### U.S. DEPARTMENT OF COMMERCE Juanita M. Kreps, Secretary

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION Robert M. White, Administrator

National Marine Fisheries Service Robert W. Schoning, Director



Marine Fisheries Review is published monthly by NMFS Scientific Publications Staff, Room 450, 1107 N.E. 45th St., Seattle, WA 98105.

Publication of material from sources outside the Service is not an endorsement. The Service is not responsible for the accuracy of facts, views, or opinions of these sources.

Although the contents have not been copyrighted and may be reprinted freely, reference to source is appreciated.

The Secretary of Commerce has determined that the publication of this periodical is necessary in the transaction of public business required by law of this Department. Use of funds for printing this periodical has been approved by the Director, Office of Management and Budget, through May 31, 1978.

> Editor: J. D. Harrell Managing Editor: W. Hobart

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Price \$1.10 (single copy). Subscription price: \$12.75 a year, \$15.95 a year for foreign mailing. Controlled circulation postage paid at Tacoma, Wash.

# **Marine Fisheries Review**

Vol. 39, No. 3 March 1977

## CONTENTS

### Articles

- 1 Mixed Species Utilization Daniel W. Baker and Steven E. Hulme
- 4 Chilled Seawater System for Bulkholding Sea Herring Steven E. Hulme and Daniel W. Baker
- 10 The Southeastern Alaska Herring Fishery Howard O. Ness
- 15 The Recent Development of the Southeastern Alaska Herring Fishery Howard O. Ness
- 19 Observations on the Birth of a Southeastern Alaska Fishery Howard O. Ness
- 23 Seasonal Changes in Spatial Distribution and Activity of Two Species of Pacific Rockfishes, Sebastes flavidus and S. ciliatus, in Lynn Canal, Southeastern Alaska H. Richard Carlson and Louis Barr

#### Departments

- 25 NOAA/NMFS Developments
- 30 Foreign Fishery Developments
- 40 Publications