

External Morphology of Bowhead Fetuses and Calves	<i>Floyd E. Durham</i>	74
Observations of Bowhead Whales During Spring Migration	<i>Geoffry M. Carroll and John R. Smithisler</i>	80
Sounds Recorded in the Presence of an Adult and Calf Bowhead Whale	<i>D. K. Ljungblad, S. Leatherwood, and M. E. Dahlheim</i>	86
Foods Utilized by Bowhead Whales Near Barter Island, Alaska, Autumn 1979	<i>Lloyd F. Lowry and John J. Burns</i>	88
Some Observations on Urine From a Bowhead Whale	<i>W. Medway</i>	91
Healed Penetrating Injury of a Bowhead Whale	<i>Thomas F. Albert, George Migaki, Harold W. Casey, and L. Michael Philo</i>	92

The Bowhead Whale: Whaling and Biological Research

A Special Issue

Sponsored by the

National Marine Mammal Laboratory
Northwest and Alaska Fisheries Center
National Marine Fisheries Service, NOAA
Seattle, Washington

Editors:

Howard W. Braham
Willman M. Marquette
Teresa W. Bray
J. Stephen Leatherwood

Preface

Bowhead whales, *Balaena mysticetus*, have been studied for centuries. Alaskan Eskimos studiously observed movements and behavior of bowheads, gaining knowledge that would help them hunt the whales in the shifting ice of spring and the turbulent waters of autumn. In 1848, the Eskimos were joined by outsiders, commercial whalers from the Yankee fleets to the south. Valued by these men for their great quantities of oil and baleen (or whalebone), bowheads were relentlessly pursued and were nearly exterminated. Fortunately, a few Yankee skippers recorded detailed observations, providing us with important information on the species.

In the past decade, scientific study of

the bowhead has burgeoned: In 1972 two scientists were studying the biology and habits of bowheads in the western Arctic Ocean and Bering Sea on a seasonal basis; by 1979 over 50 scientists were searching year-round for answers about this species.

This special issue of *Marine Fisheries Review* presents recent scientific findings, most from original research conducted since 1973. Scientists from western Europe, North America, and the U.S.S.R., as well as native Alaskan Eskimos, were invited to submit papers. Twenty-six authors representing 14 Federal, State, and private institutions responded. Seventeen papers are presented, beginning with an introduction to the problem which precipitated intensive study of the bowhead whale in 1978, followed by discussions of historical whaling, commercial and

subsistence, present population enumeration and estimates of the population size at the end of commercial exploitation, migration and distribution, behavior and sounds made by bowheads during migration, and, finally, biology of the bowhead whale. As incomplete a picture as they paint of this species, these papers constitute a significant contribution to our knowledge of the life history of the bowhead whale.

The editors wish to thank each author for cooperation in compiling this issue, as well as the many reviewers who provided needed assistance on short notice; their time is appreciated.

This issue is respectfully dedicated to the memory of Floyd E. Durham who passed away on 23 October 1980. We have lost a dedicated colleague and a good friend.