

Western Arctic Bowhead Whale Movements Throughout Their Migratory Range 2006–2009 Satellite Telemetry Results

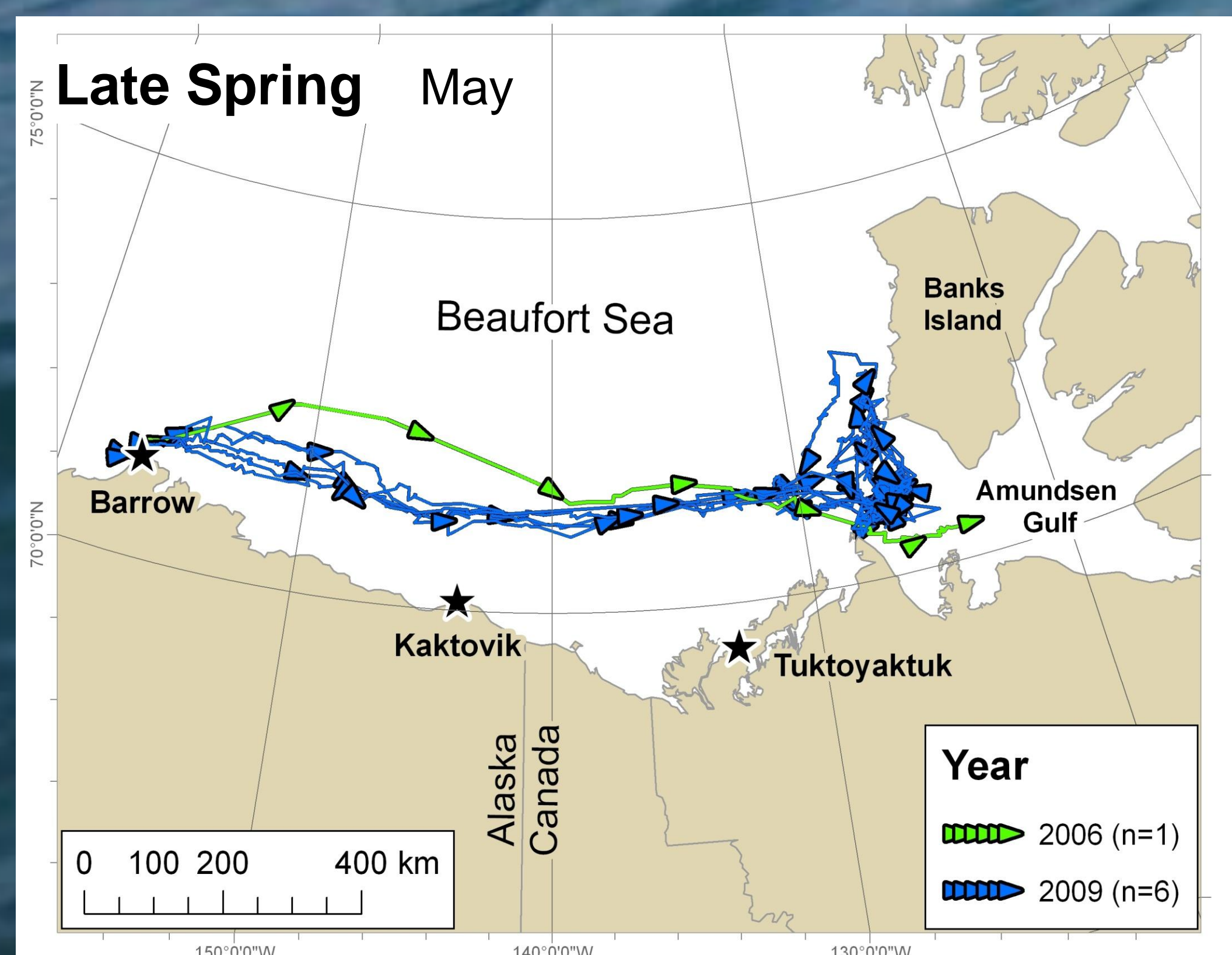
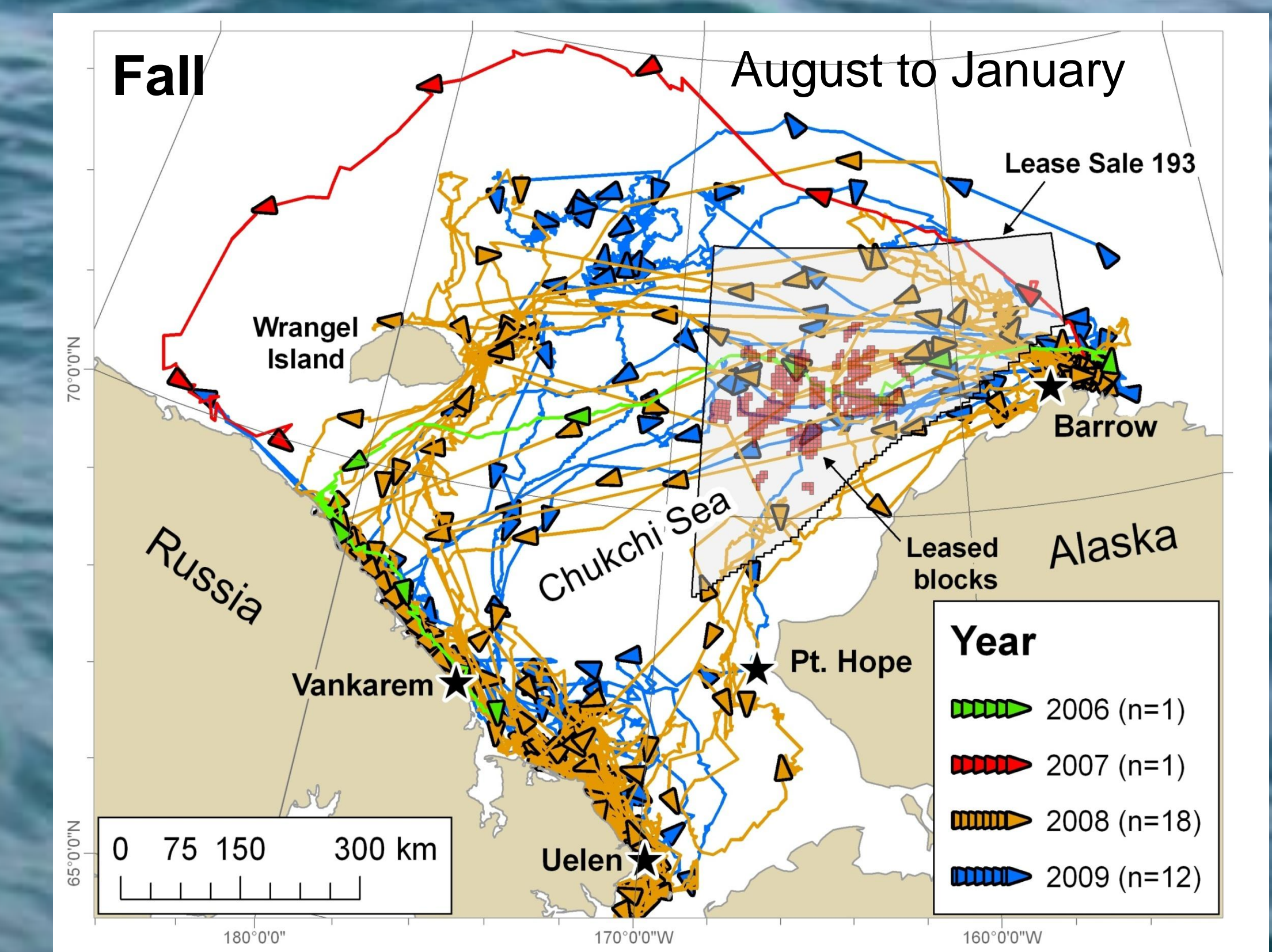
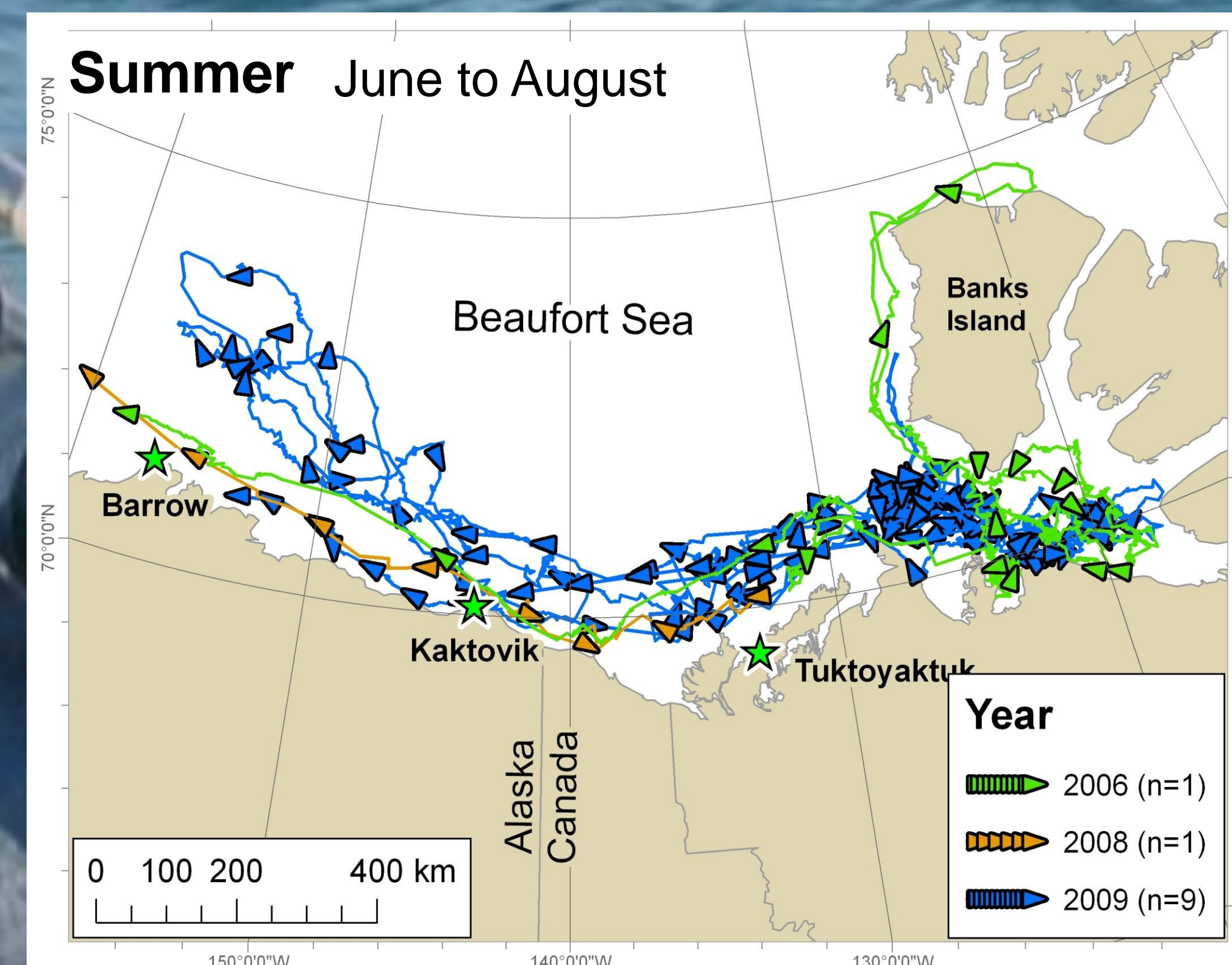
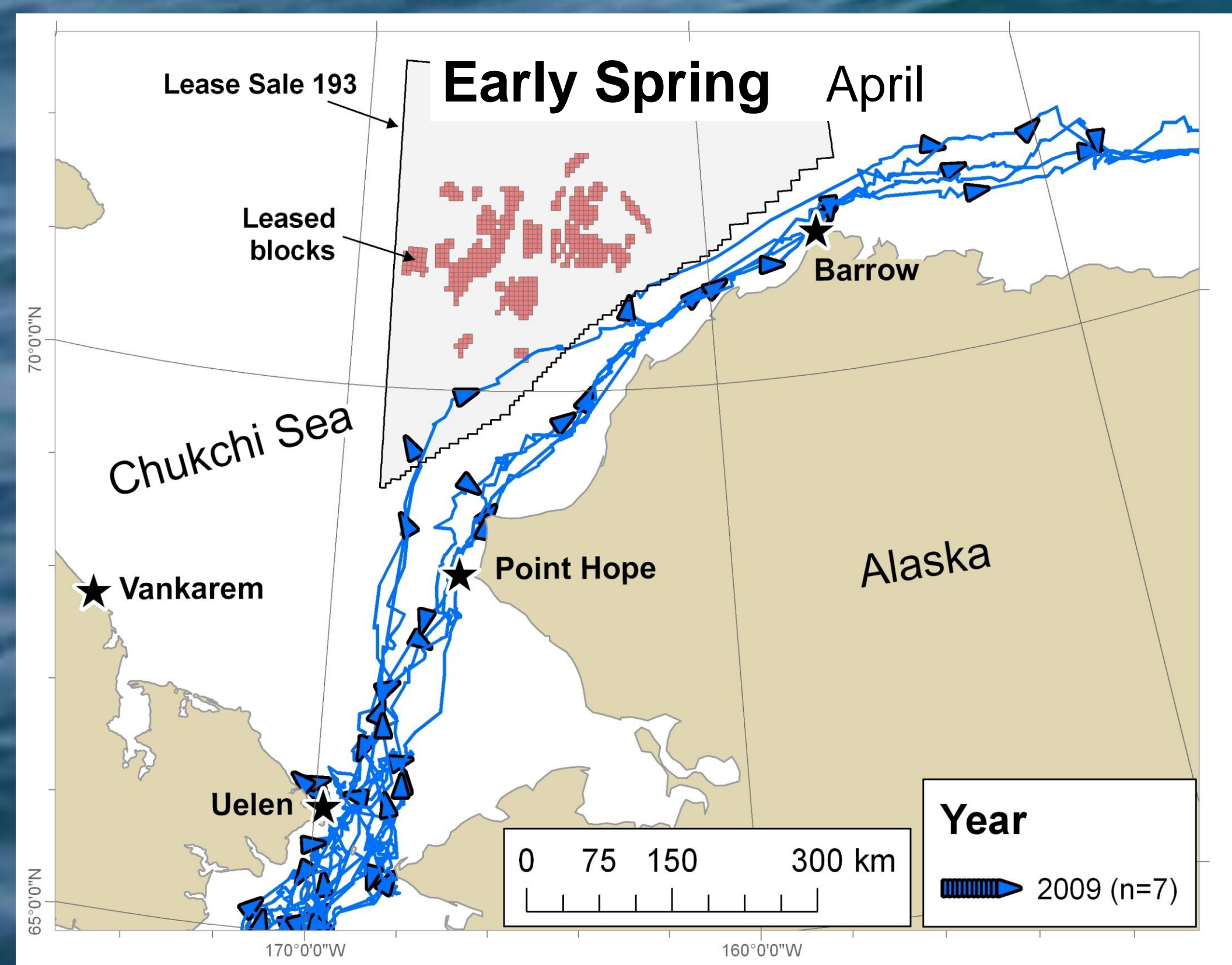
Lori Quakenbush¹, John Citta¹, John C. George², Robert Small³, Mads Peter Heide-Jørgensen⁴, Lois Harwood⁵, and Harry Brower, Jr.²

¹Alaska Department of Fish and Game, Fairbanks AK, USA, Lori.Quakenbush@alaska.gov; ²North Slope Borough, Barrow AK, USA; ³Alaska Department of Fish and Game, Juneau AK; ⁴Greenland Institute of Natural Resources, Copenhagen Denmark; ⁵Department of Fisheries and Oceans, Yellowknife, NT, Canada

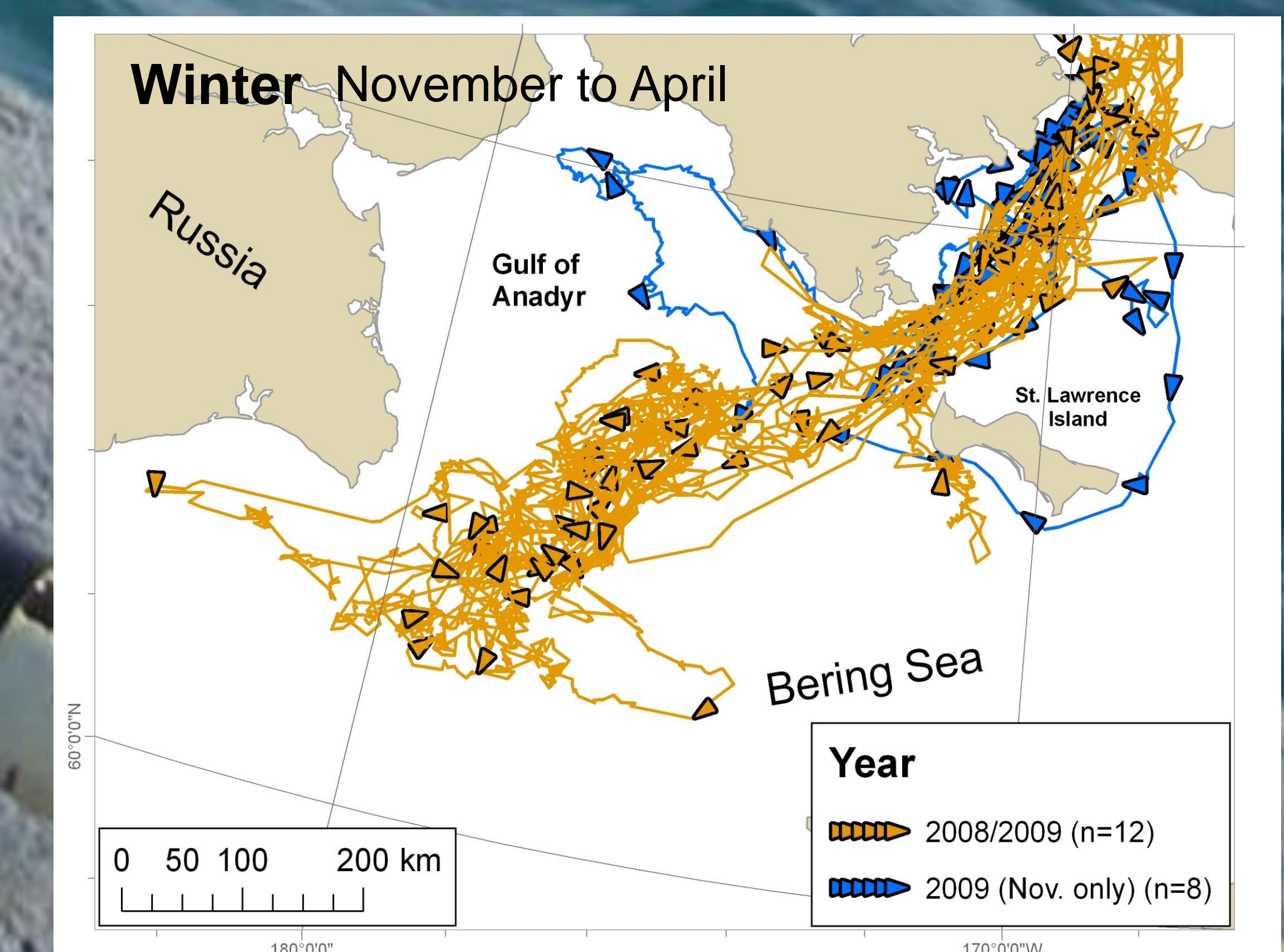
INTRODUCTION. In 2005, the Alaska Department of Fish and Game began a cooperative research project with the Alaska Eskimo Whaling Commission and others to study movements and habitat use of the western Arctic stock of bowhead whales (*Balaena mysticetus*).

RESULTS. Tags have lasted an average of >6 months. Two tags lasted >12 months, and two others ~10 months, allowing us to track individual bowhead whales throughout their complete annual migration in the Bering, Chukchi, and Beaufort seas. Tagging in consecutive years has allowed us to look at the variability in movements and the timing of migration among years.

METHODS. Between 2006 and 2009, 44 satellite transmitters were placed on bowhead whales in Alaska (n=35) and Canada (n=9). The majority of the tags were deployed in waters near Pt. Barrow by Alaska Native subsistence whalers and the others were deployed near Tuktoyaktuk Canada and near the Alaska-Canada border.



SUMMARY. Once the *Early spring* migration began, tagged whales travelled almost directly through the Chukchi Sea mostly between the southern boundary of oil and gas lease sale area 193 and shore. Once past Point Barrow (*Late Spring*) they travelled directly through the Beaufort Sea to Amundsen Gulf, Canada. *Summer* movements occurred across the entire Beaufort Sea and included two whales that traversed the Beaufort Sea four times in the same season instead of the usual two. All tagged whales passed through lease sale area 193 after leaving Barrow in the *Fall* and most spent weeks along the northern Chukotka coast before entering the Bering Sea. *Winter* movements were concentrated in the western Bering Sea from Bering Strait to the ice edge. The success of this project demonstrates what can be accomplished when Alaska Native subsistence hunters and scientists work together.



ACKNOWLEDGMENTS. This project is conducted in collaboration with the Alaska Eskimo Whaling Commission, the North Slope Borough, Aklavik and Tuktoyaktuk Hunters and Trappers Committees, the Department of Fisheries and Oceans Canada, and the Greenland Institute of Natural Resources. Special thanks to taggers Harry Brower, Jr., Billy Adams, Lewis Brower, Mikkel and Anders Jensen, James Pokiak, Eddie Aery, and George Tagarook. This research was conducted under the following permits: NMFS 782-1719, ADF&G ACUC 06-16, and in Canada AUP FWI-ACC-2007-2008-027. Funding provided by Minerals Management Service. Background photo by: Shaun Tuzroyluke.