

The Bering Sea Wintering Grounds of Beluga Whales (R0324)

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The Question: *Where do the Russian stocks of Beluga Whales that summer in the Arctic go in the winter?*

Lavrentia Bay, situated at the eastern end of the Chukotka peninsula, opposite Nome, is frequented in late October and early November of each year by belugas which summer in the Arctic. This beluga whale population’s winter migration has been tracked by satellite as far south as the northern Bering Sea. “That’s where the tracks have ended.” states Dr. Hobbs, biologist at the National Marine Mammal Laboratory.

The Project: *Determine the movements of Belugas during the winter and identify what types of ocean conditions and food availability determine the whales’ presence.*

Over the past two years, biologists from the National Marine Mammal Laboratory with funding from the North Pacific Research Board have attempted to locate and satellite tag beluga whales passing through Lavrentia Bay in early November. The transmitters would last until about May, when the team expects the whales to begin their spring migration back to the Arctic Ocean. Satellite transmitted data would include several locations per day, time-at-depth, maximum-depth-per-dive and dive duration. In addition, the team would take this rare opportunity to collect skin samples from the animals. These samples will help researchers identify the individual animals and determine their stock of origin. Comparing the movement, dive information and stock identity to existing data on ocean temperatures, currents, and food availability would help researchers identify beluga stocks that are vulnerable to subsistence harvesting in Russian, U.S. and Canadian waters.

Preliminary Results:

Over the past ten-years tagging projects carried out in Alaska, Canada and Russia has identified three genetically distinct U.S. stocks and possibly a fourth that winter in the Bering Sea. There is much less known about the genetic stock structure and movements of belugas in Russian waters. To date the whales’ movements through Lavrentia Bay have proven unpredictable. Traditional knowledge suggests the whales’ arrival coincides with the development of sea ice in the Arctic Circle. However global warming trends have altered the expected arrival time of the whales.

The North Pacific Research Board seeks to build a clear understanding of the North Pacific, Bering Sea, and Arctic Ocean ecosystems to enable effective fisheries management and the sustainable use of marine resources. www.nprb.org

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