

New NMFS Scientific Reports Published

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NOAA Technical Report NMFS SSRF-699. Ingraham, W. James, Jr., and James R. Hastings. "**Seasonal surface currents off the coasts of Vancouver Island and Washington as shown by drift bottle experiments, 1964-65.**" May 1976. 9 p.

ABSTRACT

Release of a total of 1,044 drift bottles during four periods from April 1964 to January 1965 off the coasts of Washington and Vancouver Island, British Columbia, indicate a seasonal reversal of flow, southward in April and July and northward in November and January, within 200 km (108 nautical miles) of the coast. This study supplements those conducted off the Oregon and California coasts by other agencies.

NOAA Technical Report NMFS CIRC-394. Pollock, Leland W. "**Marine flora and fauna of the northeastern United States. Tardigrada.**" May 1976. 25 p. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

ABSTRACT

The manual includes an introduction to the general biology, an illustrated key, an annotated systematic list, a selected bibliography, and an index to the Tardigrada of the marine coastal areas of the world to a depth of 5,000 m.

NOAA Technical Report NMFS CIRC-395. Hunter, John R. (editor). "**Report of a**

colloquium on larval fish mortality studies and their relation to fishery research, January 1975." May 1976. 5 p. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

ABSTRACT

One of the critical problems in fishery research today is the inability to determine how the abundance of adult fishes affect the strength of incoming year classes. The report summarizes the discussions of experts on how studies of larval fish mortality may assist in solving this problem. Included in this report are discussions of the principle causes of larval mortality and their possible relation to stock size. Guidelines and recommendations are made regarding future research on the mortality of larval fish.

NOAA Technical Report NMFS SSRF-700. Cook, Steven K. "**Expendable bathythermograph observations from the NMFS/MARAD Ship of Opportunity Program.**" June 1976. 13 p. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

ABSTRACT

Results of the third year of operation of the NMFS/MARAD Ship of Opportunity Program are presented in the form of vertical distributions of sea surface temperature and salinity. Included are descriptive analyses of the most dynamic transects showing the Caribbean/Yucatan/Loop/Florida Current regimes, the Gulf Stream, associated eddies, and the bottom cell of cold water off the U.S. east coast. Operational and data management procedures also are discussed.

NOAA Technical Report NMFS SSRF-701. Houde, Edward D., and Nicholas Chitty. "**Seasonal abundance and distribution of zooplankton, fish eggs, and**

fish larvae in the eastern Gulf of Mexico, 1972-74." August 1976. 18 p.

ABSTRACT

Zooplankton volumes and abundance of fish eggs and fish larvae were determined for stations on 12 cruises to the western Florida continental shelf. Contour charts of zooplankton volumes and of ichthyoplankton abundance are presented. A marked seasonality was observed for zooplankton and ichthyoplankton, highest zooplankton volumes and ichthyoplankton abundance occurring during May through September. Zooplankton volumes were highest and spawning by fishes most intense in the northern half of the study area (north of lat. 27°15'N). Fish larvae abundance (number under 10 m² of sea surface) was highest at stations deeper than 50 m. Simple correlations among biological variables showed fish egg abundance-zooplankton volumes and fish egg abundance-fish larvae abundance to be positively correlated on most cruises. No clear relationships were observed between abundance or concentration of biological variables and temperature or salinity.

NOAA Technical Report NMFS SSRF-702. Sakagawa, Gary T., Atilio L. Coan, and Eugene P. Holzapfel. "**Length composition of yellowfin, skipjack, and bigeye tunas caught in the eastern tropical Atlantic by American purse seiners.**" August 1976. 22 p.

ABSTRACT

Sampling and analytical procedures that are used to estimate the size composition of Atlantic tunas caught by American purse seiners in the eastern tropical Atlantic are described. The procedures are based on a stratified, two-stage subsampling model. Estimates indicated that about 0.2 to 1.4 million yellowfin tuna, *Thunnus albacares*, 1.2 to 12.8 million skipjack tuna, *Katsuwonus pelamis*, and 0.5 to 41.2 thousand bigeye tuna, *T. obesus* were caught annually by the fleet in 1968-74. The dominant age group in most years was 1-yr olds for yellowfin and skipjack tuna and 2-yr olds for bigeye tuna.