DISTRIBUTION, ABUNDANCE, AND MOVEMENTS
OF BELUKHA WHALES IN BRISTOL BAY, ALASKA

Kathryn J. Frost\textsuperscript{1}, Lloyd F. Lowry\textsuperscript{1}, and Robert R. Nelson\textsuperscript{2}
Alaska Department of Fish & Game, 1300 College Road, Fairbanks, AK 99701\textsuperscript{1}
P.O. Box 1148, Nome, AK 99762\textsuperscript{2}

Studies of belukha whales (Delphinapterus leucas) were conducted in
Bristol Bay, Alaska, where 1000-1500 belukhas calve and feed. The area also
supports the largest commercial salmon fishery in North America.

In 1983, whales were captured in Kvichak Bay by herding into shallow
water. Model AB340 OAR transmitters were attached by nylon bolts to the
dorsal ridges of two whales, which were relocated several times over a 2-week
period before their radios were shed. Tracking was done from shore, boats,
and a helicopter using primarily Telonics receiving equipment. Signals were
received from over 30 miles from the helicopter and up to 15 miles from the
boats.
Movements of whales in Kvichak Bay were studied using aerial surveys, surface observations, and relocation of radio-tagged whales. Whales regularly made twice-daily upriver movements of as much as 30 miles. From mid-May until the study ended in mid-July, movements were restricted to within Kvichak Bay.

In 1982, the maximum number of observed belukhas in Nushagak Bay was 400-600. In 1983, our maximum counts were 135 in Nushagak Bay and 400 in Kvichak Bay. The application of dive time:surface time data obtained from telemetered whales to aerial survey results will be discussed. The distribution and abundance of whales in 1982-83 were comparable to that observed in the mid-1950's.