

U.S. DEPARTMENT OF COMMERCE
Elliot L. Richardson, 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 Seattle, Wash.

Marine Fisheries Review

Vol. 38, No. 10
October 1976

CONTENTS

Articles

- General Pathology
- 2 Inflammation and Wound Repair in Oysters, Albert K. Sparks
 - 5 Identification of Proliferative Lesions in Mollusks, Thomas C. Cheng
 - 7 Parasitic Encapsulation in a Marine Prosobranch; The Role of Agranular Hemolymph Cells, Timothy P. Yoshino
 - 10 Effects of Phenol on Clams, C. Fries and M. R. Tripp
 - 12 A Review of the Histopathological Effects of Ionizing Radiation on the Pacific Oyster, *Crassostrea gigas*, Michael C. Mix
 - 16 A Proteomyxan Amoeba Stage in the Development of *Labyrinthomyxa patuxent* (Hogue) Mackin and Schlicht, With Remarks on the Relation of the Proteomyxids to the Neoplastic Diseases of Oysters and Clams, J. G. Mackin and Frank G. Schlicht
 - 19 *Dermocystidium marinum* Infection in Oysters, Frank O. Perkins
 - 22 *Minchinia nelsoni* (MSX) Disease of the American Oyster, Fred G. Kern
- Proliferative Lesions
- 25 Descriptions of Polyps and Epidermal Papillomas in Three Bivalve Mollusk Species, John C. Harshbarger
 - 30 Proliferative Disorders in Bivalve Mollusks, C. Austin Farley
 - 34 Occurrence of Hematopoietic Neoplasms in Virginia Oysters (*Crassostrea virginica*), E. Michael Frierman
 - 37 A General Model for Leucocyte Cell Renewal in Bivalve Mollusks, Michael C. Mix
 - 42 Gonadal and Hematopoietic Neoplasms in *Mya arenaria*, Paul P. Yevich and Carolyn A. Barszcz
 - 44 Dermal Lesions and Amebocytic Accumulations in Snails, Charles S. Richards
 - 46 Some Observations on Comparative Vertebrate and Invertebrate Pathology: A Summary Discussion of the Workshop, Harold L. Stewart
 - 49 The Workshop on Molluscan Pathology: Closing Comments, Dante G. Scarpelli
 - 50 Workshop Participants

Departments

- 51 NOAA/NMFS Developments
- 54 Foreign Fishery Developments
- 56 Publications

Cover—Electron photomicrograph of *Macoma balthica* gill epithelium tissue showing an area composed primarily of neoplastic cells.