

Marine Fisheries REVIEW

W. L. Hobart, Editor
J. A. Strader, Managing Editor



On the cover:
Beluga whales, *Delphinapterus leucas*, in Cook Inlet, Alaska. Top photo taken from shore, courtesy of Chris Garner, U.S. Army, Joint Base Elmendorf-Richardson, and bottom photos courtesy of LGL Alaska Research Associates, NMFS General Authorization LOC 481-1795-01 and MMPA-ESA research permit 14210.



Articles	77(2), 2015
Preface	<i>Kim Shelden and Rod Hobbs</i> i
Spatio-temporal Changes in Beluga Whale, <i>Delphinapterus leucas</i> , Distribution: Results from Aerial Surveys (1977–2014), Opportunistic Sightings (1975–2014), and Satellite Tagging (1999–2003) in Cook Inlet, Alaska	<i>Kim E. W. Shelden, Kimberly T. Goetz, David J. Rugh, Donald G. Calkins, Barbara A. Mahoney, and Roderick C. Hobbs</i> 1
Socio-sexual and Probable Mating Behavior of Cook Inlet Beluga Whales, <i>Delphinapterus leucas</i> , Observed From an Aircraft	<i>Mari A. Smultea, Kate S. Lomac-MacNair, Mark P. Cotter, Carey Thissen and Lisa Parker</i> 32
Annual Calf Indices for Beluga Whales, <i>Delphinapterus leucas</i> , in Cook Inlet, Alaska, 2006–12	<i>Roderick C. Hobbs, Christy L. Sims, Kim E. W. Shelden, Linda Vate Brattström, and David J. Rugh</i> 40
The Viability of a Small, Geographically-isolated Population of Beluga Whales, <i>Delphinapterus leucas</i> : Effects of Hunting, Predation, and Mortality Events in Cook Inlet, Alaska	<i>Roderick C. Hobbs, Paul R. Wade, and Kim E. W. Shelden</i> 59
Potential Natural and Anthropogenic Impediments to the Conservation and Recovery of Cook Inlet Beluga Whales, <i>Delphinapterus leucas</i>	<i>Stephanie A. Norman, Roderick C. Hobbs, Caroline E. C. Goertz, Kathy A. Burek-Huntington, Kim E. W. Shelden, Woutrina A. Smith, and Laurel A. Beckett</i> 89

U.S. DEPARTMENT OF COMMERCE

Penny Pritzker
Secretary of Commerce

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Kathryn D. Sullivan
Under Secretary for Oceans and Atmosphere

National Marine Fisheries Service

Eileen Sobeck
Assistant Administrator
for Fisheries

The Marine Fisheries Review (ISSN 0090-1830) is published quarterly by the Scientific Publications Office, National Marine Fisheries Service, NOAA, 7600 Sand Point Way N.E., Seattle, WA 98115. Annual subscriptions are sold by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. The annual subscription price is \$25.00 domestic, \$35.00 foreign. Single copies are \$9.50 domestic, \$13.30 foreign. New subscriptions may be purchased online at <http://bookstore.gpo.gov/products/sku/703-028-00000-4> or by mail at U.S. Government Printing Office, P.O. Box 979050, St. Louis, MO 63197-9000.

Although the contents of this publication have not been copyrighted and may be reprinted entirely, reference to source is appreciated.

Publication of material from sources outside the NMFS is not an endorsement, and the NMFS is not responsible for the accuracy of facts, views, or opinions of the sources. The Secretary of Commerce has determined that the publication

of this periodical is necessary for the transaction of public business required by law of this Department. Use of the funds for printing this periodical has been approved by the Director of the Office of Management and Budget.

The NMFS does not approve, recommend, or endorse any proprietary product or proprietary material mentioned in this publication. No reference shall be made to the NMFS, or to this publication furnished by the NMFS, in any advertising or sales promotion which would indicate or imply that the NMFS approves, recommends, or endorses any proprietary product or proprietary material mentioned herein, or which has as its purpose an intent to cause directly or indirectly the advertised product to be used or purchased because of this NMFS publication. This issue, volume 77 number 2, was printed and distributed in July 2016.

This publication is available online at
<http://spo.nmfs.noaa.gov/mcontent.htm>

Behavior and Distribution of Cook Inlet Beluga Whales,
Delphinapterus leucas, Before and During Pile Driving Activity

Lindsey Saxon Kendall
and Leslie A. Cornick 106

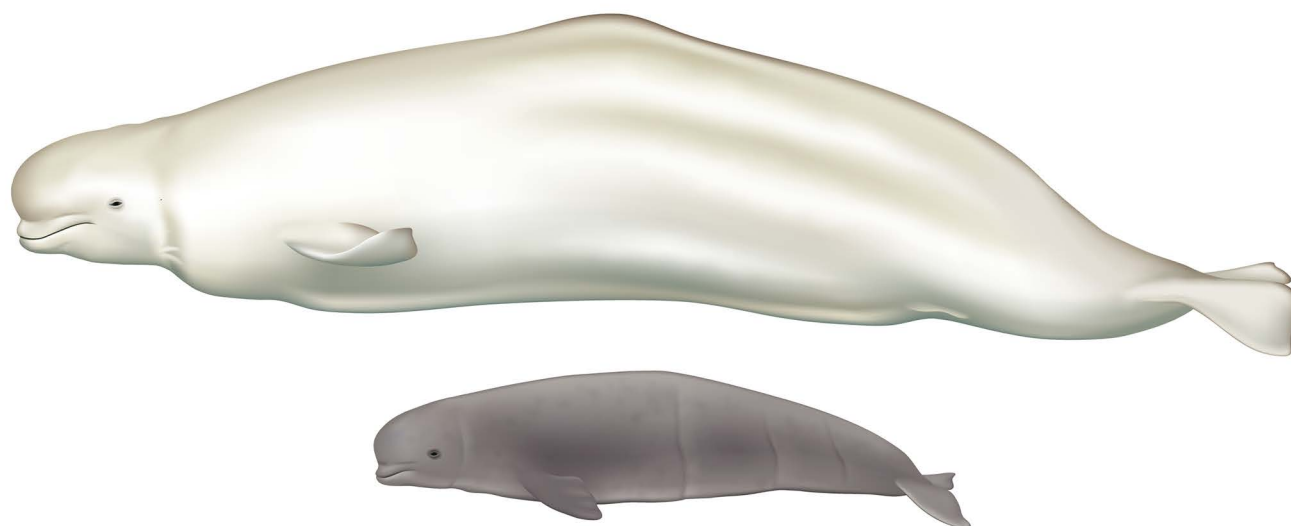
Citizen Science

Cook Inlet Beluga Whale, *Delphinapterus leucas*, Observations near Anchorage,
Alaska, Between 2008 and 2011: Results from a Citizen Science Project

Barbara Švarný Carlson,
Christy Sims, and Sylvia Brunner 115

Errata

131



Beluga whale, *Delphinapterus leucas*. Illustration by Uko Gorter.