

## Canada Reorganizes Fisheries Operations

New organizational arrangements which are a part of a continuing program to strengthen the capability and responsiveness of the Fisheries and Marine Service of Environment Canada have been announced by Robert F. Shaw, Deputy Minister of Environment.

Responsiveness to regional and provincial needs within the framework of national policies will be achieved by greater delegation of management responsibilities to the regional executives of the Service. In Ottawa, administration of line operations will come under two assistant deputy ministers reporting to Ken Lucas, Senior Assistant Deputy Minister, Fisheries and Marine Service. At headquarters, the Fisheries and Marine Service has consolidated what were previously six line organizations into two major groupings: (1) Fisheries Management and (2) Ocean and Aquatic Affairs. Among activities which will be brought together within these two groups are the former Fisheries Operations Directorate, the research functions formerly managed directly by the Fisheries Research Board, and the Marine Sciences Directorate.

Responsibilities consolidated under the new ADM, Fisheries Management, include resource management and conservation; enforcement of fisheries regulations including operation of a major ocean patrol fleet and surveillance aircraft; industrial development and fish inspection; marketing and promotion; biological and technical research on fish and other aquatic flora and fauna; fishing vessel insurance and vessel construction subsidy administration; management of small craft harbours across Canada; promotion and management of recreational fisheries; and administration of international and federal-provincial fisheries agreements.

Regional fisheries management will be consolidated under five regional directors-general located at Vancouver, Winnipeg, Quebec City, Halifax, and St. John's.

The ADM, Ocean and Aquatic

Affairs, will be responsible for the consolidated physical and chemical oceanographic research; biological research related to the quality of the marine environment; environmental assessments of activities affecting freshwater and marine life; marine geophysical mapping; operating of a fleet of research and survey vessels; hydrographic surveying; tide and water levels measurement and production of navigational, bathymetric and other charts of Canadian coastal and inland waters.

Reporting directly to the ADM, Ocean and Aquatic Affairs, will be three directors-general located at Victoria, B.C., Dartmouth, N.S., and Burlington, Ont. These officers will direct consolidated ocean and aquatic programs in a similar manner to and in cooperation with their fisheries management counterparts.

Appointed to the position of Assistant Deputy Minister, Fisheries Management, is David J. McEachran, 39, who since 1972 has been Acting Deputy Minister of the Alberta Department of Industry and Commerce under the Federal Government's Executive Interchange Program.

Named Assistant Deputy Minister, Ocean and Aquatic Affairs, is Dr. A.E. Collin, 44, of Ottawa, formerly Director-General of the Marine Sciences

Directorate and Acting Director-General for Fisheries Research and Development.

Appointed Regional Directors-General for Fisheries Management were: H.D. Johnston, 40, Maritimes Region, Fisheries Regional Director at Halifax since July, 1973; L.J. Cowley, 38, Newfoundland Region, Fisheries Regional Director at St. John's since August, 1972; Jean Fréchet, 49, Quebec Region, has been closely associated with federal-provincial fisheries development projects in the province of Quebec for many years.

Appointed Regional Directors-General for Ocean and Aquatic Affairs were: Dr. R.W. Stewart, 50, Pacific Region, who has been Director, Pacific Region, Marine Sciences Directorate, at Victoria, since 1970; and Dr. W.L. Ford, 60, Atlantic Region, who has been Director of the Atlantic Oceanographic Laboratory, Dartmouth, N.S. since 1965. Staffing is presently under way for the remaining director-general positions.

Referring to the present organization of the Department of the Environment, Mr. Shaw noted that freshwater quality and quantity, river basin studies and research hydrology, with the exception of studies related to fish and other aquatic life, would remain with the Inland Waters Directorate of the Environmental Management Service, while the drafting and implementation of environmental regulations would stay with the Environmental Protection Service.

## Japan Tells Tuna Purse Seiner Status

Five years have elapsed since the Japanese began focusing attention on U.S.-type purse seine fishing for tuna. At present, the number of independently operated tuna seiners in Japan totals 11, ranging in size from 210 to 1,000 gross tons. The United States has a purse seine fleet of around 130 vessels. Some Japanese say that Japan will need at least 30 seiners to establish a tuna seine fishery. A search for the most economic size of seiners continues in Japan, but recent purse seiner construction trends indicate that 500-ton-class vessels, which comprise over

half of the present fleet, are preferred by the Japanese.

The *Nippon Maru* (999 gross tons and about 800 tons carrying capacity), the largest seiner in Japan, began operations in 1971 with a crew of seven Americans and twelve Japanese, but she is now manned only by fifteen Japanese members. In 1971, that vessel, which operated in the eastern Pacific and eastern Atlantic, caught 760 metric tons of fish in 56 sets during four and one-half months of operation. The catch in the second year was 2,100 tons taken in 208 sets during

#### Japanese distant-water tuna purse seiners.

Name of vessel	Size (Gross tons)	Owners
Nippon Maru	999.99	Kaigai Makiami Gyogyo K.K. (Overseas Purse Seine Fishing Company)
Hayabusa Maru	499.99	Taiyo Gyogyo
Hayabusa Maru No. 2	499.96	Taiyo Gyogyo
Wakaba Maru	499.37	Kyokuyo
Hakuryu Maru No. 55	499.06	Kyokuyo
Fukuichi Maru	499.57	Fukuichi Gyogyo
Gempuku Maru No. 82	499	Toyo Gyogyo
Hayabusa Maru No. 3	275.84	Taiyo Gyogyo
Nissho Maru	252.93	Fukuichi Gyogyo
Taikei Maru No. 23	210.20	Ogata Kimpei
Tokiwa Maru No. 58	357.95	Okura Gyogyo

nine months of fishing in the same oceans, and in the third year 1,700 tons were taken in ten months. This year, the *Nippon Maru*, which entered the eastern Pacific yellowfin regulatory area on January 10, reported a catch of 350 tons to February 28. In the South Pacific, 5-6 seiners were reported fishing in late April. The outlook for profitable operations in that region appears hopeful.

Japanese tuna seining in the eastern Atlantic was launched by Nichiro Fisheries in 1964 with five vessels consisting of a 1,600-ton mothership and two pair-boat seiners (pairs of 145-ton and 85-ton seiners). Nichiro continued operations unprofitably for the next nine years and terminated the venture in 1972 because of the deterioration of the vessels.

Sources: *Minato Shimbum*, *Suisan Shuho*, and *Shin Suisan Shimbum*.

#### JAPANESE UNIVERSITY TO BUILD LARGE U.S.-TYPE TUNA PURSE SEINER

The Department of Fisheries of Nagasaki University is building a U.S.-type tuna purse seiner of 1,000-gross-ton size. It will be the second 1,000-ton tuna seiner in Japan and probably the world's first U.S.-type seiner to be used as a training vessel by an educational institution. Construction completion is set for early April 1975.

To be built at an estimated cost of 1,400-1,500 million yen (US\$5-5.4 million at 280 yen=\$1), the seiner will have the following specifications: overall length, 62 meters (203 feet); width, 11.5 meters (38 feet); depth, 5.2 meters (17 feet); main propulsion,

2,800-hp diesel engine; maximum speed, 15 knots; cruising speed, 14 knots. It will carry four instructors and 50 students. Upon completion, the

vessel will be sent on a training cruise to the Coral Sea and the waters north of New Guinea in the southwest Pacific.

#### Publications

### Recent NMFS Scientific Publications

Circular 330, Volume 8. Love, Cuthbert M. (editor). "EASTROPAC Atlas." March 1974. vii + 184 figures. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

#### ABSTRACT

This atlas contains charts depicting the distribution of physical, chemical, and biological oceanographic properties and associated meteorological properties observed during EASTROPAC. EASTROPAC was an international cooperative investigation of the eastern tropical Pacific Ocean (20°N. to 20°S., and from the west coasts of the American continents to 119°W.) which was intended to provide data necessary for a more effective use of the marine resources of the area, especially tropical tunas, and also to increase knowledge of the ocean circulation, air-sea interaction, and ecology. The Bureau of Commercial Fisheries (now National Marine Fisheries Service) was the coordinating agency. The field work, from February 1967 through March 1968, was divided into seven 2-month cruise periods. During each cruise period one or more ships were operating in the study area.

On completion of the field work the data seemed too numerous for a classical data report. Instead, it was decided to produce an 11-volume atlas of the results, with 5 volumes containing physical oceanographic and meteorological data from the principal participating ships, 5 volumes containing biological and nutrient chemistry data from the same ships, and 1 volume containing all data from Latin American cooperating ships and ships of opportunity. Extensive use was made of a computer and automatic plotter in preparation of the atlas charts. Methods used to collect and process the data upon which the atlas is based are described in detail by the contributors of the following categories of charts: temperature, salinity, and

derived quantities; thickness of the upper mixed layer; dissolved oxygen; meteorology; nutrient chemistry; phytoplankton standing stocks and production; zooplankton and fish larvae; micronekton; birds, fish schools, and marine mammals.

NOAA Technical Report NMFS CIRC-388. Shaw, William N. (editor) "Proceedings of the first U.S.-Japan meeting on aquaculture at Tokyo, Japan, October 18-19, 1971." February 1974. 133p. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. (No abstract)

Data Report 84. Saloman, Carl H. "Hydrographic and meteorological observations from Tampa Bay and adjacent waters—1971." 554 p. (9 microfiche). For sale by U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Rd., Springfield, VA 22131.

#### ABSTRACT

Hydrographic data include water temperature, salinity, total phosphorus, total Kjeldahl nitrogen, pH, dissolved oxygen, turbidity, water transparency, chlorophyll *a*, *b*, and *c*, astacin and nonastacin carotenoids, and primary productivity based on chlorophyll *a* extraction. Hourly observations on air and water temperature, rainfall, wind velocity and direction, tidal height, barometric pressure, and daily recordings of solar radiation are also included. Methods of collecting and analyzing samples are described. Tables summarizing data collected from 30 permanent stations according to month and area, tables summarizing data for each individual station of the 30 permanent sites for 1966-71, and tables summarizing the mean, range, and number of observations of samples taken twice daily at the Laboratory dock are included.