



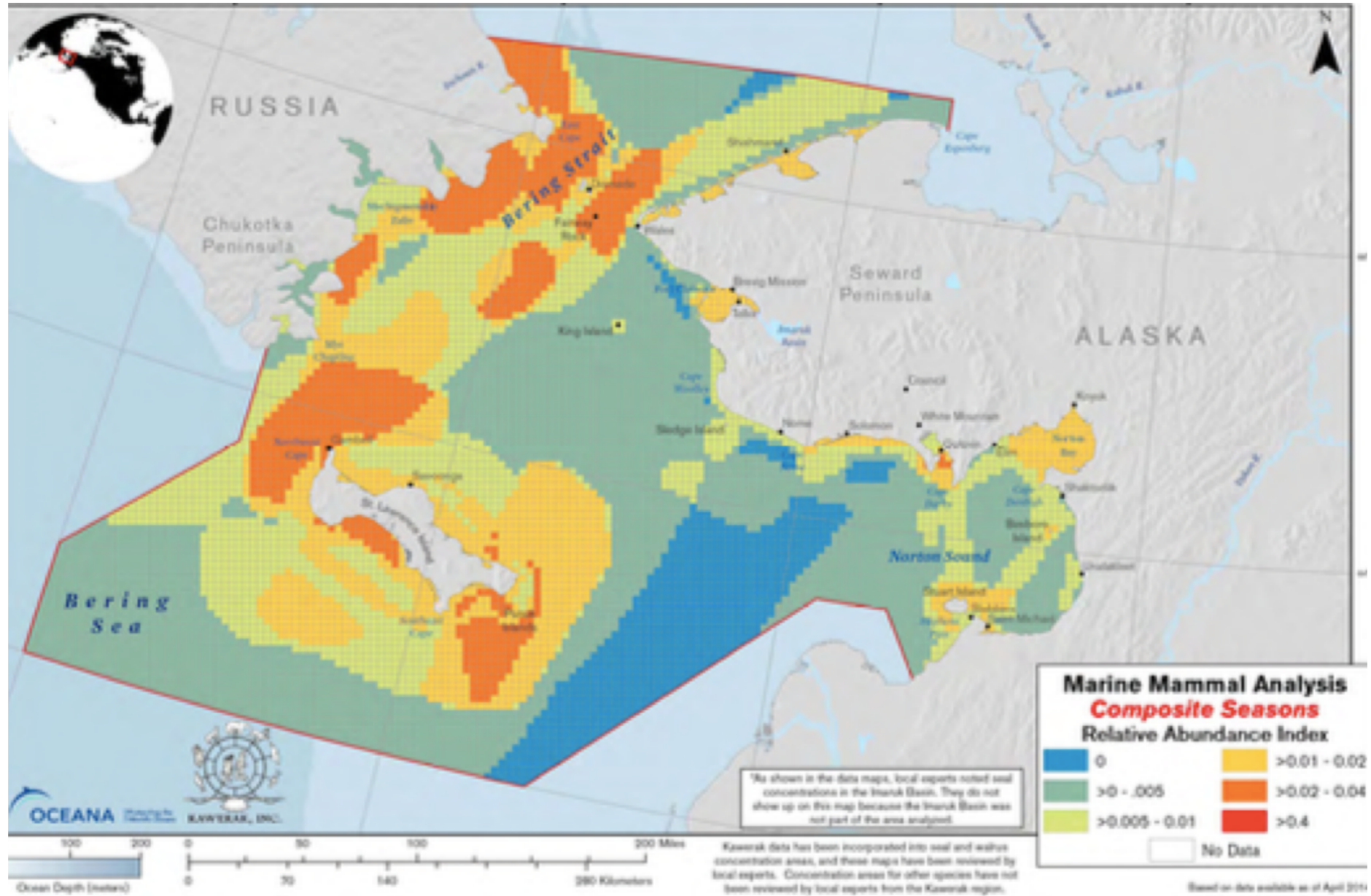
# Cross-scale co- management successes in the Bering Strait Region

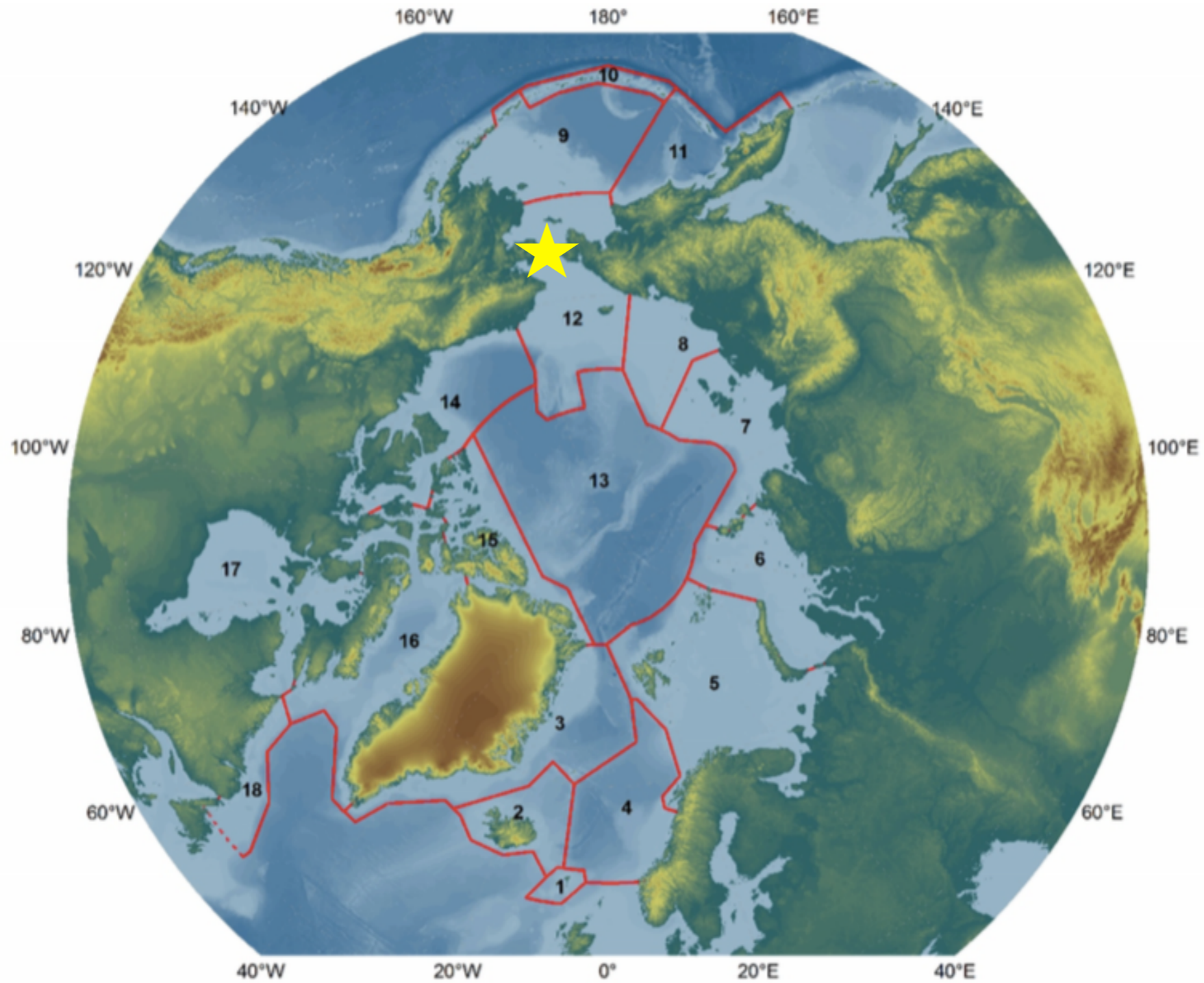
*Ecosystem Approach to Management of Arctic  
Ecosystems: Status of Implementation  
Session IV. Case studies- Steps toward  
Implementation  
Kelsey Aho  
24 August 2016*

# Bering Strait Region

## Southern portion of LME #12: Northern Bering Chukchi Seas

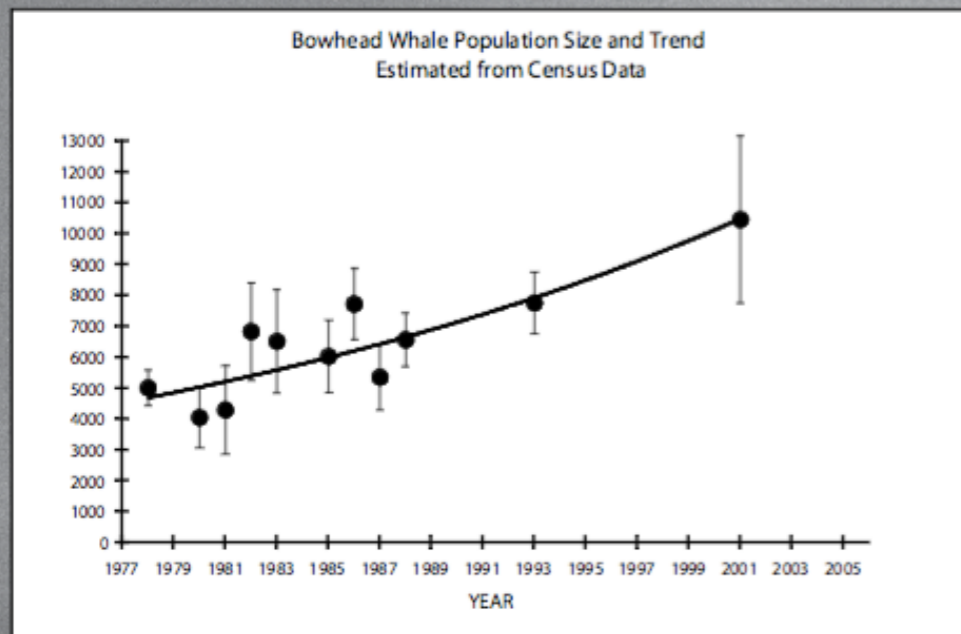
Kawerak, Oceana (2014) Bering Strait: Marine Life and Subsistence Use Data Synthesis



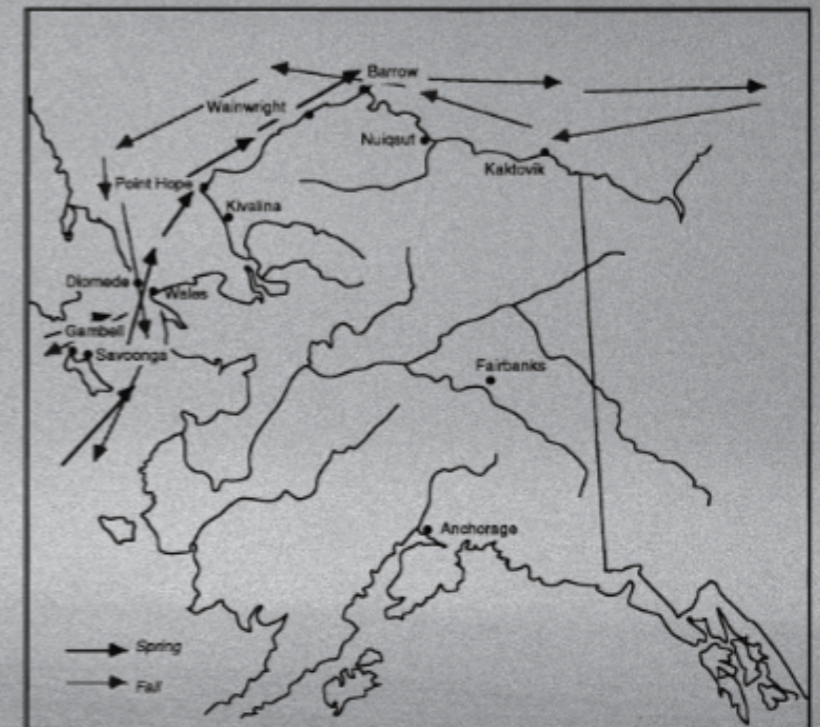


*This research evaluates if and how international agreements support the communities who depend on the transboundary Northern-Bering Chukchi Sea (LME #12) marine ecosystem.*

- Identify the ecosystem
- Describe the ecosystem**
- Set ecological objectives
- Assess the ecosystem**
- Value the ecosystem
- Manage human activities



Estimated bowhead whale population size and trend from surveys at Point Barrow from 1978 to 2001 conducted by the North Slope Borough and the National Marine Fisheries Service. The estimated rate of increase is about 3.4% per year.

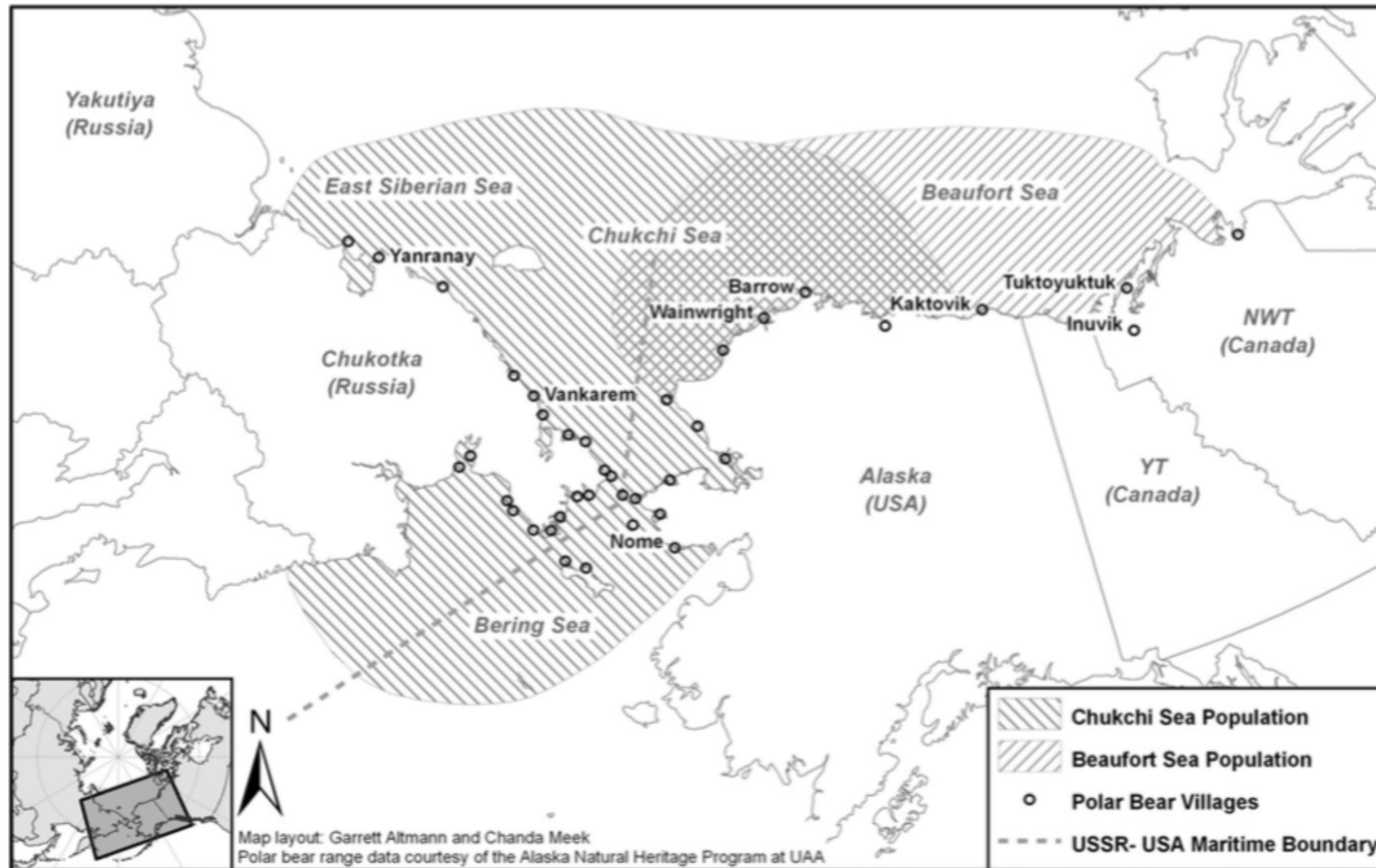


Map showing the 10 AEW whaling villages and approximate migration route of bowhead whales.

<https://alaskafisheries.noaa.gov/sites/default/files/aewcbooklet2007.pdf>

# Bering-Beaufort-Chukchi Bowhead whale population

Identify the ecosystem  
**Describe the ecosystem**  
Set ecological objectives  
**Assess the ecosystem**  
**Value the ecosystem**  
Manage human activities



Alaska-Chukotka polar bear population

	Polar Bear (2000-2016)	Bowhead Whale (1977-2016)
Incentives	<ul style="list-style-type: none"> <li>• Cultural relevance</li> <li>• The Inuvialuit-Inupiaq Agreement</li> <li>• Increased poaching</li> </ul>	<ul style="list-style-type: none"> <li>• 1975/6 selective moratorium</li> <li>• Traditional ecological knowledge on population data, made available to IWC</li> </ul>
Norms	<ul style="list-style-type: none"> <li>• Polar bear integrated into ecosystem-based traditional values</li> <li>• Global icon of climate change concern</li> <li>• Interdependence on Bowhead</li> </ul>	<ul style="list-style-type: none"> <li>• Traditional values and culture (e.g. language)</li> <li>• Post-MMPA general concern</li> </ul>
Capacities	<p><u>International</u>: World Wildlife Fund, International Union for Conservation of Nature, US-Russia Bilateral Polar Bear Commission</p> <p><u>National</u>: U.S. Fish and Wildlife Service (USFWS), National Park Service (NPS), U.S. Geological Survey</p> <p><u>Regional</u>: North Slope Borough (NSB), Alaska Nanuuq Commission, Chukotka Autonomous Okrug, Association of Traditional Marine Mammal Hunters in Chukotka (ChAZTO), RAIPON-Chuktoka (CAIPON), Alaska Dept. of Fish and Game (ADF&amp;G)</p>	<p><u>International</u>: International Whaling Commission, Inuit Circumpolar Council</p> <p><u>National</u>: NPS, National Marine Fisheries Service (NMFS), Russian Academy of the Sciences</p> <p><u>Regional</u>: Alaska Eskimo Whaling Commission, NSB, NSB's Department of Wildlife Management, Alaska Fisheries Science Center, ADF&amp;G, ChukTINRO, ChATZO, Chukotka Science Support Group</p> <p><u>Local</u>: Whaling Captains Associations in Gambell, Savoonga, Wales, Little Diomedede, Kivalina, Point Hope, Point Lay, Wainwright, Barrow, Nuiqsut, Kaktovik</p>
Information	<ul style="list-style-type: none"> <li>• Unclear communication between stakeholders</li> <li>• Scientific uncertainty on population numbers</li> </ul>	<ul style="list-style-type: none"> <li>• Clear communication of duties</li> <li>• Positive scientific certainty on population numbers</li> </ul>

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4 goals

AEWC

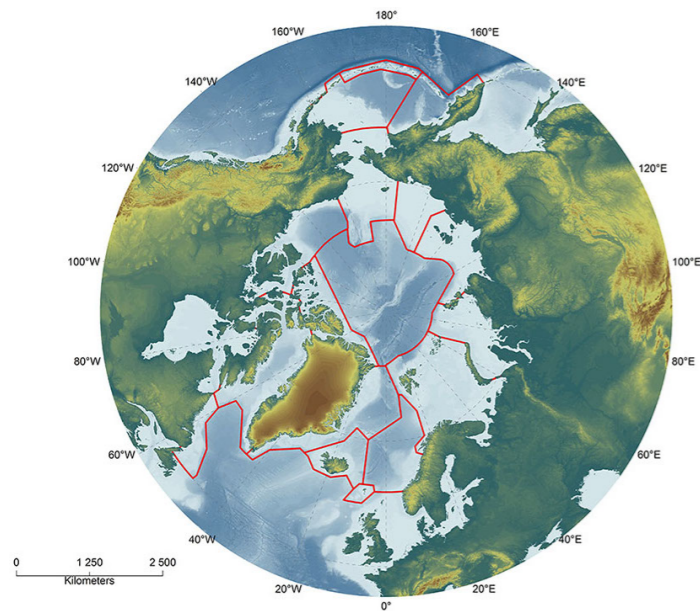
5000 to 16892

50% to 78%

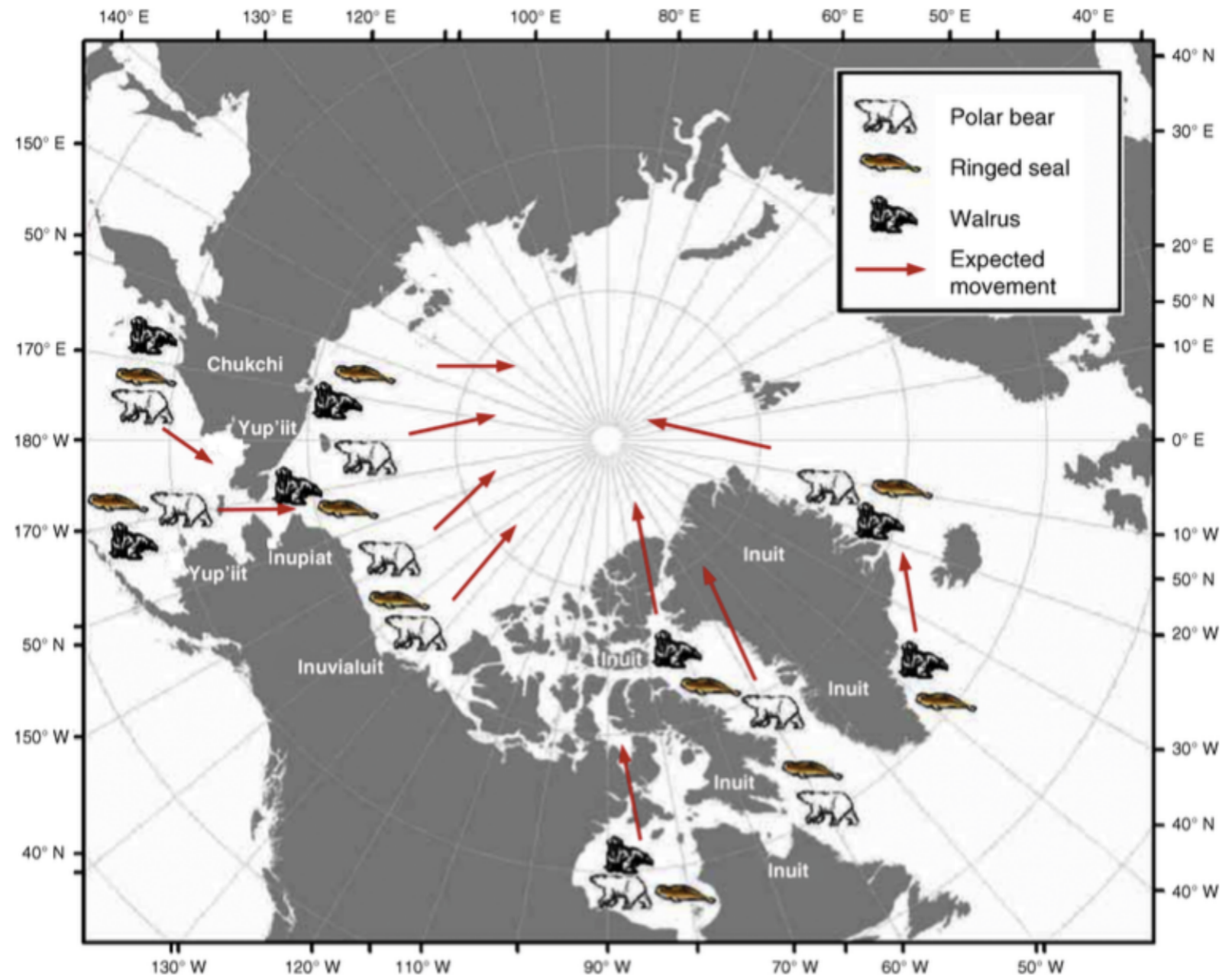
3.5%

98%-100%

CAAs



# From LME to LME



Hovelsrud, McKenna, and Huntington (2008)



Thank you

