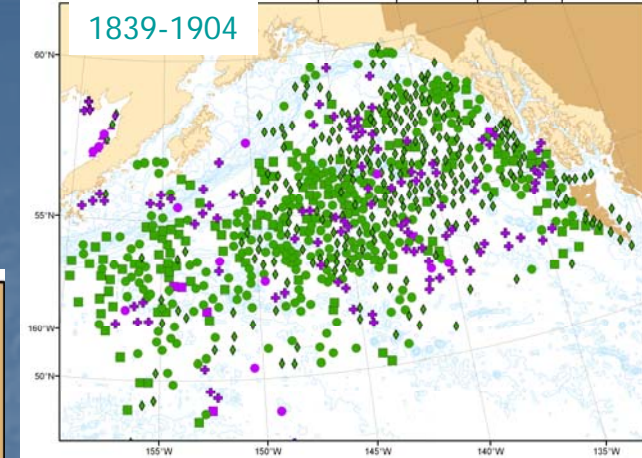
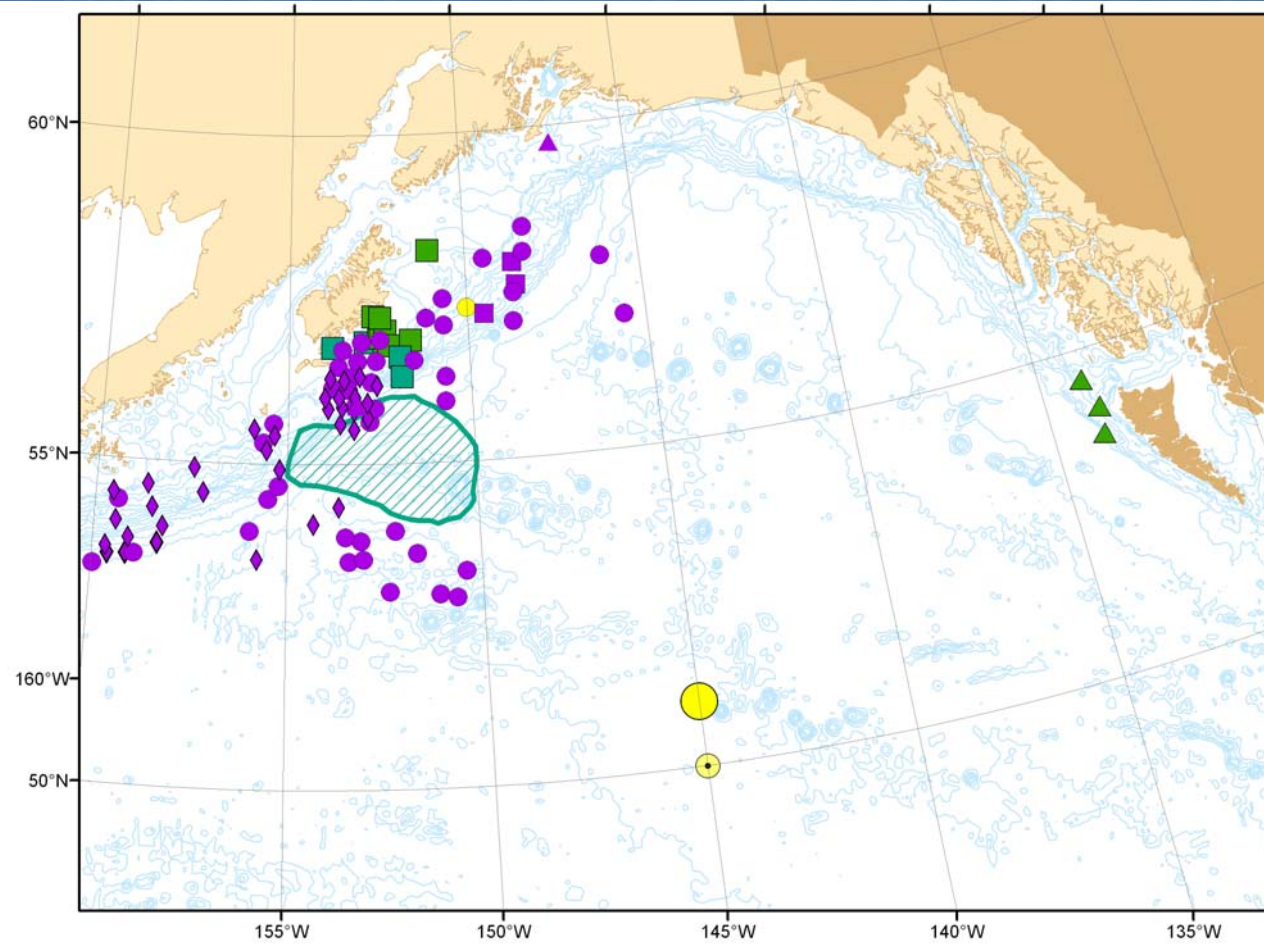
Townsend 1839-1904: Gulf of Alaska



Green = April-July

Purple = August-October

1924 to 1967

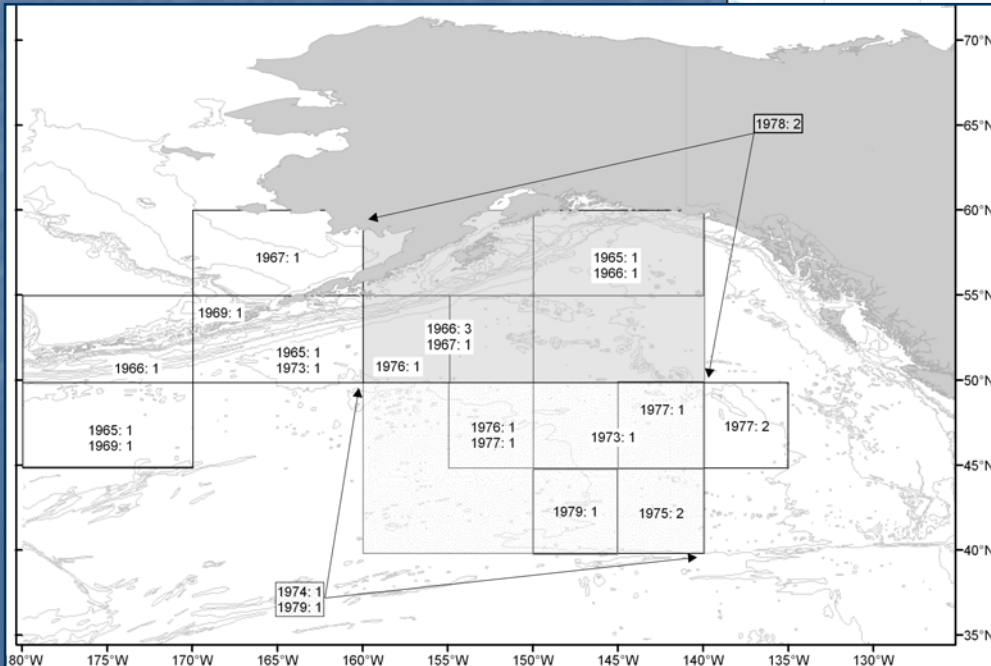
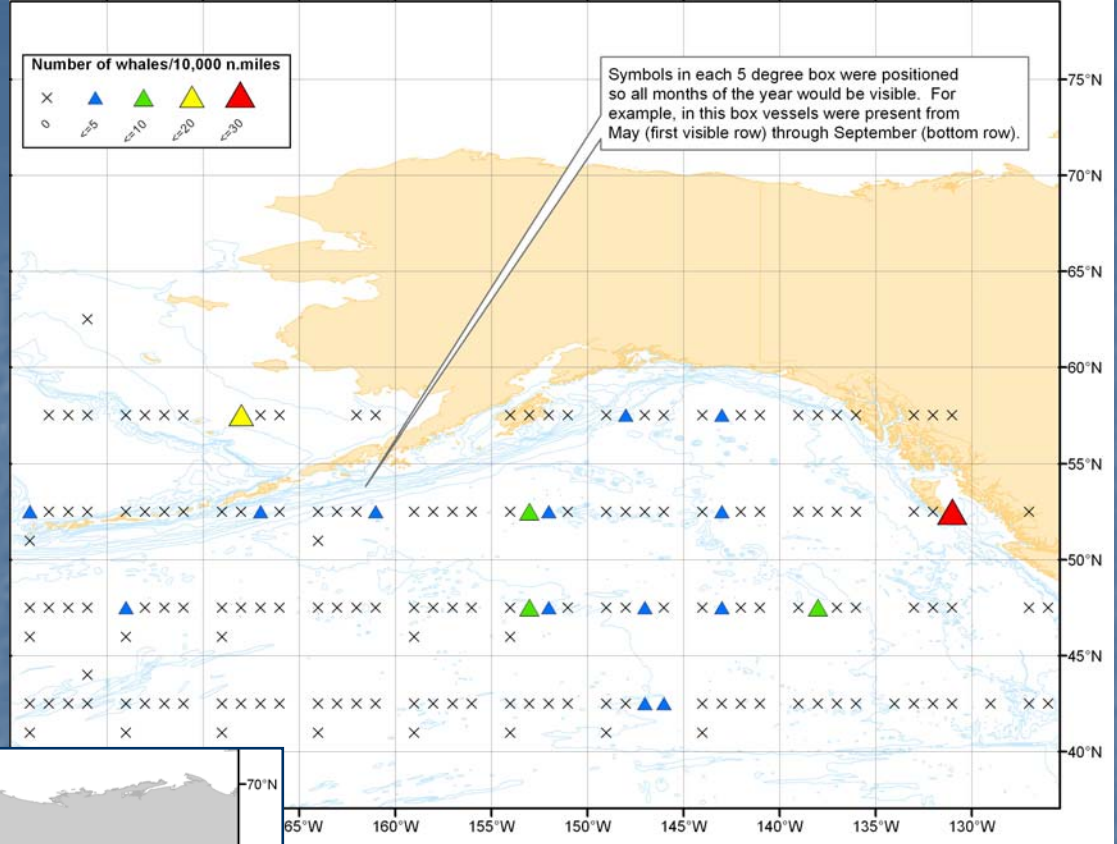


Most sightings were peripheral to the Townsend whaling data

Japanese Effort Data

1964-1990:

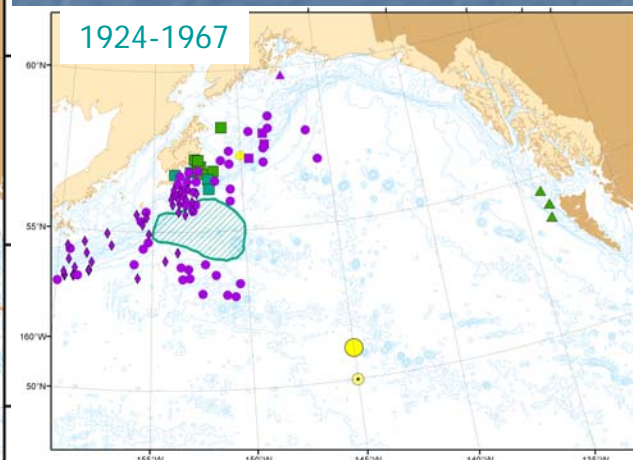
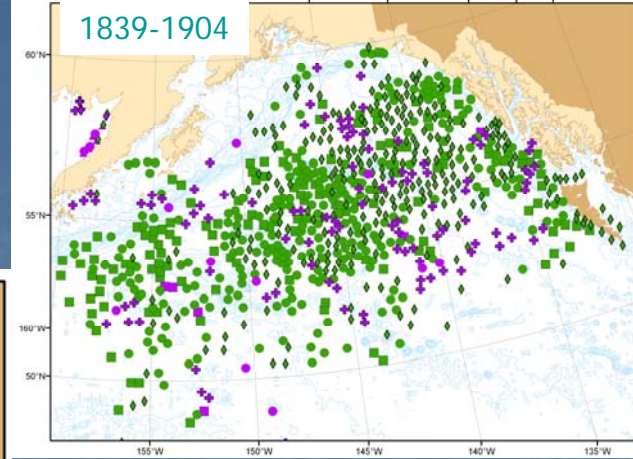
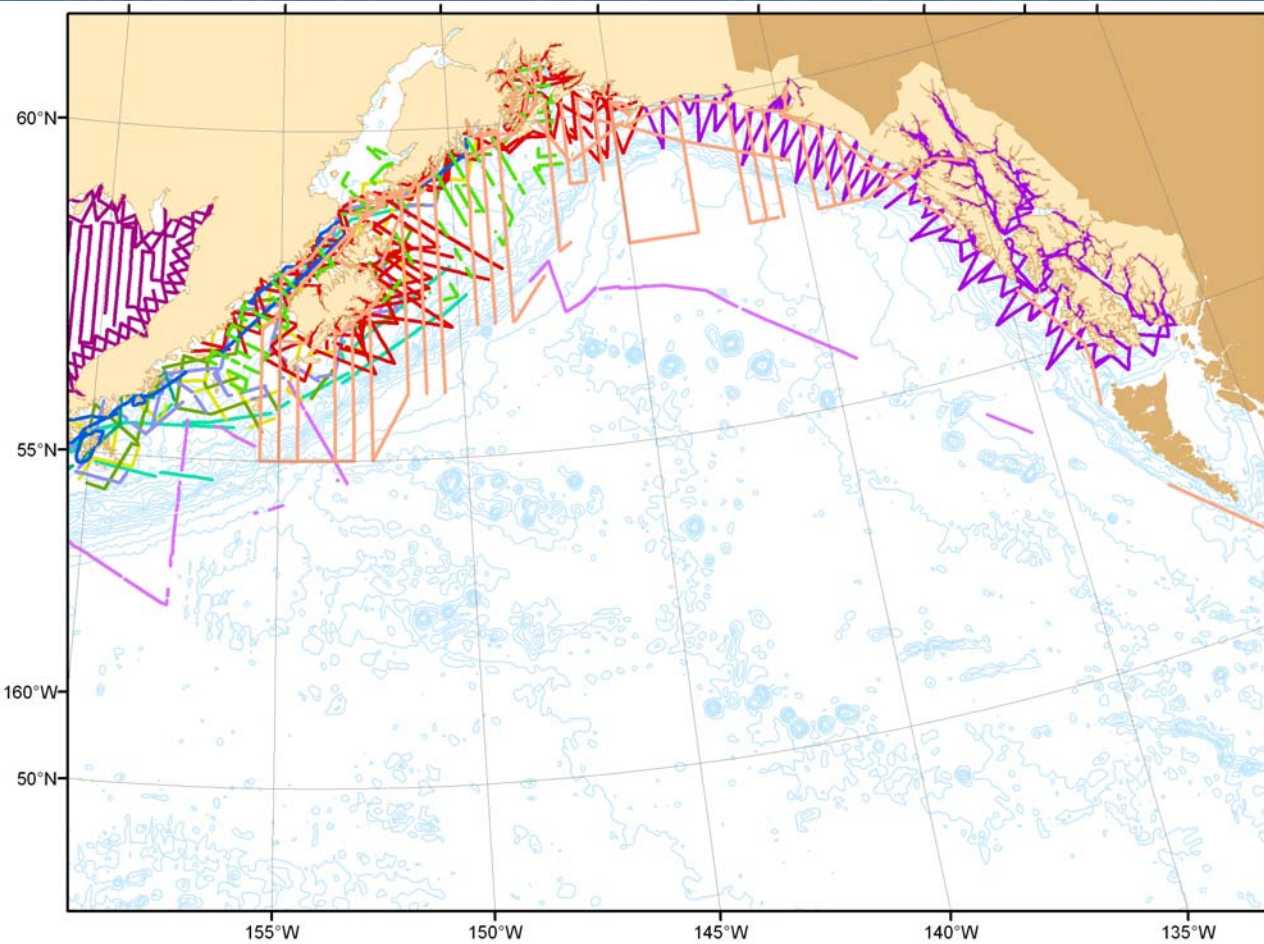
X = no right whales found in that month



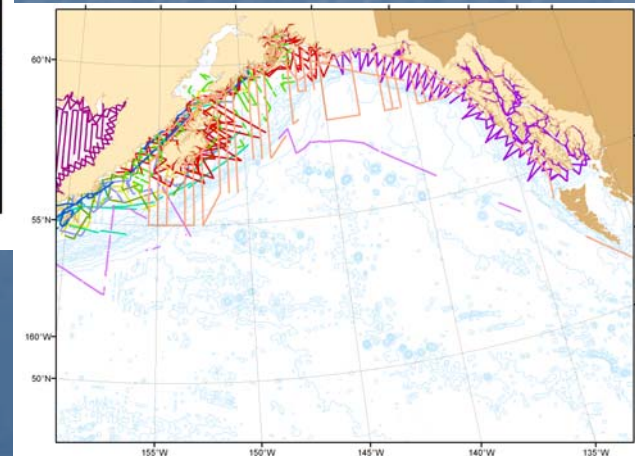
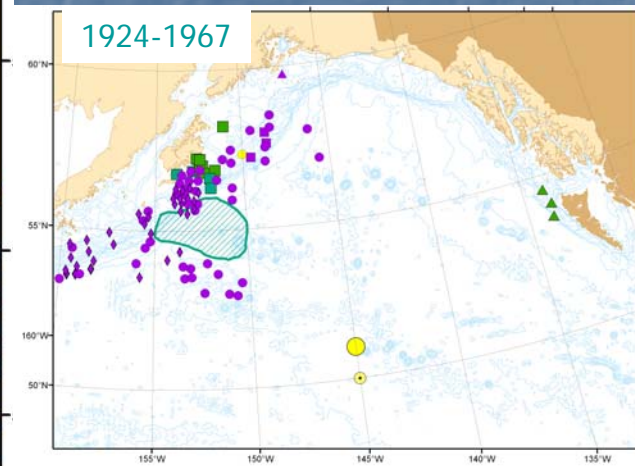
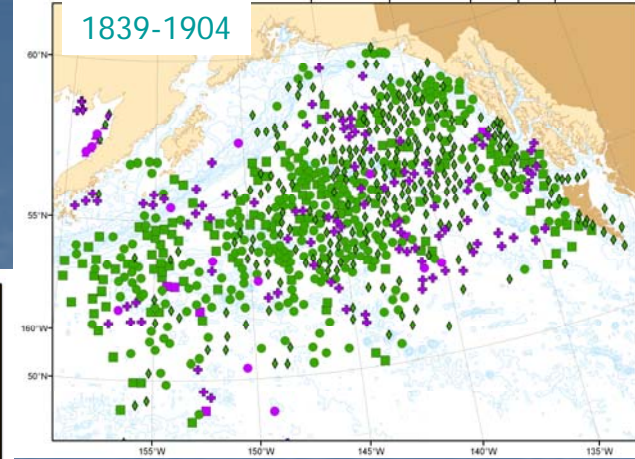
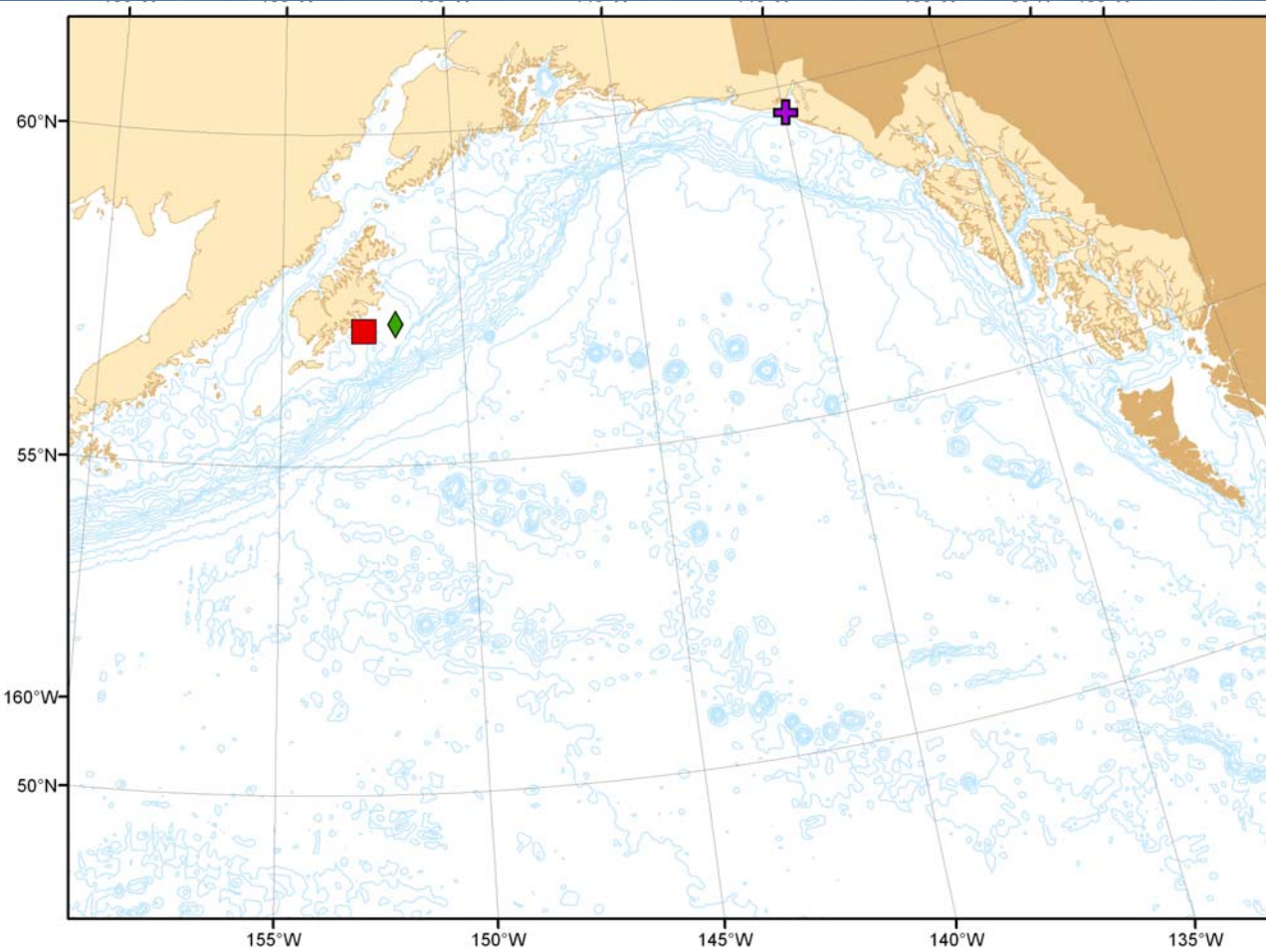
1965-1979:

Only 1-2 sightings/year/block

Effort: 1979 to present



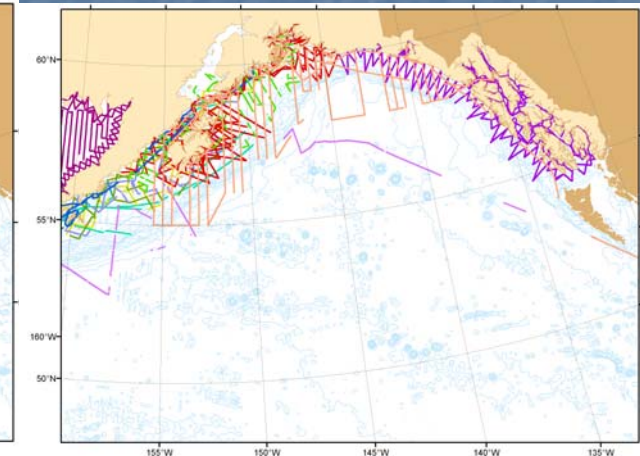
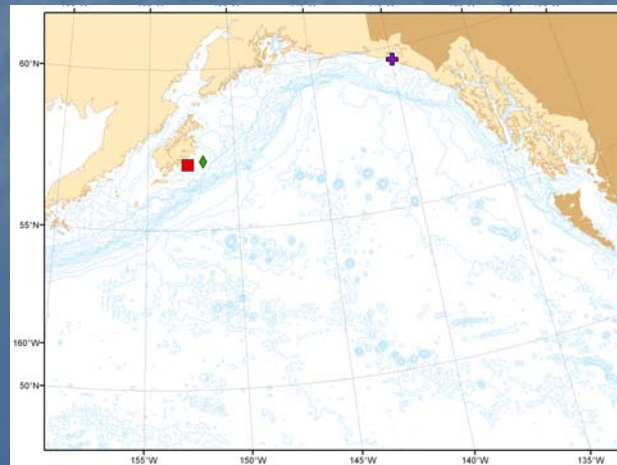
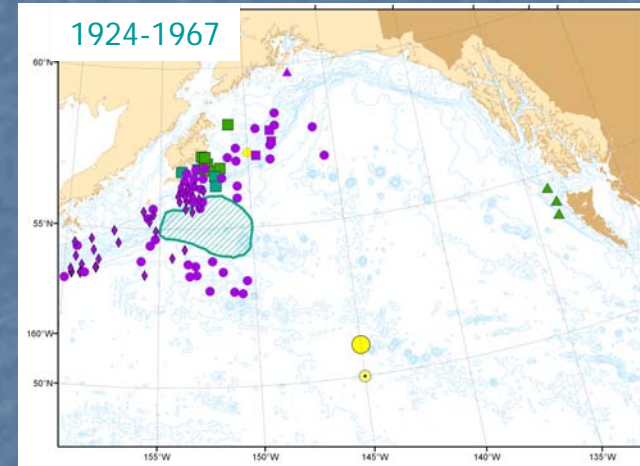
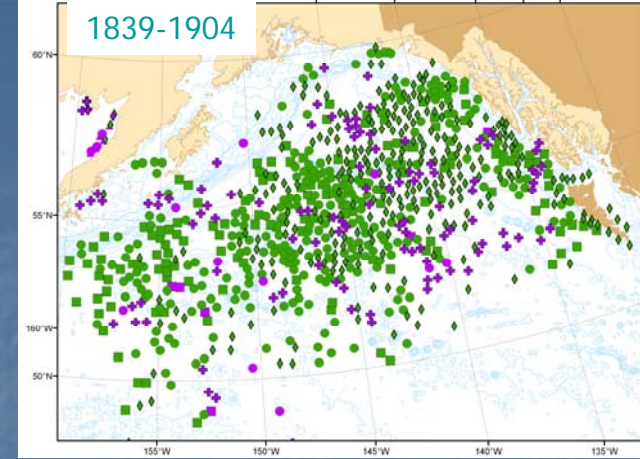
Sightings: 1979 to present



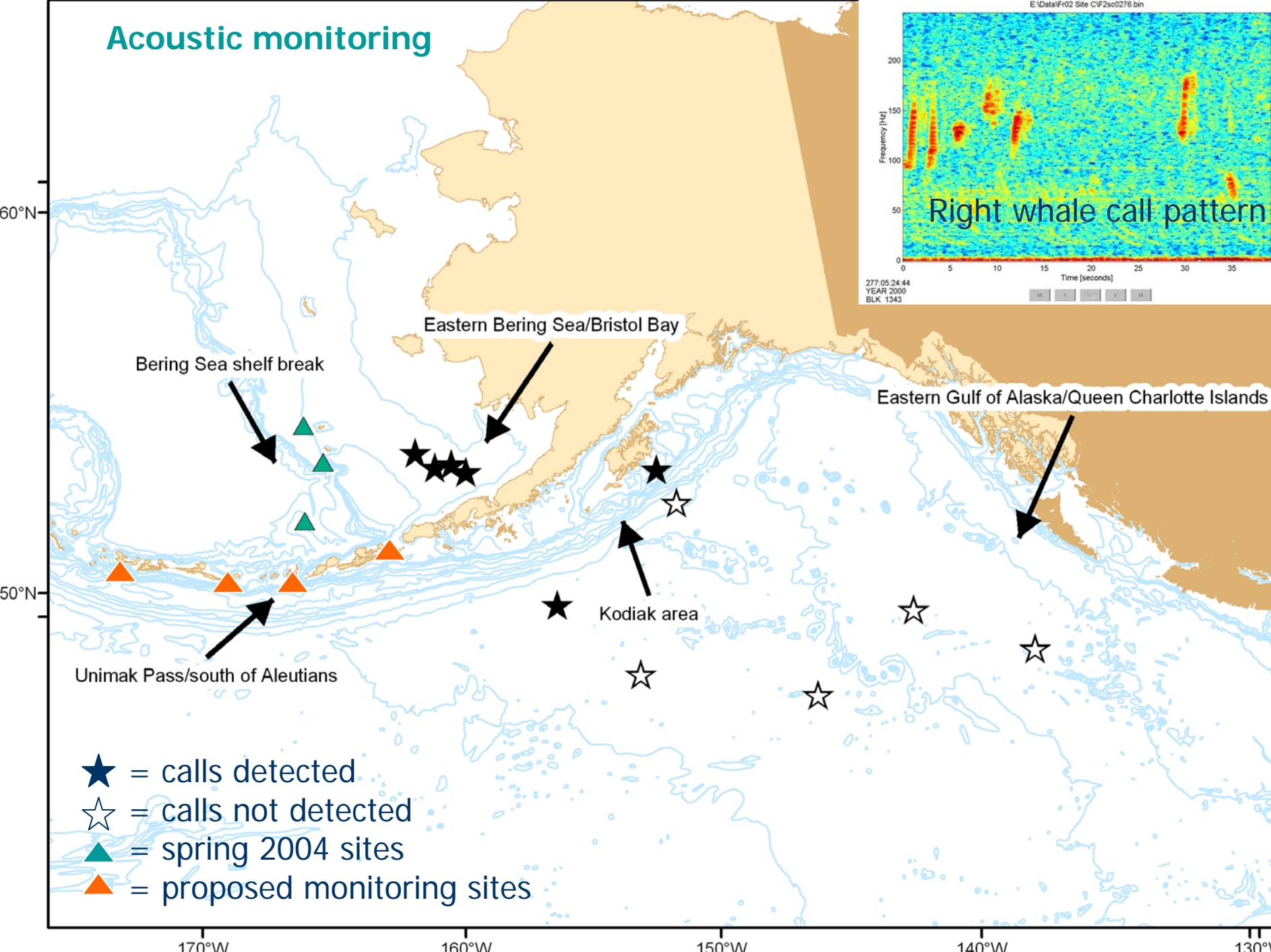
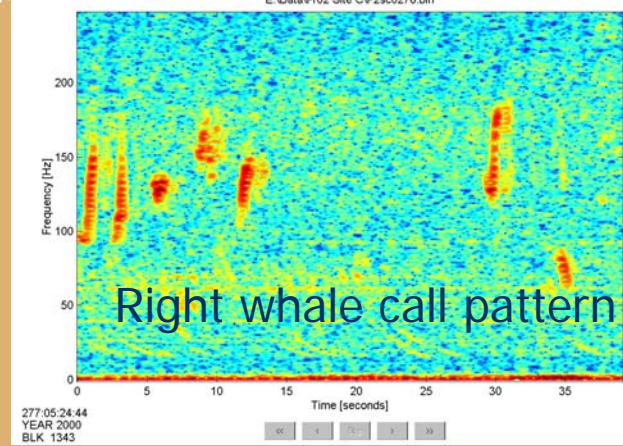
Summary: Gulf of Alaska

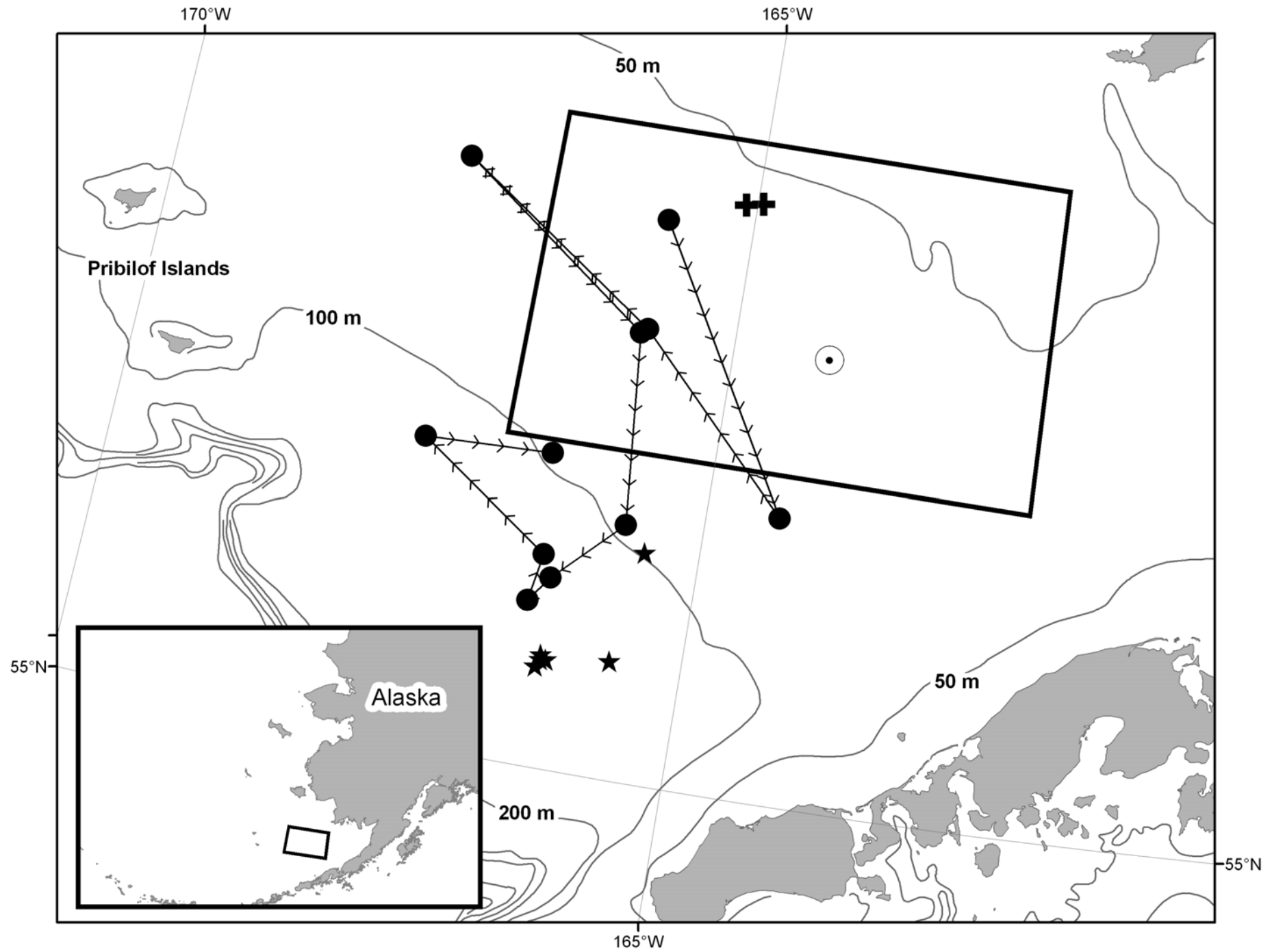
Shelf and some slope waters well surveyed

Are we looking in the “right” places?



Acoustic monitoring





One question remains:

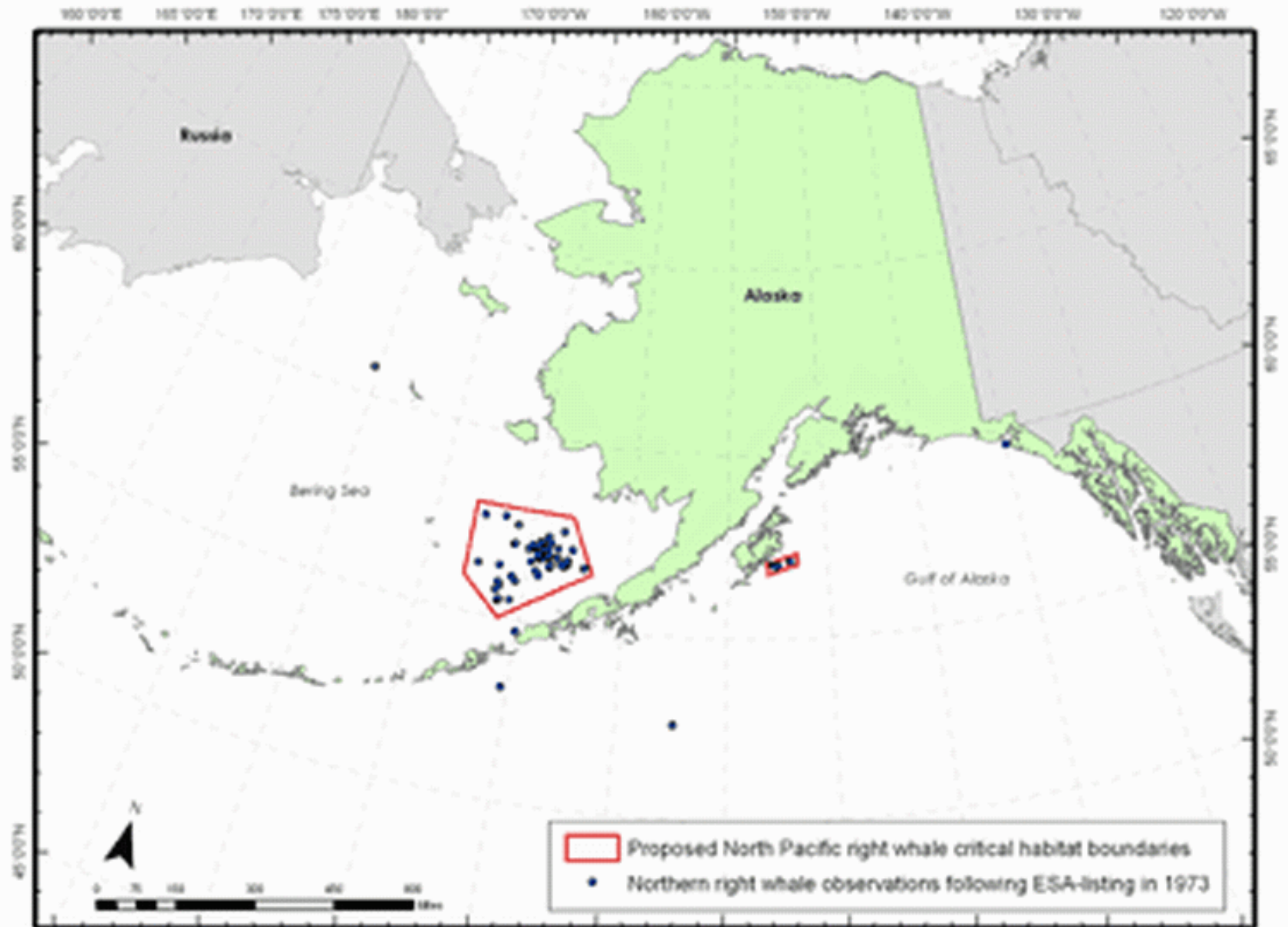
Where are the calves and nurseries?



Possibility of "northern" calving grounds?

What drives distribution?



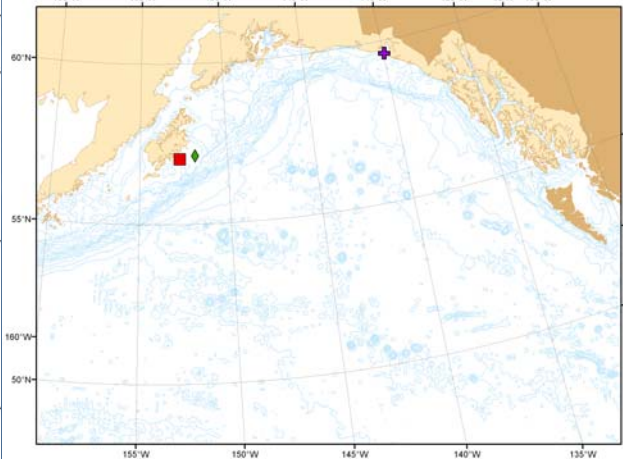
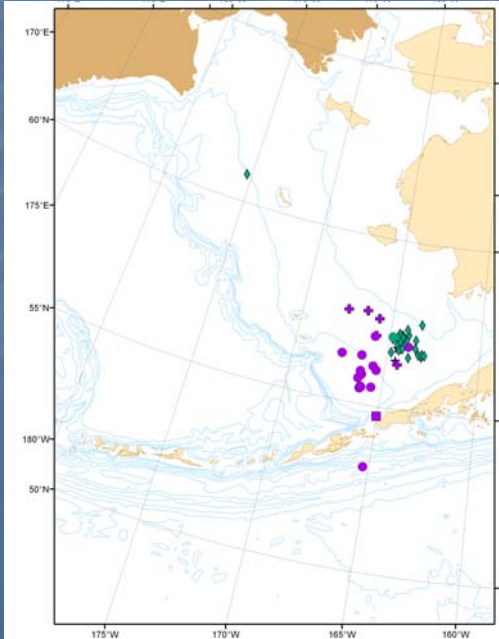
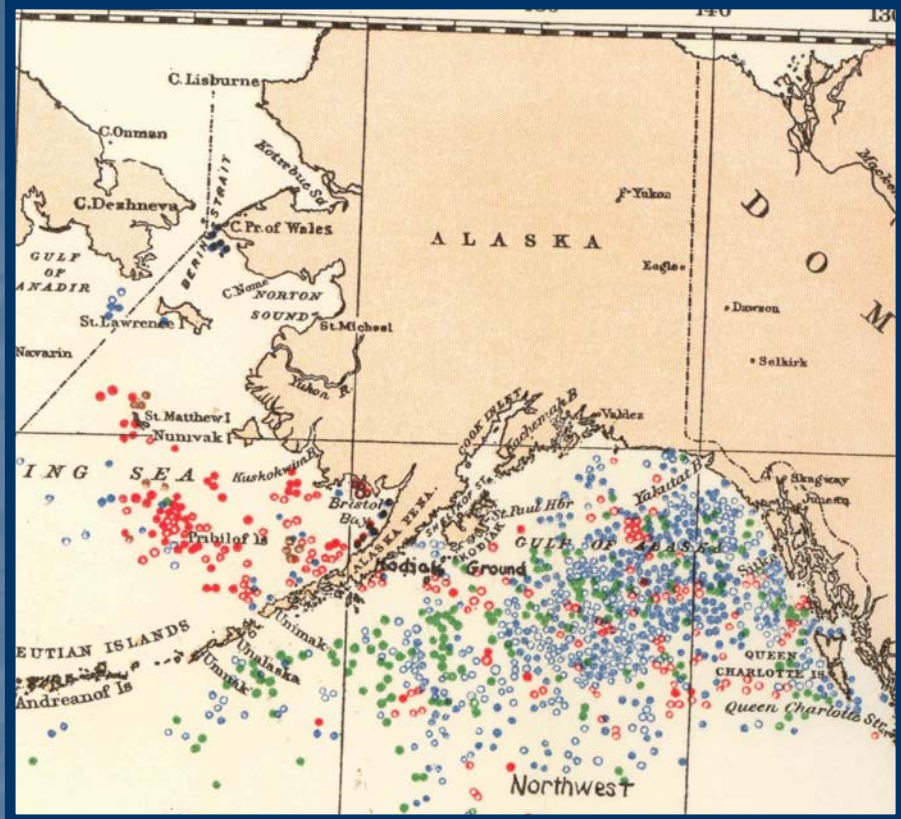


Proposed critical habitat for Northern right whales in the North Pacific.



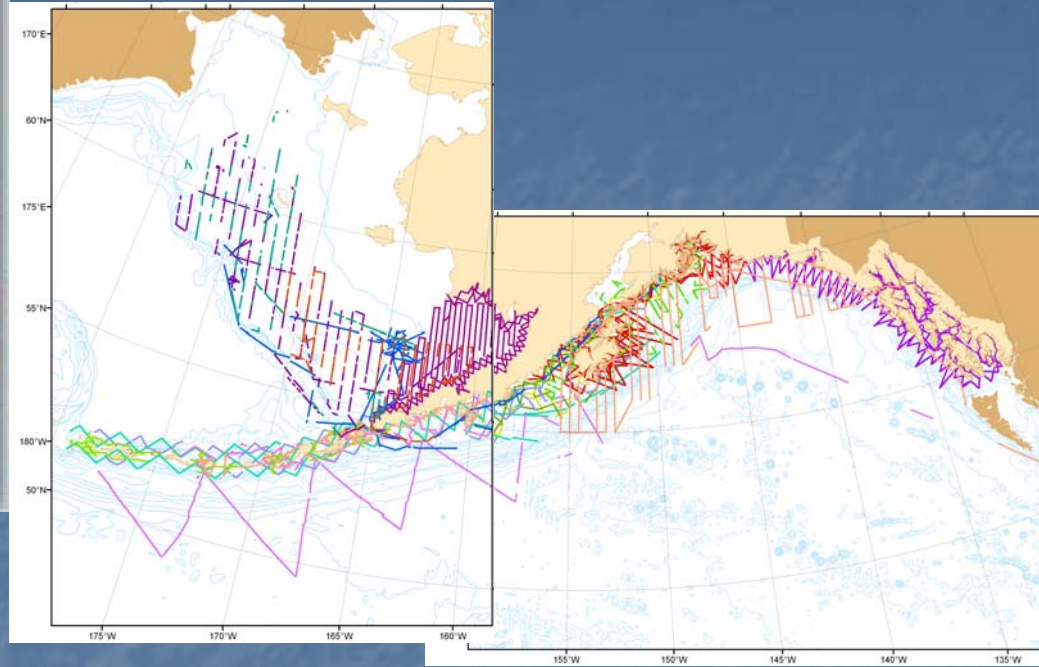
Conclusions:

- Once abundant, now rare



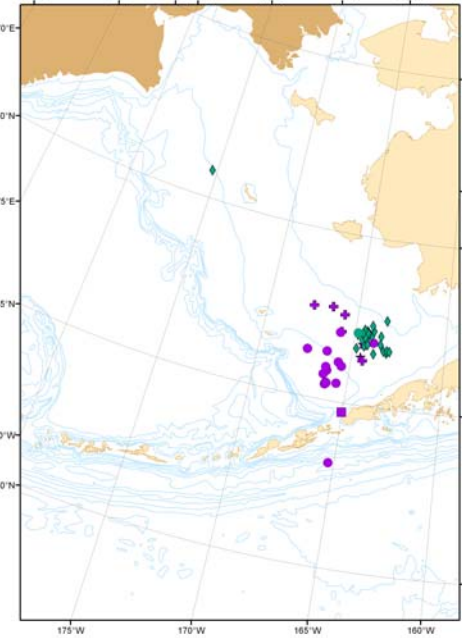
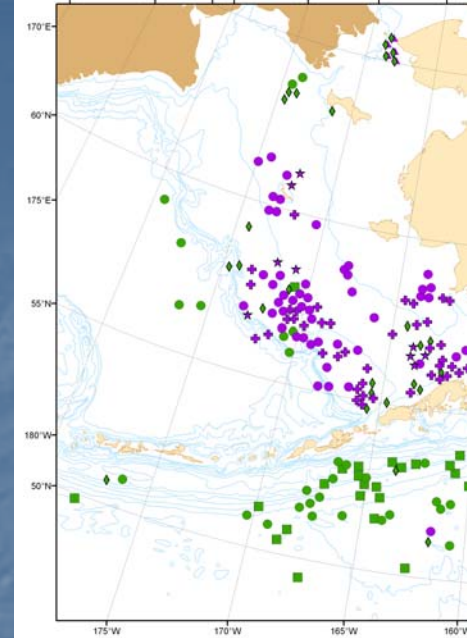


- Once abundant, now rare
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- Once abundant, now rare
- Since 1979, much of the effort has been focused over shelf waters
- As in the past, still occupy the Bering Sea from April – November





Conclusions:

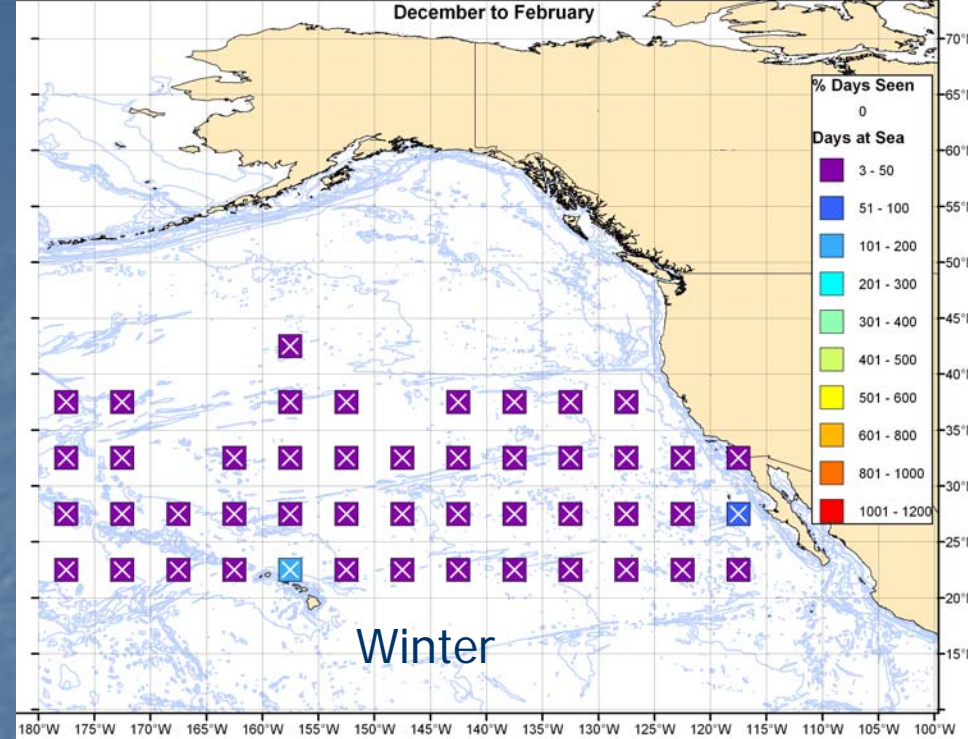
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- More data needed on right whale prey





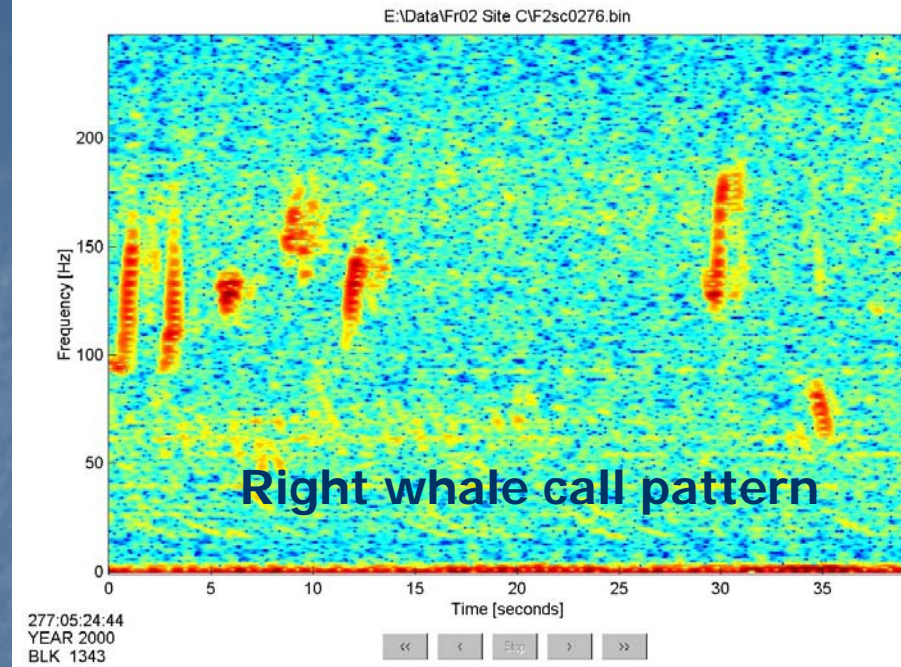
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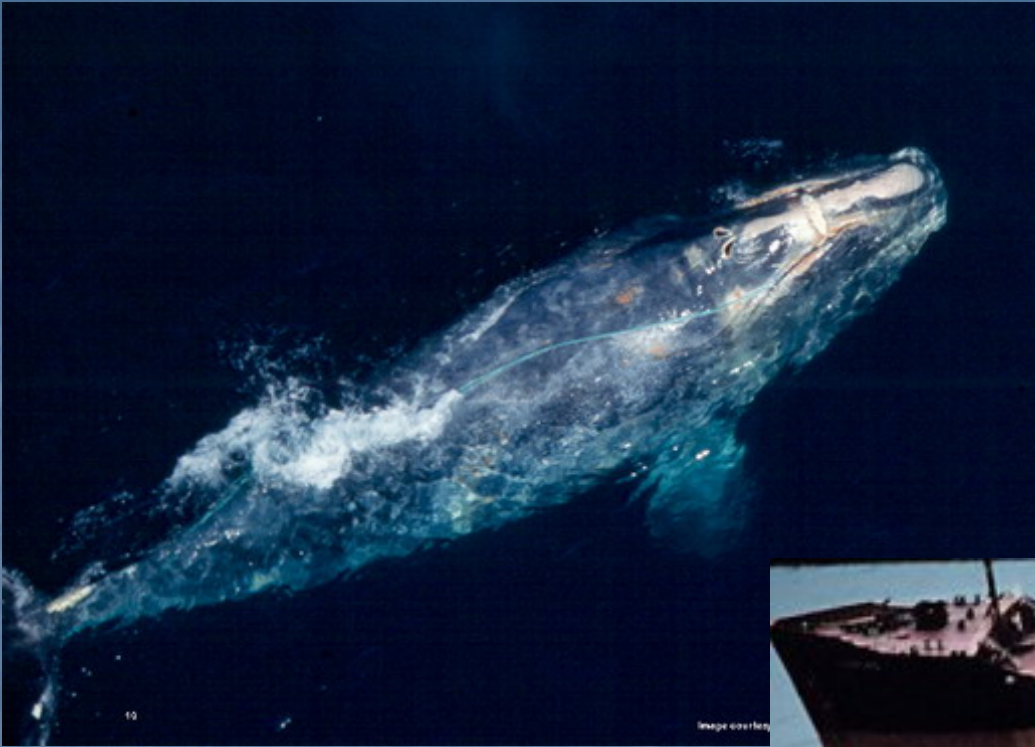




- Once abundant, now rare
- Since 1979, effort has been focused over shelf waters
- As in the past, still occupy the Bering Sea from April – November
- More data needed on right whale prey
- Calving areas?
- Acoustic monitoring an important first step



Threats



1 entanglement
0 ship strikes
but...
...minimal effort



Marilyn Marx/CCS