



RECENT FISHERY PUBLICATIONS

FISH AND WILDLIFE SERVICE

PUBLICATIONS

THESE PROCESSED PUBLICATIONS ARE AVAILABLE FREE FROM THE DIVISION OF INFORMATION, U. S. FISH AND WILDLIFE SERVICE, WASHINGTON 25, D. C. TYPES OF PUBLICATIONS ARE DESIGNATED AS FOLLOWS:

CFS - CURRENT FISHERY STATISTICS OF THE UNITED STATES AND ALASKA.

SSR.- FISH.-SPECIAL SCIENTIFIC REPORTS--FISHERIES (LIMITED DISTRIBUTION).

SEP.- SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.

Number	Title
CFS - 1735	- Rhode Island Landings, 1957 Annual Summary, 7 pp.
CFS - 1742	- North Carolina Landings, 1957 Annual Summary, 5 pp.
CFS - 1746	- Gulf Fisheries, 1956 Annual Summary 7 pp.
CFS - 1747	- South Carolina Landings, January 1958, 2 pp.
CFS - 1748	- Fish Meal and Oil, January 1958, 2 pp.
CFS - 1749	- Georgia Landings, 1957 Annual Summary, 3 pp.
CFS - 1750	- North Carolina Landings, January 1958, 3 pp.
CFS - 1751	- California Landings, October 1957, 4 pp.
CFS - 1752	- Frozen Fish Report, February 1958, 8 pp.
CFS - 1753	- Georgia Landings, January 1958, 2 pp.
CFS - 1754	- Shrimp Landings, October 1957, 6 pp.
CFS - 1755	- Packaged Fish, 1957 Annual Summary 5 pp.
CFS - 1756	- Canned Fish and Byproducts, 1957 Annual Summary, 21 pp.
CFS - 1758	- New Jersey Landings, 1957 Annual Summary, 5 pp.
CFS - 1759	- New Jersey Landings, January 1958, 3 pp.
CFS - 1760	- Florida Landings, January 1958, 6 pp.
CFS - 1761	- California Landings, November 1957, 4 pp.
CFS - 1762	- Maine Landings, January 1958, 3 pp.
CFS - 1765	- New York Landings, January 1958, 4 pp.
CFS - 1768	- Shrimp Landings, November 1957, 6 pp.
CFS - 1769	- Rhode Island Landings, January 1958, 3 pp.
CFS - 1782	- Maine Landings, February 1958, 3 pp.
CFS - 1784	- Florida Landings, February 1958, 6 pp.
SSR-Fish. No. 228	- Photographic Device for Accurately Measuring Fish, by Clifford W. Long and Raymond A. Arzyłowicz, 17 pp., illus., November 1957. The photographic measuring device described in this paper was developed to aid the work of the International North Pacific

Fisheries Commission. A photographic measuring device using two cameras and strobe illumination has been developed to improve the accuracy of salmon body measurements in the field. The optical theory is given and the device is described in detail. The technique includes calculating longitudinal distances from photographs. The device is considered accurate within ± 0.05 centimeters when ideal subjects are measured.

Sep. No. 509 - New England's Industrial Fishery.

Sep. No. 510 - Twenty-Five Years of Research and Service by the Seattle Technological Laboratory.

THE FOLLOWING SERVICE PUBLICATIONS ARE AVAILABLE ONLY FROM THE SPECIFIC OFFICE MENTIONED.

Landings and Prices of Fishery Products, Boston Fish Pier, 1957 (Includes "Trends in the Fishing Industry at Boston"), by John J. O'Brien, 28 pp., processed, 1957. (Available free from the Market News Service, U. S. Fish and Wildlife Service, 10 Commonwealth Pier, Boston 10, Mass.) Fish marketing trends and conditions in Boston, highlights of fisheries in other New England ports, and highlights of selected foreign fisheries are discussed for 1957. Detailed data on landings and ex-vessel prices of fish and shellfish at the Boston Fish Pier during 1957 are presented. Statistics are given by months and species and by type of gear, together with comparative data for previous years.

California Fishery Products Monthly Summary, February 1958, 10 pp. (Market News Service, U. S. Fish and Wildlife Service, Post Office Bldg., San Pedro, Calif.) California cannery receipts of raw tuna and tunalike fish, herring, mackerel, anchovies, and squid; pack of canned tuna, herring, mackerel, anchovies, and squid; market fish receipts at San Pedro, Santa Monica, San Diego, and Eureka areas; California imports; canned fish and frozen shrimp prices; for the month indicated.

(Chicago) Monthly Summary of Chicago's Fresh and Frozen Fishery Products Receipts and Wholesale Market Prices, February 1958; March 1958; 12 pp. each. (Market News Service, U. S. Fish and Wildlife Service, 565 W. Washington St., Chicago 6, Ill.) Receipts at Chicago by species and by states and provinces; fresh-water fish, shrimp, and frozen fillet wholesale market prices; for the months indicated.

Gulf Monthly Landings, Production, and Shipments of Fishery Products, February 1958; March 1958; 5 pp. each. (Market News Service, U. S. Fish and Wildlife Service, 609-611 Federal Bldg.,

New Orleans 12, La.) Gulf States shrimp, oyster, finfish, and blue crab landings; crab meat production; LCL express shipments from New Orleans; and wholesale prices of fish and shellfish on the New Orleans French Market; for the months indicated.

Monthly Summary of Fishery Products in Selected Areas of Virginia, North Carolina, and Maryland, March 1958, 4 pp. (Market News Service, U. S. Fish and Wildlife Service, 18 So. King St., Hampton, Va.) Fishery landings and production for the Virginia areas of Hampton Roads, Lower Northern Neck, and Eastern Shore; the Maryland areas of Crisfield, Ocean City, and Cambridge; and the North Carolina areas of Atlantic, Beaufort, and Morehead City; together with cumulative and comparative data; for the month indicated.

New England Fisheries--Monthly Summary, February 1958; March 1958; 21 pp. each. (Market News Service, U. S. Fish and Wildlife Service, 10 Commonwealth Pier, Boston 10, Mass.) Reviews the principal New England fishery ports, presenting food fish landings by ports and species; industrial fish landings and ex-vessel prices; imports; cold storage stocks of fishery products in New England warehouses; fishery landings and ex-vessel prices for ports in Massachusetts (Boston, Gloucester, New Bedford, Provincetown, and Woods Hole), Maine (Portland and Rockland), Rhode Island (Point Judith), and Connecticut (Stonington); frozen fishery products prices to primary wholesalers at Boston, Gloucester, and New Bedford; and landings and ex-vessel prices for fares landed at the Boston Fish Pier and sold through the New England Fish Exchange; for the months indicated.

(New York) Monthly Summary - Receipts of Fishery Products at the New York City Wholesale Salt-Water Market, January 1958, 11 pp.; February 1958, 12 pp. (Market News Service, U. S. Fish and Wildlife Service, 155 John St., New York 38, N. Y.) Receipts in the salt-water section of the Fulton Fish Market by species and by states and provinces for the months indicated.

Seattle and Astoria Landings, Receipts, and Value of Fishery Products, 1957, by Charles M. Reedon, 45 pp., processed, 1958. (Available free from Market News Service, U. S. Fish and Wildlife Service, Pier 42, South, Seattle 4, Wash.) The Pacific Northwest fisheries trends and their effect upon Seattle fishery products receipts for 1957 are discussed in the first part of this report. This section covers total receipts of fishery products at Seattle; sources of supply of frozen and fresh fishery products; trends in Seattle receipts of salmon, halibut, tuna, otter-trawl and long-line fishery landings, shellfish, herring meal, and other miscellaneous fishery products and byproducts. The tables present fishery landings and wholesale receipts (including approximate values) at Seattle for 1957 by species, source of origin, and by months; monthly index of receipts of certain fishery products at Seattle; carload shipments of fishery products from Seattle by months; and names, classifications, and approximate standards for fresh and frozen fishery products sold on the Seattle market. The Astoria section includes a discussion

of fisheries trends and fishery products receipts at Astoria, Ore., for 1957. This section covers the Columbia River gill-net fishery; troll and otter-trawl fisheries; halibut, tuna, and shellfish fisheries; imports; Columbia River canned salmon and canned tuna packs; and landings and wholesale receipts of fishery products at Astoria during 1957.

THE FOLLOWING SERVICE PUBLICATIONS ARE FOR SALE AND ARE AVAILABLE ONLY FROM THE SUPERINTENDENT OF DOCUMENTS, WASHINGTON 25, D. C.

"Construction of a Two-Way Weir for the Enumeration of Salmon Migrants," by Donovan R. Craddock, article, The Progressive Fish-Culturist, vol. 20, no. 1, January 1958, pp. 33-37, illus., processed, single copy 25 cents.

"The Cortland, New York, Fishery Station: A Summary of Twenty-Five Years' Work," article, The Progressive Fish-Culturist, vol. 19, no. 4, October 1957, pp. 172-178, processed, single copy 25 cents.

Filtering Rates of the Hard Clam (VENUS MERCENARIA) Determined with Radioactive Phytoplankton, by Theodore R. Rice and Rebecca J. Smith, Fishery Bulletin 129 (From Fishery Bulletin of the Fish and Wildlife Service, vol. 58), 12 pp., illus., printed, 15 cents, 1958.

"An Improved Portable Tattooing Device," by Donald W. Chapman, article, The Progressive Fish-Culturist, vol. 19, no. 4, October 1957, pp. 182-184, processed, single copy 25 cents.

"Maintenance of Immature Sea Herring in Captivity," by Alva E. Farrin, Leslie W. Scattergood, and Carl J. Sindermann, article, The Progressive Fish-Culturist, vol. 19, no. 4, October 1957, pp. 188-189, processed, single copy 25 cents.

Propagation and Distribution of Food Fishes for the Calendar Years 1955-1956, Statistical Digest 42, 46 pp., printed, 20 cents, 1958.

"Use of Stake-Type Boat Anchors in Wing-Net Fishing," by Donald F. Hansen, article, The Progressive Fish-Culturist, vol. 19, no. 3, July 1957, pp. 142-143, illus., processed, single copy 25 cents. Material and construction of this device, consisting of vertical sleeves attached to each end of a boat through which metal stakes are driven into the bottom to anchor the boat, are discussed. Its primary advantage is to permit one man to lift and reset hoop nets.

MISCELLANEOUS PUBLICATIONS

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM. CORRESPONDENCE REGARDING PUBLICATIONS THAT FOLLOW SHOULD BE ADDRESSED TO THE RESPECTIVE ORGANIZATION OR PUBLISHER MENTIONED. DATA ON PRICES, IF READILY AVAILABLE, ARE SHOWN.

BELGIUM:

Rapport Annuel sur l'Evolution de la Flotte de Peche en 1957 (Annual Report on the Progress

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

of the Fishing Fleet during 1957), 43 pp., processed in French. Ministère des Communications, Administration de la Marine, Brussels, Belgium. A statistical report on the status of Belgium's fleet of vessels used in high seas and coastal fishing.

BLOODWORMS:

Biology of the Bloodworm, GLYCERA DIBRANCHIATA Ehlers, and Its Relation to the Bloodworm Fishery of the Maritime Provinces, by W. L. Klawe and L. M. Dickie, Bulletin No. 115, 37 pp., printed, 50 Canadian cents. Fisheries Research Board of Canada, Ottawa, Canada, 1957. (For sale by Queen's Printer, Ottawa, Canada.)

CANADA:

Annual Report of the Department of Natural Resources of the Province of Saskatchewan for the Fiscal Year Ended March 31, 1957, 123 pp., illus., printed. Department of Natural Resources, Province of Saskatchewan, Regina, Saskatchewan, Canada, 1957. A compilation of reports of the branches of the Saskatchewan Department of Natural Resources, including a 19-page report of the Fisheries Branch. The fisheries report covers activities in management, research, fish culture, and administration for commercial and sport fisheries, and biological investigations. Also includes statistical tables on angling licenses; commercial fish production by lakes, 1956/57; commercial production by species, 1934/35 through 1956/57; sales details; commercial production and value by species, 1956/57; annual commercial production and value, 1946/47 through 1956/57; commercial and non-commercial production, 1939/40 through 1956/57; and lake stocking with rainbow and brook trout, grayling, and pickerel fingerlings.

Annual Report of the Fisheries Research Board of Canada, 1956-1957 (For the Fiscal Year Ending March 31, 1957), 195 pp., illus., printed. Fisheries Research Board of Canada, Ottawa, Canada, 1957. Reports on the activities of the biological and technological stations of the Fisheries Research Board of Canada--an organization in charge of advisory, consultative, and administrative functions of fishery research stations and investigations of practical and economic problems connected with the fisheries of Canada. Of particular interest is the report covering the activities of the London, Ontario, biological station which is charged with control investigations for the Great Lakes sea lamprey. The report also covers the work of the Arctic Unit at Montreal in assessing the fishery and marine mammal resources of the Arctic regions.

Department of Fisheries Twenty-Seventh Annual Report, 1956-1957, 99 pp., printed. Department of Fisheries, Ottawa, Canada, 1958. Reports on the work of the various services of the Canadian Department of Fisheries in conservation and development, inspection and consumption, economics, information and education, and industrial development. Also covers the activities of the Fishermen's Indemnity Plan, Fisheries Prices Support Board, Fisheries Research Board of

Canada, and various international commissions and special committees. A summary of progress in the fishing industry is included, followed by several tables of fisheries statistics and an appendix presenting the financial statements of the Department.

Fisheries Council of Canada, Thirteenth Annual Meeting, April 14-16, 1958, Halifax, 79 pp., illus., printed. Fisheries Council of Canada, 77 Metcalfe St., Ottawa 4, Canada. The 1958 annual review and program of the Fisheries Council of Canada. Contains, among other items, the following articles: "The Atlantic Fisheries," by G. J. Gillespie; "The 1957 Fisheries," by W. C. Mackenzie; "Highlights of the Sales Promotion Program," by Ben Dolan; "Marketing New Frozen Fish Products," by Ross Clouston; "Problems in the Lake Erie Fisheries," by Leonard Omstead; "Value of Metal Lobster Traps;" "Fisheries Utilization--The Individual and the Community," by E. L. Harrison; "Federation of West Indies;" and "The European Common Market and Canada's Fish Exports." Details of the annual meeting are also presented.

Fisheries Statistics of Canada, 1956 (New Brunswick), 59 pp., printed in French and English, 50 Canadian cents. Queen's Printer and Controller of Stationery, Ottawa, Canada, 1958. Consists of tables giving the value of the principal species of fish and shellfish in New Brunswick, 1949-56; quantity and value of landings by species and fisheries districts, 1955-56; quantity and value of manufactured fishery products by species and fisheries districts, 1955-56; capital equipment in the primary fisheries operations, by fisheries districts, 1955-56; and the number of persons engaged in the primary fisheries operations, by fisheries districts, 1955-56.

Journal of the Fisheries Research Board of Canada, vol. 15, no. 2, March 1958, pp. 115-274, illus., printed. Queen's Printer and Controller of Stationery, Ottawa, Canada. Contains the following articles: "Energy Considerations in the Bay of Fundy System," by H. J. McLellan; "Proteins in Fish Muscle. II. On the Extraction of Myosin from Cod Muscle with Potassium Iodide," by J. R. Dingle; "Physical Oceanographic Results of the 'Calanus' Expeditions in Ungava Bay, Frobisher Bay, Cumberland Sound, Hudson Strait, and Northern Hudson Bay, 1949-1955," by M. J. Dunbar; "Limnological Studies of Hemming Lake, Manitoba, and Two Adjacent Lakes," by G. H. Lawler and N. H. F. Watson; "Some Aspects of Growth and Reproduction of the Bearded Seal, *Erignathus barbatus* (Erxleben)," by I. A. McLaren; "Some Effects of Temporary Exposure to Low Dissolved Oxygen Levels on Pacific Salmon Eggs," by D. F. Alderdice, W. P. Wickett, and J. R. Brett; and "Rapid Learning of a Constant Course by Travelling Schools of Juvenile Pacific Salmon," by William S. Hoar.

Progress Reports of the Atlantic Coast Stations, no. 68, 27 pp., illus., printed in French and English. Queen's Printer and Controller of Stationery, Ottawa, Canada, January 1958. Contains the following articles: "The Effects of Boring

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

Sponges on Oysters," by F. E. Warburton; "The Commercial Longlining Experiment, St. Anthony, Newfoundland, 1955," by A. M. Fleming; "How Cod Spawn--Nielsen's Observations," by W. Templeman; "A Liver Preservation Procedure," by A. Guttman and F. A. Vandenheuvel; and "Preliminary Biology of Atlantic Salmon of the Little Codroy River, Newfoundland," by A. R. Murray.

COD:

The Bear Island Cod: Migrations and Movements, by G. C. Trout, 51 pp., illus., printed. Her Majesty's Stationery Office, York House, Kingsway, London W. C. 2, England, 1957. Reports on a study of the movements of the shoals of cod at Bear Island in the Barents Sea.

Estudio de los Lípidos de la Carne del Bacalao, GADUS CALLARIAS L. (Study of the Lipids of the Meat of Cod, *Gadus callarias* L.), by Maria Dolores Garcia Pineda, Works of the Spanish Institute of Oceanography, No. 23, 46 pp., illus., printed in Spanish. Instituto Espanol de Oceanografía, Madrid, Spain, 1957.

COLD STORAGE:

Holodil'noe Konservirovanie Rybnyh Produktov (Cold Storage of Fish), by V. P. Zajcev, 340 pp., 121 figs., 47 tables, printed in Russian. Piscepromizdat, Moscow, USSR, 1956. Discusses the characteristics of fish as a foodstuff; effect of low temperatures on microorganisms and post-mortem changes in fish; physical properties of fish and characteristics of refrigerating media; chilling of fish (changes during chilling, duration of refrigeration, heat loads, industrial methods for the chilling of fish); freezing of fish (changes during freezing, freezing rate, heat loads, various freezing methods for fish). Also discusses the production of chilled and frozen fish fillets; storage of chilled and frozen fish, and the thawing of fish in air, ice, liquid media; and rate of thawing and heat requirements.

COMMISSIONS:

Annual Report 1956, International Pacific Salmon Fisheries Commission, 32 pp., illus., printed. International Pacific Salmon Fisheries Commission, New Westminster, Canada, 1957. A report of the Commission, an international agency appointed under a convention between Canada and the United States for the protection, preservation, and extension of the sockeye salmon fisheries in the Fraser River system. Discussed in this report are the various activities of the Commission during 1956; the regulations, the United States fishery, the Canadian fishery, Indian catch statistics, escapement, rehabilitation of barren areas, watershed protection, and general investigations.

CRAYFISH:

"Contractile Protein from Crayfish Tail Muscle," by K. Maruyama, article, The Biological Bulletin, vol. 114, no. 1, February 1958, pp. 95-105, illus., printed, single numbers \$2.50. The Biological Bulletin, Marine Biological Laboratory, Woods Hole, Mass.

ECHO SOUNDING:

Echo Sounding in East Anglia--It Works, Laboratory Leaflet 17, 9 pp., illus., processed. Ministry of Agriculture, Fisheries and Food, Fisheries Laboratory, Lowestoft, England. A number of questions and answers concerning an echo-sounding survey in East Anglia.

ELECTRICAL FISHING:

"Factors Controlling the Input of Electrical Energy into a Fish (*Cyprinus carpio* L.) in an Electrical Field," by Lester V. Whitney and Richard L. Pierce, article, Limnology and Oceanography, vol. 2, no. 2, April 1957, pp. 55-61, printed. Woods Hole Oceanographic Institution, Woods Hole, Mass.

FAR EAST:

"Marine Sciences in the Far East," by Anton Fr. Bruun, article, Current Affairs Bulletin, no. 20, November 1957, pp. 3-8, printed. Indo-Pacific Fisheries Council, Food and Agriculture Organization of the United Nations, Bangkok, Thailand.

FISH POPULATIONS:

The Dynamics of Exploited Fish Populations, by Raymond J. H. Beverton and Sidney J. Holt, illus., printed, \$22.68. British Information Services, 45 Rockefeller Plaza, New York 20, N. Y. The international regulation of fisheries in a region such as Europe, where there are more than a dozen sovereign states keenly interested, has made severe demands on fishery research because year after year negotiators require prediction of one effect or another of man's pressure on the fish population. To meet this demand the authors have written a handbook of all the methodology involved. With the aid of the cases stated and the worked examples given, an approximate solution can be found to any problem of fishery regulation in the world--provided the right data are available; or, if not, this work shows precisely what data are needed. In addition to making available adequate knowledge of population dynamics to all workers in the field of fisheries, many of the authors' methods will be applicable to other living populations, and their theoretical framework should form part of the syllabus of teaching in agriculture, in ecology, in geography, in sociology, and in nature preservation.

FISHWAYS:

"A New Approach to Fish Pass Design," by Drummond Sedgwick, article, The Atlantic Salmon Journal, no. 1, February 1957, pp. 33-36, printed. The Atlantic Salmon Association, Inc., 1559 McGregor St., Montreal 25, Canada.

FLORIDA:

Catches of Fish by Charter Boats on Florida's East Coast, by Robert W. Ellis, Special Service Bulletin No. 14, 13 pp., illus., processed. The Marine Laboratory, University of Miami, Coral Gables, Fla., December 1957. This report is concerned with data on the catches of different species of fish by anglers on charter boats operating on Florida's east coast. The present study was made to determine the major species

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

of fish occurring in the catches of charter boats operating on Florida's east coast, the relative frequency of occurrence of these species, the total amount of fishing time, and the total catch of each major species in this fishery.

FOOD AND AGRICULTURE ORGANIZATION:

The Food and Agriculture Organization has published reports describing that Agency's activities under the Expanded Technical Assistance Program for developing the fisheries of many countries. These reports have not been published on a sales basis, but have been processed only for limited distribution to governments, libraries, and universities. Food and Agriculture Organization, Viale delle Terme di Caracalla, Rome, Italy.

Report to the Government of Brazil on Tuna Fisheries Development (Northeastern Coast of Brazil), based on the work of Robert E. K. D. Lee, FAO Report No. 739, 49 pp., illus., processed, 1957. Technical assistance in fisheries was provided the Government of Brazil to advise and assist the Government in carrying out experimental fishing operations and to advise on various types of fishing craft and gear that may be used most effectively within the country. This report describes general observations on the fisheries of the northeastern coast of Brazil, fishing boats used for demonstration, fishing methods, Japanese tuna fishing off the Brazilian coast, current progress on tuna fishing development, and conclusions and recommendations to the Government of Brazil.

Report on the South Pacific Fisheries Training Course, by H. V. Pel and P. Lusyne, FAO Report No. 753, 17 pp., processed, 1957. This report discusses the organization of a fisheries training course, work of the course, and results achieved. The purpose of this course was to train selected men from as many as possible of the South American territories in some basic knowledge of fisheries and related skills. These men were needed in practically all territories in the area for the development and protection of the fisheries.

FREEZING:

"Chilling and Freezing of Fish," by F. Bramsnaes, *Revista del Frio*, Special Issue, II, July 1957, pp. 49-54, printed in Spanish. *Revista del Frio*, Centro Experimental del Frio, Serrano 150, Madrid, Spain.

"Freezing and Cold Storage of Pacific King Crab Meat," by K. Amano, K. Yamada, M. Bito, and I. Kaneko, article, *Refrigeration*, vol. 32, no. 358, August 1957, pp. 1-9, 1 fig., 26 tables, 19 references, illus., printed in Japanese. Nihon Reito Kyokai (Japanese Society of Refrigeration), No. 3, 1-Chome, Ginza Nishi, Chuo-ku, Tokyo, Japan.

FUR SEALS:

North Pacific Fur Seals (Interim Convention Between the United States of America, Canada, Japan, and the Union of Soviet Socialist Republics--Signed at Washington, February 9, 1957),

Treaties and Other International Acts Series 3948, 60 pp., printed in English, Japanese, and Russian, 20 cents. (For sale by the Superintendent of Documents, Washington 25, D. C.) Department of State, Washington, D. C. An interim convention on the conservation of North Pacific fur seals was signed at Washington on February 9, 1957, by the respective representatives of the Governments of the United States, Canada, Japan, and the Union of Soviet Socialist Republics, and entered into force October 14, 1957. The text of the convention is presented word for word in the English, Japanese, and Russian languages.

GEAR:

Analysis of the Action of Spherical Trawl Floats, by I. G. Smyslov, 7 pp., processed. (Reprinted from Proceedings of the All-Union Scientific Research Institute of Sea Fishery and Oceanography, vol. 30, 1955, pp. 31-35), Ministry of Agriculture, Fisheries and Food, Fisheries Laboratory, Lowestoft, England. The author describes in detail the action of spherical trawl nets, and states that "With spherical floats it is impossible to increase to any great extent the vertical opening of a trawl at the usual trawling speeds, or to maintain the existing vertical opening at increased speeds. Instead of spherical floats, therefore, it is necessary to use spacing devices in which the hydrodynamic forces of the contrary flow during trawling are utilized. These spacing devices may consist of hydrodynamic floats, sheets of foam plastic, wooden support boards, sheets in the form of an aeroplane's wing and many other hydrodynamic forms."

"Is 'Bang Up' Bang On?" article, *World Fishing*, vol. 7, no. 3, March 1958, pp. 39-40, illus., printed. John Trundell (Publishers) Ltd., Temple Chambers, Temple Ave., London E. C. 4, England. Discusses the difference between the German and Scottish method of handling large trawls. The merits and disadvantages of the "bang up" method, as it is known, are discussed.

Results of Hydrodynamic Tests on Trawl Floats, by A. I. Yakovlev, 22 pp., processed. (Reprinted from Proceedings of the All-Union Scientific Research Institute of Sea Fishery and Oceanography, vol. 30, 1955, pp. 36-56), Ministry of Agriculture, Fisheries and Food, Fisheries Laboratory, Lowestoft, England, 1957. Describes in detail the floats and various devices for fitting to the head ropes of trawls, hydrodynamic characteristics of floats, method of conducting hydrodynamic tests with trawl floats, results of hydrodynamic tests with experimental trawl floats, and conclusions.

GENERAL:

The Chemical Control of Aquatic Nuisances, by Kenneth M. Mackenthun, 64 pp., illus., printed. Committee on Water Pollution, Madison, Wis., January 1958. A report on the use of chemicals on lakes, ponds, and streams for the control of algae, weeds, and other aquatic nuisances. In the introduction, the author discusses the general methods of control, history of the control program, general

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

procedure, and statutory procedure. Under sections on aquatic rooted vegetation, algae, and swimmers' itch, the author discusses the nature and development of the nuisance, chemical control equipment and application details, and effects of treatment.

Fisherman's Guide to the Fishes of the Eastern Gulf of Mexico and South Atlantic Coast, compiled by Russell W. Cumley, 64 pp., illus., printed. Professional Publication Producers, 1603 Oakdale St., Houston 4, Texas, 1957.

Fishes of the World, by Edouard le Danois with the collaboration of Jacques Millot, Theodore Monod, and Paul Budker, 190 pp., illus., with 80 photogravure plates, 30 color photographs, and text illustrations, printed, \$12.50. The Countryman Press, Woodstock, Vt. A comprehensive encyclopedia of the world's fishes, including scientific data on the various species and habits. The book is beautifully illustrated with excellent photographs, many of them in color. There are six chapters on some natural laws in the ocean; the northern, temperate, tropical, and southern regions; and the depths of the ocean.

Handbook of Selected Biological References on Water Pollution Control, Sewage Treatment, Water Treatment, by William Marcus Ingram, Public Health Service Publication No. 214 (revised 1957), 107 pp., illus., printed, 45 cents. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) U. S. Public Health Service, Washington, D. C. A section on fish is included in the selected biological references applicable to water pollution control.

The World Beneath the Waves, by Gilbert Doukan, translated by A. and R. M. Case, 356 pp., printed, \$6. John De Graff, Inc., 31 East 10th St., New York 3, N. Y.

HALIBUT:

Pacific Halibut Fishery Regulations (Effective March 29, 1958), 13 pp., printed. International Pacific Halibut Commission, Fisheries Hall No. 2, University of Washington, Seattle 5, Wash., March 1958.

HERRING:

Extent of Herring Spawning in British Columbia in 1957, by D. Outram, Circular No. 46, 12 pp., illus., processed. Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada.

On the Herring of the Southern North Sea (Contributions to Special Herring Meetings, 1956), Rapports et Proces-Verbaux des Reunions, vol. 143, Part I, 42 pp., illus., printed, Kr. 10 (US\$1.45). Conseil Permanent International pour l'Exploration de la Mer (International Council for Exploration of the Sea), Charlottenlund Slot, Denmark, October 1957.

INDIA:

Fish Farming, 26 pp., illus., printed. Government Fisheries Information Bureau, Madras-8, India, 1956.

A Fishing Calendar for the East Coast of Madras State, by P. I. Chacko and S. George, Contribution from the Marine Biological Station, West Hill, No. IV, 16 pp., printed. Superintendent, Government Press, Branch Press, Pudukkottai, India, 1956.

A Fishing Calendar for the West Coast of Madras State, by P. I. Chacko and S. George, Contribution from the Marine Biological Station, West Hill, Malabar Coast, No. III, 31 pp., printed. Superintendent, Government Press, Branch Press, Pudukkottai, India, 1956.

Madras Fish Facts, 1956, edited by P. I. Chacko, 12 pp., printed. Superintendent, Government Press, Madras, India, 1956.

JAPAN:

Annual Report of Catch Statistics on Fishery and Aquiculture, 1956, Agriculture, Forestry, and Fishery Statistics Bulletin 32-32, 378 pp., printed in Japanese and English. Association of Agriculture-Forestry Statistics, No. 4, 1-chome, Onden, Shibuya-ku, Tokyo, Japan, December 1957. Contains statistical information on the 1956 production from marine fisheries--whaling, factoryship-type pelagic fishery on high seas, and domestic marine fisheries; culture in shallow seas; inland water fisheries and fish culture; and processing. Also presents market prices of fishery commodities and consumption of petroleum products for fisheries. Two glossaries containing the classification of type of fisheries and classification of fish species are also included.

Journal of the Faculty of Fisheries and Animal Husbandry, Hiroshima University, vol. 1, no. 3, pp. 303-397, December 1957, illus., printed. The Faculty of Fisheries and Animal Husbandry, Hiroshima University, Fukuyama, Japan. Contains, among others, the following papers: "Radioactivity in the River Water, Brackish-Water, Sea Water, and the Laver at River Mouth, Derived from Radioactive Rain Water," by Isao Takesita and Shunpei Kakuda; and "On the Forming Season of Annual Rings (Opaque and Translucent Zones) in the Otoliths of Several Marine Teleosts," by Takaaki Irie.

Postwar Developments in Japan's Foreign Trade, 253 pp., processed. U. S. Tariff Commission, Washington 25, D. C., March 1958. An extensive report on Japan's foreign trade, containing five chapters on (1) factors shaping the foreign trade of Japan, (2) Japan's foreign trade policy, (3) Japan's foreign trade, (4) Japan's balance of payments, (5) trade between the United States and Japan, and (6) competition between United States and Japanese exports in third markets. Fishery products and byproducts are included in the tables on exports of selected miscellaneous products; and United States imports from Japan, by principal commodities.

Technical Report of Fishing Boat, No. 11, 55 pp., illus., printed in Japanese with brief English abstracts. Fishing Boat Laboratory, Production Division, Ministry of Agriculture and Forestry,

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

Tokyo, Japan, January 1958. Contains the following reports, with very brief abstracts in English: "Propagation Characteristic of 1 Mc Ultrasonic Sound in Sea Water," by Tomiju Hashimoto, Yoshimitsu Kikuchi, Yoshinobu Maniwa, and Minoru Nishimura; "Study on Ultrasonic Reflection Loss on Fish-Body (On the Influence of the Air Bladder)," by Tomiju Hashimoto and Yoshinobu Maniwa; and "Study on the Ultrasonic Wave Form Reflected on the Sea Bottom, Fish Schools, and Seaweeds," by Yoshinobu Maniwa.

KENYA:

Lake Victoria Fisheries Service, Annual Report 1956/57, 22 pp., illus., printed. East Africa High Commission, Nairobi, Kenya, 1957. Reports on the general activities of the Lake Victoria Fisheries Service, including studies on motor fishing vessels, radio equipment, motor transport, fishing craft, experimental fishing, tilapia fish ponds, fish marking, illegal fishing, deep-water surveys, net trials and fish culture. Also presents summaries of annual catches in 1956 at recording stations in Uganda, Tanganyika, and Kenya.

NIGERIA:

Annual Report of the Federal Fisheries Service for the Year 1955-56, 11 pp., illus., printed. Federal Government Printer, Lagos, Federation of Nigeria, 1957. Contains a history of the growth of fisheries work in Nigeria, and a discussion of the federal research program which covers scientific research and technological investigations. Activity reports of the Sea Fisheries Section and the Fish Culture and Inland Fisheries Section are also included.

OCEANOGRAPHY:

"Oceanography and its Necessity for Fisheries Programme in the Indo-Pacific Region," by H. U. Sverdrup, article, Current Affairs Bulletin, no. 20, November 1957, pp. 1-2, printed. Indo-Pacific Fisheries Council, Food and Agriculture Organization of the United Nations, Bangkok, Thailand.

Travaux du Centre de Recherches et D'Etudes Oceanographiques (Works of the Center for Oceanographic Research and Studies), Fasc. I, Tome III, March 1958, 68 pp., illus., printed in French. Centre de Recherches et D'Etudes Oceanographiques, 1 Quai Branly, Paris 7^e, France. Contains the following articles: "Resultats de Quelques Mesures de Courants Profonds" (Results of Some Measurements of Depth Currents), by V. Romanovsky; "Le Courantographie BBT-NEYRPIC" (The BBT-NEYRPIC Current-Graph), by J. Duroche and J. Serpaud; "Les Causes d'Erreurs dans la Mesure des Courants au Point Fixe" (The Cause of Errors in Measurements of Currents at a Fixed Point), by V. Romanovsky; and "Observations Oceanographiques des Navires Stationnaires Meteorologiques" (Oceanographic Observations of Stationary Meteorological Vessels).

OYSTERS:

"Pond Culture of Oysters at Bears Bluff Promising," article, South Carolina Wildlife, vol. 5,

no. 1, Winter 1958, pp. 4-5, 18, illus., printed. South Carolina Wildlife Resources Department, 1015 Main St., Columbia, S. C. Describes briefly the life history of the oyster, the construction of ponds, and the early work in South Carolina on the culture of oysters. The pond culture of oysters was begun in 1944 but had been practically abandoned since 1950, due to lack of funds and personnel and a series of drought years. Since funds from a grant have become available, a one-acre pond has been partially cleaned of accumulated silt and a part of the floor shelled, hardened, and planted with seed oysters. Engineering work for the control of salinity is also under way, with pipe lines and a pump installed. The article states that "In addition to producing better quality oysters, the cultivation and growing of oysters in ponds provides valuable information, particularly in solving such problems as how to control oyster diseases and predation."

"Some Aspects of Behavior of Oysters at Different Temperatures," by V. L. Loosanoff, article, The Biological Bulletin, vol. 114, no. 1, February 1958, pp. 57-70, illus., printed, single numbers \$2.50. The Biological Bulletin, Marine Biological Laboratory, Woods Hole, Mass.

PLANKTON:

"Life History of a Dinoflagellate Bloom," by Robert A. Ragotzkie and Lawrence R. Pomeroy, article, Limnology and Oceanography, vol. 2, no. 2, April 1957, pp. 62-69, printed. Woods Hole Oceanographic Institution, Wood Hole, Mass.

PRESERVATION:

"How Antibiotic-Treated Fish Reacts Under Actual Storage Conditions," by Lionel Farber and Peter Lerke, article, Quick Frozen Foods, vol. XX, no. 8, March 1958, pp. 154-157, printed, single copy 50 cents. E. W. Williams Publications, Inc., 82 Wall St., New York 5, N. Y. This report presents the results of experiments on the keeping quality of antibiotic-treated fish under practical operating conditions existing in fish plants. Storage experiments in fish plants of fillets of rockfish and of sole were carried out, comparing the effect of a 5-percent saline dip with a dip in 5-percent salt solution containing 5 or 10 p.p.m. of chlortetracycline (CTC). The CTC-dip treatment definitely prolonged the storage time of the fillets. On being taken out of the water on shipboard, various whole flatfish were placed in plain ice and in ice containing 10 p.p.m. of CTC until they were landed ashore. Then they were stored at atmospheric temperature. The preliminary CTC-ice treatment aboard ship had a definite prolonging effect on the subsequent storage time compared to fish stored originally in plain ice. The possible influence on the storage times of such factors as storage temperature, initial bacterial loads, and history of the fish between the time of removal from the water and landing ashore were also briefly discussed.

"Storage Test of Sea Fish in Aureomycin Ice Under Tropical Climate," by J. Ducroz, article, Rev. d'Elevage et de Medecine Veterinaire, No. 2, 1957, pp. 147-150, 2 diagrams, illus., printed

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

in French. *Revue d'Elevage et de Medecine Veterinaire des Pays Tropicaux*, 23 Rue de L'Ecole de Medecine, Paris 6, France.

"Temperature Distribution in Fish Cooled in a Liquid Medium" (*Raspredelenije Temperatury v Tele Ryby pri Ohlazdenii Jeje v Zidkoj Srede*), by G. Konokotin, article, *Kholodil'naia Tekhnika*, USSR, No. 1, January-March 1957, pp. 27-30, 4 figures, illus., printed in Russian. *Kholodil'naia Tekhnika*, c/o Four Continent Book Corp., 38 W. 58th St., New York 19, N. Y. Recommendations are made in this article to precool trawled fish in additionally salted sea water at temperatures not lower than -4° C. ($+26^{\circ}$ F.). The preliminary cooling leads to a 3-4 fold decrease in ice requirements, increasing the effective tonnage of the trawler. The storage life of the fish is increased by 3-4 days. Experimental data are presented on the temperature distribution in the fish body (large cod) on cooling in brine at various temperatures. Care should be taken to prevent freezing of the fish during cooling.

RADIATION:

The Effects of Atomic Radiation on Oceanography and Fisheries, by Roger Revelle, Publication No. 551, 137 pp., illus., printed, \$2. National Academy of Sciences, 2101 Constitution Ave., N. W., Washington, D. C. Summarizing present knowledge and areas of ignorance that must be taken into account in considering the biological effects of radiation.

Radioactivity in Reef Fishes of Belle Island, Eniwetok Atoll, April 1954-November 1955, by Arthur D. Welander, 43 pp., illus., processed, \$1.25. Applied Fisheries Laboratory, University of Washington, Seattle, Wash., May 17, 1957. (For sale by the Office of Technical Services, Commerce Department, Washington 25, D. C.).

REFRIGERATION:

Rybpromyslennye Refrizeratornye Suda (Refrigerated Fishing Boats), by V. P. Zajcev, A. E. Nitockin, and V. L. Survillo, 302 pp., 144 figs., 27 tables, printed in Russian. Gosudarstvennoe Sojuznoe Izdatel'stvo Sudostroitel'noj Promyslennosti, Leningrad, USSR, 1957. Covers the importance of refrigerated fishing boats, their characteristics and installation. Discusses the technical basis of refrigeration on board and transport of fish (various processes for the chilling and freezing of fish, production of chilled and frozen fish fillets, etc.); refrigeration machines, their installation and basis of operation; machines and plants on board ships for the chilling of fish; types of refrigerated boats used in the fishing industry and their general arrangement; heat transmission through the insulation of boats and testing of refrigerated boats; and some problems on the rational operation of refrigerated boats.

RIVER POLLUTION:

The Treatment of Trade-Waste Waters and the Prevention of River Pollution (Proceedings of a Course held in the Department of Civil Engineering, King's College, Newcastle upon Tyne, April 1-12, 1957), 326 pp., printed. Public

Health Engineering Section, University of Durham, King's College, in association with Contractors' Record Ltd., London, England, 1957.

SALMON:

"Effects of DDT Spraying on Young Salmon and Their Food," article, *The Atlantic Salmon Journal*, no. 4, December 1956, pp. 33-34, printed. The Atlantic Salmon Association, Inc., 1559 McGregor St., Montreal 25, Canada.

"The Potential Application of Antibiotics in the Salmon Canning Industry. II--Chemical and Bacteriological Evaluations," by J. A. Stern, H. L. Liebman, G. Kudo, J. Chapel, R. A. Olsen, L. L. Farber, and M. Grennan, article, *Food Technology*, vol. 12, no. 3, March 1958, pp. 132-137, illus., printed, single copies of periodical--domestic US\$1.50, foreign US\$1.75. (Published by the Institute of Food Technologists.) The Garrard Press, 510 North Hickory, Champaign, Ill. Describes an investigation conducted to determine the effects of antibiotics on the retardation of spoilage of sockeye salmon. Under the conditions of this investigation, oxytetracycline and chlortetracycline retarded the spoilage of sockeye salmon. The over-all storage life appeared to be extended by a factor approximating 1.5 over the cases where no antibiotics were used. Extension of storage time was dependent on temperature. At the high storage temperatures ($65 \pm 5^{\circ}$ F.), the absolute time of extension was relatively small, while at 32° F., the absolute time of extension was considerable. Chemical and organoleptic examinations substantiated the above conclusions. Results of the bacterial examination were inconclusive, probably due to the fact that the samples were stored at freezing temperatures prior to examination. Assays for residual antibiotic activity in the canned product were negative.

Recent British Columbia Spring and Coho Salmon Tagging Experiments and a Comparison with those Conducted from 1925 to 1930, by D. J. Milne, Bulletin No. 113, 56 pp., printed, 50 Canadian cents. Fisheries Research Board of Canada, Ottawa, Canada, 1957. (For sale by Queen's Printer, Ottawa, Canada.)

Salmon Research and Hydroelectric Power Development, by J. R. Brett, Bulletin No. 114, 26 pp., printed, 50 Canadian cents. Fisheries Research Board of Canada, Ottawa, Canada, 1957. (For sale by Queen's Printer, Ottawa, Canada.)

Salmon Spawning Report--British Columbia, 1957, 14 pp., processed. Department of Fisheries, Vancouver, B. C., Canada, March 17, 1958. A report covering the seeding of the salmon spawning areas of British Columbia for 1957. Developments or trends of the 1957 migration and spawning escapement of salmon, by species and areas, are discussed.

"Sweden Adopts Artificial Propagation," article, *The Atlantic Salmon Journal*, no. 1, February 1957, pp. 11-12, printed. The Atlantic Salmon Association, Inc., 1559 McGregor St., Montreal 25,

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

Canada. In order to find answers to the many problems created by hydroelectric development of Sweden's rivers, the Migratory Fish Committee was formed which collaborated with the Swedish State Power Board and private companies in several studies. These studies revealed that salmon reared to 6 inches before stocking attained a weight of 4 pounds after 18 months in the sea, 12 pounds at the end of the third year, and 20 pounds after 4 years, and that only 2 of 80 tagged fish recaptured inshore had strayed from their "parent" stream. According to calculations, a return of at least 5 percent would be necessary to make artificial propagation a "paying proposition."

SEA MAMMALS:

Seals, Sea Lions, and Walrus (A Review of the Pinnipedia), by Victor B. Scheffer, 189 pp., illus., printed, \$5. Stanford University Press, Stanford, Calif., 1958. A systematic account of the pinnipeds. Drawing upon man's increased knowledge of life in the sea, especially in the polar regions, and on his greater understanding of the processes of animal evolution, the author has examined in a fresh light the pattern of distribution and variation displayed by the seals and their relatives. Taxonomic history, geographic range, and population estimates are given for each of the forty-seven kinds of pinnipeds, and an attempt has been made to estimate their world population. Pinniped adaptations in body form and function to life in the sea are explained, and the author traces the evolution of the order and its subdivisions from its precarnivore ancestors. A synoptic key enables the reader to identify each of the twenty genera on the basis of distinctive features of size and shape, pelage, skeleton, and behavior.

SEAWEED:

"Studies on the Physiology of a Laver, *Porphyra tenera* Kjellm. III. - Chemical Factors Influencing Upon the Photosynthesis," by Hideo Iwasaki and Chikayoshi Matsudaira, article, *The Tohoku Journal of Agricultural Research*, vol. VIII, no. I, July 1957, pp. 47-54, illus., printed. Office, Faculty of Agriculture, Tohoku University, Sendai, Japan.

SHRIMP:

Observations on the Structural Development of the Genitalia and the Impregnation of the Pink Shrimp, *PENAEUS DUORARUM* Burkenroad, by Bonnie Eldred, Technical Series No. 23, 26 pp., illus., printed. Florida State Board of Conservation Marine Laboratory, St. Petersburg, Fla., January 1, 1958.

SPAIN:

Estadística de Pesca, Año 1956 (Fishery Statistics, Year 1956), 272 pp., printed in Spanish. Ministerio de Comercio, Dirección General de Pesca Marítima, Madrid, Spain. A purely statistical report presenting the weight and value of fish and shellfish by ports, regions, species, and months. Also contains tables on fishing gear, vessels, and canning factories.

III Reunion sobre Productividad y Pesquerías (Third Meeting on Production and Fisheries),

121 pp., processed in Spanish. Instituto de Investigaciones Pesqueras, Patronato "Juan de la Cierva" de Investigación Técnica, Barcelona, Spain. A collection of 31 articles presented at the third meeting on marine fishery and production held during September 10-14, 1957, in Spain, by the Institute of Fishery Investigation of the "Juan de la Cierva" Foundation for Technical Investigation. The various articles cover, among others, the following topics pertaining to Spanish fisheries: sardine (*Sardina pilchardus* Walb.) fishery; trawling problems in deep waters; limits and seasons for trawling in the Mediterranean Sea; and biological and statistical data on tuna (*Thunnus thynnus* L.).

TAGGING:

"Preliminary Experiments on the Use of Spaghetti Tags," by L. B. Tebo, Jr., article *Proceedings of the Tenth Annual Conference, Southeastern Association of Game and Fish Commissioners*, October 1957, pp. 77-80, printed. Southeastern Association of Game and Fish Commissioners, Columbia, S. C.

TARIFFS:

United States Customs Valuation Procedure, 54 pp., \$1. National Council of American Importers, Inc., 45 East 17th St., New York 3, N. Y. This booklet outlines the new United States Customs Simplification Act of 1956, which became effective on February 27, 1958. Part I consists of explanatory notes showing parts of the complete text of the new value section 402; part II gives the text of the two value sections in parallel columns to permit a comparison of the differences in phraseology; and part III contains the final list of articles that will continue to be appraised under the old valuation method, section 402a.

TERRITORIAL WATERS:

United Nations Conference on the Law of the Sea. United Nations, New York, N. Y. The following processed reports have been issued:

A/CONF.13/1. 110 pp., September 20, 1957. Memorandum concerning historic bays. Preparatory document no. 1. By the Secretariat of the UN.

A/CONF.13/2. 28 pp., including annex, September 30, 1957. Scientific considerations relating to the continental shelf. Preparatory document no. 2. Memorandum by the Secretariat of UNESCO.

A/CONF.13/3. 46 pp., October 4, 1957. The economic and scientific basis of the principle of abstention. Preparatory document no. 3. By Richard van Cleve, Director and Professor, School of Fisheries, University of Washington.

A/CONF.13/4. 30 pp., October 4, 1957. The law of the air and the articles concerning the law of sea adopted by the International Law Commission at its 8th session. Preparatory document no. 4. By E. Pepin, Director of the Institute of International Air Law, McGill University.

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

- A/CONF.13/5. 98 pp., October 23, 1957. Comments by governments on the articles concerning the law of the sea prepared by the International Law Commission at its 8th session. Preparatory document no. 5.
- A/CONF.13/5/Add.1.--14 pp., November 7, 1957.
- A/CONF.13/6. 93 pp., maps. October 23, 1957. A brief geographical and hydrographical study of straits which constitute routes for international traffic. Preparatory document no. 6. By Commander R. H. Kennedy, O. B. E., R. N. (Retd.).
- A/CONF.13/8. 8 pp., October 29, 1957. Memorandum on pollution of the sea by oil. Preparatory document no. 8. Prepared by the Secretariat of the UN.
- A/CONF.13/9. 1 p., November 5, 1957. Provisional agenda. Prepared by the Secretariat of the UN.
- A/CONF.13/10. 19 pp., November 5, 1957. Provisional rules of procedure. Prepared by the Secretariat of the UN.
- A/CONF.13/11. 12 pp., November 5, 1957. Memorandum concerning the method of work and procedures of the Conference. By the Secretariat of the UN.
- A/CONF.13/12. 26 pp., including annex., November 6, 1957. Technical particulars concerning the methods of fishing conducted by means of equipment embedded in the floor of the sea. Preparatory document no. 9. By the Secretariat of FAO.
- A/CONF.13/13. 33 pp., November 6, 1957. Examination of living resources associated with the sea bed of the continental shelf with regard to the nature and degree of their physical and biological association with such sea bed. Preparatory document no. 10. By the Secretariat of FAO.
- A/CONF.13/14. 9 pp., November 12, 1957. Guide to instruments affecting the legal status of straits. Preparatory document no. 11. Prepared by the Secretariat of the UN.
- A/CONF.13/15. 100 pp., November 13, 1957. A brief geographical and hydrographical study of bays and estuaries, the coasts of which belong to different states. Preparatory document no. 12. Prepared by Commander R. H. Kennedy, O. B. E., R. N. (retd.).
- A/CONF.13/16. 41 pp., November 20, 1957. The economic importance of the sea fisheries in different countries. Preparatory document no. 13. By the Secretariat of FAO.
- A/CONF.13/17. 56 pp., Trilingual text (English, French and Spanish), November 21, 1957. Bibliographical guide to the law of the sea. Preparatory document no. 14. Prepared by the Secretariat of the UN.
- A/CONF.13/18. 38 pp., November 29, 1957. Certain legal aspects concerning the delimitation of the territorial waters of archipelagos. Preparatory document no. 15. By Jens Evensen, Advocate at the Supreme Court of Norway.
- A/CONF.13/19. 299 pp., December 3, 1957. Verbatim record of the debate in the 6th Committee of the General Assembly, at its 11th session, relating to agenda item 53(a). Volume 1.
- A/CONF.13/20. 12 pp., January 30, 1958. Report of the Secretary-General on the preparation of the conference.
- A/CONF.13/21. 182 pp., December 12, 1957. Reference guide to resolutions and records concerning the law of the sea adopted by worldwide or regional international conferences and meetings.
- A/CONF.13/22. 16 pp., December 17, 1957. Guide to decisions of international tribunals relating to the law of the sea. Preparatory document no. 17. By the Secretariat of the UN.
- A/CONF.13/22/Corr.1. 1 p., January 13, 1958. English only.
- A/CONF.13/23. 43 pp., December 17, 1957. List in chronological order of international agreements relating to fisheries and other questions affecting the utilization and conservation of the resources of the sea. Preparatory document no. 18. Prepared by the Secretariat of the UN. Trilingual text (English, French and Spanish).
- A/CONF.13/25. 35 pp., January 3, 1958. Recent developments in the technology of exploiting the mineral resources of the Continental Shelf.
- A/CONF.13/27. 244 pp., January 9, 1958. United Nations Legislative Series. Supplement to laws and regulations on the regime of the high seas, vols. I and II, and laws concerning the nationality of ships.
- A/CONF.13/28. 7 pp., January 13, 1958. Resolutions by and communication from the International Council of Scientific Unions concerning part II, section III of the articles concerning the law of the sea (continental shelf). Transmitted by UNESCO.
- A/CONF.13/29. 67 pp., January 14, 1958. Memorandum concerning the question of free access to the sea of land-locked countries.
- A/CONF.13/31. 9 pp., January 24, 1958. Comments on the articles concerning the law of the sea adopted by the International Law Commission at its eighth session.
- A/CONF.13/32. 25 pp., January 24, 1958. Text of the articles concerning the law of the sea adopted by the International Law Commission at its eighth session.

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

A/CONF.13/33. 7 pp., February 4, 1958. Initial list of documents for the United Nations Conference on the Law of the Sea.

TEXAS:

A Checklist of Texas Fresh-Water Fishes, by Clark Hubbs, IF Series No. 3, 11 pp., printed, Division of Inland Fisheries, Texas Game and Fish Commission, Austin, Tex., 1957.

TILAPIA:

"Preliminary Studies on Tilapia Mossambica Peters Relative to Experimental Pond Culture," by H. D. Kelly, article, Proceedings of the Tenth Annual Conference, Southeastern Association of Game and Fish Commissioners October 1957, pp. 139-149, printed. Southeastern Association of Game and Fish Commissioners, Columbia, S. C.

TRADE LISTS:

The Office of Economic Affairs, Bureau of Foreign Commerce, U. S. Department of Commerce, Washington 25, D. C., has published the following mimeographed trade lists. Copies may be obtained by firms in the United States from that office or from Department of Commerce field offices at \$2 each.

Oils (Animal, Fish, and Vegetable)--Importers, Dealers, and Producers, Bolivia, 4 pp. (February 1958). Lists the name and address, size of firm, and type of product handled by each firm. Includes firms dealing in fish oils.

Oils (Animal, Fish, and Vegetable)--Importers, Dealers, Producers, Refiners, and Exporters--Lebanon, 8 pp. (February 1958). Lists the name and address, size of firm, and type of product handled by each firm. Includes firms dealing in fish and fish-liver oils. Statistics are given covering the different kinds of oils (including cod liver and other fish oils) imported into or exported from Lebanon during 1956. No fish oil is produced in Lebanon.

Canneries--Portugal, 14 pp. (February 1958). Lists the names of canneries and addresses, size of firm and types of products handled, and registered annual capacity of firms. The report is divided into three parts, including Part I--Fish Canneries. The report states that the fish canning industry in Portugal is one of its major industries. The country's total exports of canned fish in 1956 amounted to 139.3 million pounds. Imports of canned food products totalled 9.4 million pounds of which fish products accounted for 44.6 thousand pounds.

Oils (Animal, Fish, and Vegetable)--Importers, Dealers, Producers, Refiners, and Exporters, Syria, 17 pp. (February 1958). Lists the name and address, size of firm, and type of product handled by each firm. Includes firms dealing in fish and fish-liver oils.

TRANSPORTATION:

"The Transport of Foodstuffs by Air in Warm Climates," article, Revue Pratique du Froid, May 1957, pp. 36-38, illus., printed in French. Revue Pratique du Froid, 254 Rue de Vaugirard,

Paris 15, France. Describes some achievements in air transport of perishable foodstuffs with regard to waterproof packaging to maintain the moisture content and the normal ground-level pressure. Insulated packaging and packaging with water ice and carbon dioxide ice are described.

TROPICAL FISHES:

Encyclopedia of Tropical Fishes (with Special Emphasis on Techniques of Breeding), by Herbert R. Axelrod and William Vorderwinkler, 732 pp., illus., printed, no price given. T. F. H. Publications, Inc., 57 Academy St., Jersey City, N. J. (Distributed to the Book Trade by Sterling Publishing Co., Inc., 121 East 24th St., New York, N. Y.)

TUNA:

"The Food of Tunas," by Donald deSilva, article, Bulletin of the International Oceanographic Foundation, vol. 2, no. 1, March 1956, pp. 37-48, printed. The Marine Laboratory, University of Miami, Coral Gables, Fla.

UNDERWATER PHOTOGRAPHY:

"A New Deep-Sea Underwater Camera," by A. S. Laughton, article, Deep Sea Research, vol. 4, no. 2, April 1957, pp. 120-125, printed. Deep Sea Research (Papers in Marine Biology and Oceanography) Pergamon Press, 122 East 57th St., New York 22, N. Y.

UNITED KINGDOM:

Herring Industry Accounts, 1956-1957, 7 pp., printed. Her Majesty's Stationery Office, London, England. Shows the sums received and paid out of the Herring Marketing Fund for the purpose of making loans in connection with export, or for undertaking operations involving the outlay of working capital (all of which was required for the Board's herring oil and meal schemes). No advances were required by the Board during the year in respect to schemes connected with export. Also shows an account of the Herring Industry Board's receipts and payments of grants for the purchase of vessels and engines, and a statement with respect to the application of money advanced to the Board out of the fisheries (Scotland) and herring industry vote.

Journal of the Marine Biological Association, vol. 37, no. 1, February 1958, pp. 1-266, illus., printed. Cambridge University Press, 32 East 57th St., New York 22, N. Y. Includes, among others, the following papers: "Sea Temperatures in Plymouth Sound," by L. H. N. Cooper; "A Single-Solution Method for the Determination of Soluble Phosphate in Sea Water," by J. Murphy and J. P. Riley; "Note on the Temperature Tolerances of Some Intertidal Animals in Relation to Environmental Temperatures and Geographical Distribution," by A. J. Southward; "The Modes of Action of Toxic Agents. III. Mercuric Chloride and n-Amylmercuric Chloride on Crustaceans," by E. D. S. Corner and F. H. Rigler; "Eudactylina rachelae n. sp., a Copepod Parasitic on the Electric Ray, Torpedo nobiliana Bonaparte," by J. Green; "The Chemistry of

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

Ethylenediamine Tetra-Acetic Acid in Sea Water," by C. P. Spencer; "Nematodes Parasitic on Sea Weeds of the Genera *Ascophyllum* and *Fucus*," by John W. Coles; "The Distribution of Intertidal Organisms Along the Coasts of the English Channel," by D. J. Crisp and A. J. Southward; and "Studies on Marine Flagellates. IV. Morphology and Microanatomy of a New Species of *Chrysochromulina*," by Mary Parke, Irene Manton, and B. Clarke.

Living Silver: An Impression of the British Fishing Industry, by Burns Singer, 232 pp., illus., printed, 25s. (US\$3.50). Secker & Warburg, London, England. A well-written account of the British fishing industry, containing a detailed description of all the main fishing methods. The

business of fishing is described from the viewpoint of fishermen, and although it contains specialized technical knowledge it is so arranged and vividly displayed as to appeal to anybody with a normal layman's interest in marine matters.

WISCONSIN:

"Federal Fisheries Activities in Wisconsin," by Ancil D. Holloway, article, *Wisconsin Conservation Bulletin*, vol. 23, no. 3, March 1958, pp. 24-25, printed. Wisconsin Conservation Department, Madison 1, Wis. Describes the functions and activities of the Fish and Wildlife Service in Wisconsin. In addition to operating three hatcheries in Wisconsin, the Service is concerned with both sport and commercial fishing.



DO NOISES SCARE FISH AWAY?

The opinions of the experts vary on whether or not noises scare fish away. It appears that although fish in the immediate vicinity of the noises may be frightened and leave the area, those a short distance away are not affected. Surface-living fish are probably more apt to be frightened away than bottom-dwellers, but it is unlikely that they stay away permanently. In fact, fish have been observed returning to an area soon after explosions have been set off there. ("Sea Secrets," September 1957, The International Oceanographic Foundation, Coral Gables, Fla.)

Editorial Assistant--Ruth V. Keefe

Illustrator--Gustaf T. Sundstrom

Compositors--Jean Zalevsky, Alma Greene, Helen Joswick, and Vera Eggleston

* * * * *

Photograph Credits: Page by page, the following list gives the source or photographer for each photograph in this issue. Photographs on pages not mentioned were obtained from the Service's file and the photographers are unknown.

Cover--Fred Hipkins; pp. 7, 8, 11, 12--Virginia Fisheries Laboratory, Gloucester Point, Va.; p. 10--E. P. Churchill, Virginia Fisheries Laboratory, Gloucester Point, Va.; p. 32--G. T. Sundstrom; p. 37--B. Munns; p. 52--J. Pileggi; p. 58--Wendy Veevers-Carter, wife of the Eastern Aden Protectorate Fisheries Officer, Mukalla, Aden.