## ARCT

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## Winter Sighting of Beluga Whales (*Delphinapterus leucas*) in Yakutat-Disenchantment Bay, Alaska

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ABSTRACT. On 19 February 1997, we made the first documented winter sighting of beluga whales in Yakutat-Disenchantment Bay, Alaska. We estimated that 10 individuals were swimming in ice-free, turbid water near the Hubbard Glacier. The sporadic record of belugas in the bay suggests they may be occasional visitors from the Cook Inlet population.

Key words: beluga whale, Delphinapterus leucas, Gulf of Alaska, winter distribution, Yakutat Bay

RÉSUMÉ. Le 19 février 1997, nous avons pour la première fois enregistré la présence de bélougas en hiver dans la baie alaskienne de Yakutat-Disenchantment. On a estimé à 10 le nombre d'individus qui nageaient dans l'eau turbide libre de glace près du glacier Hubbard. La présence sporadique des bélougas dans la baie suggère qu'ils pourraient être des visiteurs occasionnels venant de la population du détroit de Cook.

Mots clés: bélouga, Delphinapterus leucas, golfe d'Alaska, distribution hivernale, baie de Yakutat

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On 19 February 1997, we observed beluga whales within 1 km of the tidewater Hubbard Glacier terminus at the head of Yakutat-Disenchantment Bay, Alaska (60°01.5′N, 139° 33.1′W). This is the first published winter record of beluga whales for this area.

Initially, at 22:01 GMT, we sighted a pod of five belugas milling in an area where ice coverage was less than 25% broken floe. As the aircraft circled at 1100 feet (335 m), we observed three groups (of three, two, and five whales) milling and swimming slowly in an area of icefree, greenish, turbid water. The sighting cues were brief views of individuals when they surfaced and their tracks through the cloudy water. Since the whales were swimming slowly and the groups appeared at some distance from one another, we concluded that just the three groups observed were present, comprising ten whales. Also, the frequent surfacing of each group near its previous location indicated that we were seeing the same three groups moving from location to location, rather than the surfacing of previously unseen whales. One individual appeared grayish white.

At 22:30 GMT, almost 30 minutes after the initial sighting, five belugas were observed within 2 km of the original sightings. These individuals also appeared to remain primarily in the turbid water about 1 km from the glacier. No additional whales were seen during a survey of the entire Yakutat-Disenchantment Bay and Russell

Fiord shoreline, or during four systematic transects of Yakutat Bay.

This is the first documented sighting of beluga whales in Yakutat Bay since May 1976, when 21 were reported (Calkins and Pitcher, 1977). Local residents have observed beluga whales near streams on the northwest side of the bay primarily in August and September, when coho salmon are present (R. Johnson, W. Porter, J. Vale, pers. comm. 1997). But U.S. Fish and Wildlife Service biologists did not observe beluga whales in Yakutat Bay during aerial surveys of sea otters in August 1995 and 1996 (Doroff and Gorbics, 1998). Nor did National Marine Fisheries Service biologists observe belugas in this area during aerial surveys of harbor seals in September 1993 and porpoises in June 1993 and 1997 (Loughlin, 1994; R. Hobbs, pers. comm. 1998). However, U.S. Coast Guard personnel did observe beluga whales in Yakutat-Disenchantment Bay in mid-November and early December 1998 (K. Howard, D. Molthen, pers. comm. 1999). Such a sporadic record of observation suggests that beluga whales are occasional visitors from the Cook Inlet population, rather than permanent residents of Yakutat Bay.

Despite the increasing use of satellite telemetry, the winter distribution, movements, and habitats of beluga whales remain poorly known (Calkins, 1979; Norris, 1994; Richard, et al., 1997; Richard, 1999; Suydam et al., 1999). Belugas overwintering in the Bering Sea are thought to

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disperse in the seasonal ice (Lowry, 1984; Seaman et al., 1986). Cook Inlet belugas may disperse into the Gulf of Alaska during winter, as Matkin has speculated (pers. comm. 1997); however, no sightings have been documented. Recent aerial surveys of the Cook Inlet area for beluga whales during February and March 1997 encountered only small or scattered pods in the central inlet (Hansen and Hubbard, 1999). The declining trend of Cook Inlet population estimates, from 653 in 1994 to 347 in 1998 (Hobbs et al., 1998), suggests that the conservation needs of this population will require the efforts and cooperation of all concerned agencies and organizations. Accurate seasonal distribution and abundance information will help determine the appropriate action to reverse their decline.

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## REFERENCES

- CALKINS, D.G. 1979. Marine mammals of Lower Cook Inlet and potential for impacts from outer continental shelf oil and gas exploration, development, and transportation. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Outer Continental Shelf Environmental Assessment Program. OCSEAP Final Reports 20(1983): 171–264.
- CALKINS, D.G., and PITCHER, K.W. 1977. Unusual sightings of marine mammals in the Gulf of Alaska (Abstract). Proceedings of the Second Conference on the Biology of Marine Mammals. San Diego, California, 12–15 December 1977. 53.
- DOROFF, A., and GORBICS, C. 1998. Sea otter surveys of Yakutat Bay and adjacent Gulf of Alaska coastal areas-Cape Hinchinbrook to Cape Spencer 1995–1996. Final Report to Minerals Management Service. OCS Study MMS 97-0026. Anchorage, Alaska: U.S. Fish and Wildlife Service, Marine Mammals Management, Sea Otter Program. 49 p.
- HANSEN, D.J., and HUBBARD, J.D. 1999. Distribution of Cook Inlet beluga whales (*Delphinapterus leucas*) in winter. U.S.

- Department of the Interior, Minerals Management Service, Alaska Outer Continental Shelf Region. Final Report, OCS Study MMS 99-0026. 72 p.
- HOBBS, R.C., RUGH, D.J., and DeMASTER, D.P. 1998.
  Abundance of beluga whales in Cook Inlet, Alaska. Unpubl. report (draft). Available from R.C. Hobbs, National Marine Mammal Laboratory, Alaska Fisheries Science Center, National Marine Fisheries Service, 7600 Sand Point Way N.E., Bin C15700, Seattle, Washington 98115-0070. 15 p.
- LOUGHLIN, T.R. 1994. Abundance and distribution of harbor seals (*Phoca vitulina richardsi*) in southeast Alaska during 1993. Annual Report for 1993, National Marine Mammal Laboratory, Alaska Fisheries Science Center. Available from T.R. Loughlin, National Marine Mammal Laboratory, Alaska Fisheries Science Center, National Marine Fisheries Service, 7600 Sand Point Way N.E., Bin C15700, Seattle, Washington 98115-0070. 11 p.
- LOWRY, L.F. 1984. The belukha whale (*Delphinapterus leucas*). In: Burns, J., ed. Marine mammal species accounts. Game Technical Bulletin No. 7. Juneau, Alaska: Alaska Department of Fish & Game. 3–15.
- NORRIS, K.S. 1994. White whale of the north, beluga. National Geographic 185(6):8–30.
- RICHARD, P.R. 1999. Tagging and satellite tracking of beluga whales (Abstract). Information Transfer Meeting, Anchorage, Alaska, 19–21 January 1999. OCS Study MMS 99-0022. U.S. Department of the Interior, Minerals Management Service, Alaska Outer Continental Shelf Region. 28.
- RICHARD, P.R., MARTIN, A.R., and ORR, J.R. 1998. Study of late summer and fall movements and dive behavior of Beaufort Sea belugas, using satellite telemetry: 1997. OCS Study MMS 98-0016. Winnipeg, Manitoba: Fisheries and Oceans, Arctic Research Division. 25 p.
- SEAMAN, G.A., FROST, K.J., and LOWRY, L.F. 1986. Investigations of belukha whales in coastal waters of western and northern Alaska. I. Distribution, abundance, and movements. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Outer Continental Shelf Environmental Assessment Program. OCSEAP Final Reports 56 (1988):153-220.
- SUYDAM, R., LOWRY, L.F., and FROST, K.J. 1999. Satellite tracking of beluga whales in the central Arctic Ocean (Abstract). Information Transfer Meeting, Anchorage, Alaska, 19–21 January 1999. OCS Study MMS 99-0022. U.S. Department of the Interior, Minerals Management Service, Alaska Outer Continental Shelf Region. 28.