



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.
 FL - FISHERY LEAFLETS.
 SL - STATISTICAL SECTION LISTS OF DEALERS IN AND PRODUCERS OF FISHERY PRODUCTS AND BYPRODUCTS.
 SSR - FISH - SPECIAL SCIENTIFIC REPORTS--FISHERIES (LIMITED DISTRIBUTION).
 SEP. - SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.

- | <u>Number</u> | <u>Title</u> |
|---------------|---|
| CFS-1282 | - Massachusetts Landings, December 1955, 5 pp. |
| CFS-1286 | - Canned Fish & Byproducts, 1955 Annual Summary, 22 pp. |
| CFS-1287 | - Packaged Fish, 1955 Annual Summary, 3 pp. |
| CFS-1290 | - Rhode Island Landings, January 1956, 3 pp. |
| CFS-1292 | - Fish Meal and Oil, February 1956, 2 pp. |
| CFS-1295 | - Georgia Landings, January 1956, 2 pp. |
| CFS-1296 | - California Landings, November 1955, 4 pp. |
| CFS-1297 | - New Jersey Landings, 1955 Annual Summary, 4 pp. |
| CFS-1300 | - Alabama Landings, January 1956, 2 pp. |
| CFS-1305 | - Georgia Landings, February 1956, 2 pp. |
| CFS-1311 | - Shrimp Landings, February 1956, 4 pp. |
| FL - 434 | - Facts About Red Tide, 2 pp., illus., processed, March 1956. Red Tide is the popular name for the colored-water and mass fish kills that have occurred off the Gulf coasts of Florida, Texas, and Mexico, as a result of overgrowth of a microscopic marine organism known as <u>Gymnodinium brevis</u> . This leaflet describes Red Tide and answers questions regarding this phenomenon. |

Wholesale Dealers in Fishery Products (Revised):

- SL - 4 - Rhode Island, 1956, 2 pp.
 SL - 36 - Iowa, 1955 (Mississippi River and Tributaries Area), 2 pp.

SSR-Fish. No. 165 - Food Habits of Georges Bank Haddock, by Roland L. Wigley, 29 pp., illus., processed, January 1956. This report presents the results of the first year's study of haddock food habits. The author states, that "The haddock's diet consisted principally of sedentary

or slow moving invertebrate animals; benthic and epi-benthic forms predominated. Small organisms were especially common in the food, presumably because the haddock's rather small mouth precludes taking large items. The percentage volume of each major food group in the diet was as follows: Crustacea - 33.1 percent; Mollusca - 17.5 percent; Echinodermata - 14.6 percent; Annelida - 9.9 percent; and Pisces - 1.9 percent. Canadian biologists have reported that haddock on the offshore Nova Scotian banks fed predominately on fish. On Georges Bank crustaceans were found to be the primary food; fish constituted less than 2 percent of the food volume. Other notable differences were disclosed in the dietary composition of specimens collected from various parts of Georges Bank itself."

Sep. No. 436 - Insurance of Fishing Vessels: Some Current Problems.

Sep. No. 437 - Research in Service Laboratories (May 1956): Contains these short articles-- "Jacketed-Principle Cold-Storage Room;" "Use of Fish Oils for Ore Flotation;" "Frozen Breaded Shrimp Federal Specification;" "Cod-Liver Oil Concentrate Has Unique Use."

Annual Report of the Director Fish and Wildlife Service to the Secretary of the Interior, Fiscal Year Ended June 30, 1955 (Reprinted from the Annual Report of the Secretary of the Interior), 33 pp., printed. Summarizes the various activities of the Service. Specifically discussed are: utilization of the commercial fishery resources (describes the activities of the Branch of Commercial Fisheries); management of the Alaska commercial fisheries; Pribilof Islands fur-seal industry; maintenance of inland waters; research in fishery biology (coastal, inland, marine, and shellfish fisheries); Federal aid to states for the restoration of fish and wildlife; river basin development and wildlife needs; international cooperation in conservation (international technical cooperation and international conservation agreements); and other activities.

One of the problems which came in for attention during the period of the report and which will have more attention in the future covered efforts to control the sea lampreys which are ruining commercial fishing in the Great Lakes.

Biological research covered a wide field of activities in many parts of the world. Recently-developed methods of predicting shad runs in the Hudson and Connecticut Rivers proved successful; limited studies by the Service and coordination of striped bass research conducted by the States under the Federal aid program

continued; encouraging results were obtained from experimental fertilization of Bare Lake on Kodiak Island to increase red salmon production; electrical devices to guide salmon over dams were further developed; numerous shellfish problems were given attention; a fleet of five vessels covered thousands of square miles of Pacific waters in a study of distribution, abundance and identity of salmon stocks; bacterial diseases of fishes, problems relative to Atlantic herring, yellowtail flounder, whiting, sea scallops and gulf shrimp and a number of other matters relative to the culture and habit of fish came in for field and laboratory scrutiny.

Exploratory fishing operations were continued in the Atlantic and Pacific Oceans and in the Gulf of Mexico. Discoveries of long-range importance to the tuna fishery were made in the central Pacific and in the Gulf of Mexico. New fishing areas for ocean perch, shrimp, and albacore were found.

Funds available from the Saltonstall-Kennedy Act permitted added emphasis to fishery research and the development of new marketing outlets for fishery products.

Special marketing campaigns were conducted to move surplus stocks of small haddock filets and canned tuna. There was considerable interest on the part of the fishing industry in voluntary Federal standards for grade and conditions of fishery products. Certain standards had been developed during the previous year and others are being developed.

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

(Seattle) Monthly Summary - Fishery Products, March 1956, 4 pp. (Market News Service, U. S. Fish and Wildlife Service, 421 Bell St. Terminal, Seattle 1, Wash.) Includes landings and local receipts as reported by Seattle and Astoria (Oregon) wholesale dealers.

(Chicago) February 1956 Monthly Summary of Chicago's Fresh and Frozen Fishery Products Receipts and Wholesale Prices, 10 pp. (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 month indicated.

(New York) Monthly Summary - January 1956 - Receipts of Fishery Products at the New York City Wholesale Salt-Water Fish Market, 4 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 month indicated.

Monthly Summary of Fishery Products Production in Selected Areas of Virginia, North Carolina, and Maryland, March 1956, 4 pp. (Market News Service, U. S. Fish and Wildlife Service, 18 S. King St., Hampton, Va.)

Receipts of Fresh and Frozen Fishery Products at Chicago - 1954, by G. A. Albano, 35 pp., processed, February 1956. (Available free from the Market News Service, U. S. Fish and Wild-

life Service, 565 West Washington St., Chicago 6, Ill.) This report presents an analysis of the marketing trends for fresh and frozen fishery products and statistical tables on the receipts of fresh and frozen fish and shellfish at Chicago during 1954. Statistics on arrivals of fishery products at Chicago are presented by species and by states and provinces of origin; states and provinces by species; species by months; states and provinces by months; totals by species; and totals by states and provinces. Receipts are tabulated by methods of transportation (truck, express, and freight). A table shows the monthly range of wholesale prices of some of the leading varieties of fresh and frozen fishery products handled on the Chicago market. In the analysis of the marketing trends for fresh and frozen fishery products at Chicago, the author discusses the sources of the receipts, methods of transportation, months of greatest receipts, receipts by species and varieties, lake trout and whitefish receipts, U. S. Great Lakes fishery production, U. S. imports of fresh and frozen fish from Canada, U. S. imports of frozen fillets, and cold-storage inventories. Also included is a table giving the names, classifications, and approximate weights of certain fishery products sold in the Chicago wholesale market.

Receipts of Fishery Products at New York City, 1954, by Henry M. Bearse, 19 pp., processed. (Available free from the Market News Service, U. S. Fish and Wildlife Service, 155 John Street, New York 38, N. Y.) Contains an analysis of fishery products receipts for 1954 and marketing trends at New York City. The author discusses in the first part of this report the salt-water market receipts; marketing trends; receipts by shipping areas; receipts by species; trends in method of transportation; fresh-water market receipts; and imports of fishery products through the New York customs district. The tables, in the second part of this report, present data on receipts of fish and shellfish in the salt-water section of Fulton Market by months and method of transportation, by species and method of transportation, and by states and provinces of origin.

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.

"Asdic in the Fishing Industry," by C. M. Good, article, World Fishing, vol. 5, no. 3, March 1956, pp. 26-28, illus., printed. John Trundell Ltd., Temple Chambers, Temple Ave., London, E. C. 4, England. The use of horizontal echo-searching equipment on a commercial basis is still very much in its infancy, and much experimental work remains to be done before there can be any general application. This article discusses some of the problems of adopting Asdic equipment to commercial fishing, gives details of the most desirable beam shape

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

required for fish finding, and deals with the snags met with through the effects of rolling.

"The Atlantic Salmon's Comeback," by Anthony Netboy, article, Nature Magazine, vol. 49, no. 1, January 1956, pp. 37-40, illus., printed, single copy 50 cents. American Nature Association, 1214 - 16th St., N.W., Washington 6, D. C. Includes a brief history of the Atlantic salmon, Salmo salar, a description of their habits, and a discussion of the salmon restoration programs being conducted in the United States and Canada.

(California) The Marine Fish Catch of California for the Years 1953 and 1954 (with Jack Mackerel and Sardine Yield Per Area from California Waters 1946-47 Through 1954-55), Fish Bulletin No. 102, 99 pp., illus., printed. Marine Fisheries Branch, Department of Fish and Game, Sacramento 14, Calif., 1956. This bulletin includes records of the pounds of fish landed in the different areas of the State of California and their value to the fishermen. It is prepared to meet the numerous requests for such data received throughout the year from members of the fishing industry, harbor commissions, scientists, and persons in other related fields for use in their studies and reports. Although this bulletin carries the title "Marine Fish Catch," small poundages of fresh-water commercial landings are also included.

The Charles F. Johnson Billfish Investigation, Summary of Investigations for the Period Comprising January 1954 through August 1955, by Luis Rene Rivas, Progress Report No. 1, 8 pp., processed. The Marine Laboratory, University of Miami, Coral Gables, Fla., September 1955.

Convention for the Regulation of the Meshes of Fishing Nets and the Size Limits of Fish--London, April 5, 1946 (Presented by the Secretary of State for Foreign Affairs to Parliament by Command of Her Majesty, March 1956), Cmd. 9704, Treaty Series No. 8 (1956), 16 pp., printed in French and English, 9d. (10 U. S. cents). Her Majesty's Stationery Office, London, England.

"The Conversion of Herring Stickwater to Solubles. III. Preservative Action of Penicillin G on Salmon Offal Stickwater under Plant Conditions," by W. A. B. Thomson, R. E. E. Jonas, R. A. MacLeod, and D. R. Idler, article, Progress Reports of the Pacific Coast Stations, no. 105, February 1956, pp. 27-30, illus., printed. Fisheries Research Board of Canada, Technological Station, 898 Richards St., Vancouver 2, B.C., Canada.

(Department of Scientific and Industrial Research) Report for the Year 1954-55 (Presented by the Lord President of the Council to Parliament by Command of Her Majesty, March 1956), Cmd. 9690, 321 pp., printed, 7s. 6d. (US\$1.05), Her Majesty's Stationery Office, London, England. Contains reports, among others, on developments and research work on fish and fishery products, and water pollution research.

"Down to the Sea--for Fish," by Irwin M. Alperin, article, The New York State Conservationist, vol. 10, no. 4, February-March 1956, pp. 22-27, illus., printed. New York State Conservation Dept., Arcade Bldg., Albany, N. Y. A survey of New York's marine sport fishery tells where the bulk of the fishing took place, how it varied seasonally, and what facilities were available for the sportsmen. It was found that more than 30 species of finfish are taken by anglers along the 600-mile coastline of New York's Marine District. However, only about a half dozen of these make up the real volume of the catch. The most important species include porgy, fluke or summer flounder, sea bass, bluefish, flounder, and blackfish. Other species are taken in numbers and occasionally contribute a considerable part of the catch in selected areas. More than 415,000 boat trips were taken from April through October 1954 to catch some species of fish somewhere in the Marine District. Another 71,000 fishing-days were spent by bank, beach, pier, and jetty fishermen during this same period. In all, about 1,700,000 angler-days were spent in pursuit of marine species by the sport fishermen. It was estimated that the catch of open and charter boats during the 1954 season was over 5,300,000 fish of all species.

East African Fisheries Research Organization Annual Report, 1954/1955, 46 pp., printed. East African Fisheries Research Organization, Jinja, Uganda, 1955.

"Ecological Observations on a Locally Limited Red Tide Bloom," by Ilmo Hela, article, Bulletin of Marine Science of the Gulf and Caribbean, vol. 5, no. 4, 1955, pp. 269-291, illus., printed. Marine Laboratory, University of Miami, Coral Gables (University Branch) 46, Fla.

"Effect of Chlortetracycline and Storage Temperatures on the Quality of Shucked Oysters," by J. W. Boyd and H. L. A. Tarr, article, Progress Reports of the Pacific Coast Stations, no. 105, February 1956, pp. 12-13, printed. Fisheries Research Board of Canada, Technological Station, 898 Richards St., Vancouver 2, B.C. Canada.

"Farm Fish Pond Troubles," by Olan Dillon, article, Louisiana Conservationist, vol. 8, no. 6, March 1956, pp. 8-9, illus., printed. Louisiana Wild Life and Fisheries Commission, 126 Civil Courts Bldg., New Orleans, La.

The Fecundity of TILAPIA Species, by Rosemary H. Lowe (McConnell), 8 pp., illus., printed. (Reprinted from East African Agricultural Journal, vol. XXI, no. 1, July 1955, pp. 45-52) East African Fisheries Research Organization, Jinja, Uganda.

Federal Aid in Fish and Wildlife Restoration (Annual Reports of the Dingell-Johnson and Pittman-Robertson Programs for the Fiscal Year Ending June 30, 1955), 102 pp., illus., printed. Wildlife Management Institute, Wire Bldg., Wash-

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

ington 5, D. C., and Sport Fishing Institute, Bond Bldg., Washington 5, D.C. Included, among others, are reports on accomplishments of the fish restoration program; a list of Federal aid in fish restoration projects approved during the 1955 fiscal year and the funds obligated; apportionment of funds to the states and territories for use in fish restoration projects for the fiscal year 1955, pursuant to the Dingell-Johnson Act; and a summary of Federal aid in fish restoration apportionments, obligations, reversions, and balances for the fiscal year 1955. The distinct trend in the Dingell-Johnson program toward more developmental work designed to expand the Nation's basic sport fishery resource is noteworthy. In the early years of the fish restoration program, greatest emphasis was placed on fact-finding activities. This year, for the first time, the amount of funds obligated by the states for physical improvements exceeded that scheduled for research. Because of the over-all increase in the funds available, the increase in on-the-ground or in-the-water restoration measures has been made without jeopardizing the continued growth of the investigational program.

Feeding Mechanism of the Cichlid Fish, TILAPIA ESCULENTA Graham, by P. H. Greenwood, 3 pp., illus., printed. (Reprinted from Nature, vol. 172, p. 207, August 1, 1953) East African Fisheries Research Organization, Jinja, Uganda.

Fishery Research in East Africa, by R. S. A. Beauchamp, 8 pp., printed. (Reprinted from The Uganda Journal, vol. 19, no. 2, September 1955, pp. 169-176) East African Fisheries Research Organization, Jinja, Uganda.

Fishery Research in the Lakes of East Africa, by R. S. A. Beauchamp, 5 pp., printed. (Reprinted from East African Agricultural Journal, vol. XIX, no. 4, April 1954, pp. 203-207) East African Fisheries Research Organization, Jinja, Uganda.

Fishery Research Trawler (First British Trawler with Diesel-Electrical Propulsion), 3 pp., illus., printed. (Reprinted from The Shipping World, pp. 67-69, July 20, 1955; also reprinted from Engineering, pp. 220-221, August 12, 1955) Department of Scientific and Industrial Research, Aberdeen, Scotland. Describes the research trawler, Sir William Hardy, which is specially equipped for investigations into the preservation of fish as food. In addition to the normal facilities for trawling, the equipment provided includes laboratories, an experimental freezing plant, an insulated hold for iced fish, and a liver-oil plant.

The Fishes of Uganda-I, by P. H. Greenwood, 19 pp., illus., printed. (Reprinted from The Uganda Journal, vol. 19, no. 2, Sept. 1955, pp. 137-155) East African Fisheries Research Organization, Jinja, Uganda.

(FAO) The Sea and World Food Supplies, by D. B. Finn, FAO Fisheries Papers No. 8, 23 pp.,

processed. (Reprinted from Nutrition Abstracts and Reviews, vol. 24, pp. 487-496, 1954.) Food and Agriculture Organization of the United Nations, Rome, Italy, February 1956. Discusses the state of world food supplies, supplies of food from fisheries, per-capita consumption of fishery products, and the prospect for increase in aquatic food.

The Food of TILAPIA in East Africa, by G. R. Fish, 7 pp., illus., printed. (Reprinted from The Uganda Journal, vol. 19, no. 1, March 1955, pp. 85-89) East African Fisheries Research Organization, Jinja, Uganda.

"Golden Harvest of the Sea," by Frank A. Montgomery, Jr., article, The Crown, vol. 45, no. 4, April 1956, pp. 14-15, 22-23, illus., printed. Crown Cork & Seal Co., Inc., P. O. Box 1837, Baltimore 3, Md. A good description of the shrimp fishery along the South Atlantic and Gulf coasts, including method of capture, preparation for market, and various types of research being conducted to improve the fishery. A brief description of the life history of the shrimp is also presented.

Handbook of Tropical Aquarium Fishes, by Herbert R. Axelrod and Leonard P. Schultz, 719 pp., illus., printed, \$10. McGraw-Hill Publishing Co., New York, N. Y., 1955.

How to Produce Best Quality Whitefish, 10 pp., illus., processed. Department of Fisheries, Ottawa, Canada, March 1955. This leaflet illustrates photographically good and bad handling and packing practices.

(ICA) Operations Report, February 24, 1956, FY 1956, Issue No. 1, 57 pp., illus., processed. Office of Statistics and Reports, International Cooperation Adm., Washington 25, D. C.

Journal of the Faculty of Fisheries and Animal Husbandry, Hiroshima University, vol. 1, no. 1, 204 pp., illus., printed. Faculty of Fisheries and Animal Husbandry, Hiroshima University, Fukuyama, Japan, August 1955. This publication is the first number of the Journal of the Faculty of Fisheries and Animal Husbandry, Hiroshima University, published by the Faculty. The Journal should be issued annually, and is devoted to the study of the sciences of fisheries and animal husbandry.

"Lake Ontario Lake Trout," by Donald G. Pasko, article, The New York State Conservationist, vol. 10, no. 4, February-March 1956, pp. 16-17, illus., printed. New York State Conservation Dept., Arcade Bldg., Albany, N. Y. The decline of the Lake Ontario lake trout was from the start a problem of an international nature. Annual conferences on Lake Ontario fisheries problems had been held between representatives of New York and Ontario for some years, and in 1953 an international lake trout program was begun. Experimental plantings of young lake trout obtained from fish hatcheries were begun in the fall of 1953, and considering the small numbers of trout planted in relation to

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

the great size of the lake and the great odds against any of them being accidentally entangled in nets, the number of recoveries is very encouraging and indicates good survival. The growth rate of the trout has also been very good. According to the author, it will take considerably more time and study to get all the information desired on the results of the experimental plantings. However, the friendly spirit of cooperation between the conservation agencies of New York and Ontario and the results achieved to date are hopeful signs that progress is being made towards returning the lake trout to the important position it once held in Lake Ontario.

Life in Fresh Water, by E. S. Brown, 64 pp., illus., printed, \$2.75. Oxford University Press, 114 5th Avenue, New York 11, N. Y. More numerous than the familiar fish, frogs, and tadpoles are the more lowly creatures, such insects as the water-boatman and water beetles, water fleas and tiny mollusks.

The Manufacturing Potential of the North Carolina Commercial Fisheries, by William A. Ellison, 54 pp., processed. N. C. Department of Conservation and Development, Raleigh, N. C., February 15, 1956. A report on the possibilities of developing the processing, packaging, and marketing of fish and shellfish produced in North Carolina. Primary attention in this study was given to source, distribution and amount of raw material; existing methods of manufacture; suitability of fish houses for expansion; equipment in fish houses; retail trade practices governing both packaged fish and shellfish and round fresh fish; methods of processing in other states; suitability of native raw material for manufacture; abundance and potential abundance of raw material; manufacturing and equipment costs. The author states, that "(1) the North Carolina commercial fisheries offer excellent inherent possibilities for processing, although the possible magnitude of such is relatively small when compared with Maryland, Virginia, some of the Gulf States, and New England. Manufacture, however, even on a somewhat limited scale would substantially raise the income in several of the seaboard counties and would have a most pronounced effect on a few; (2) Expansion of processing will depend largely on the so-called deluxe animals to be found among the crustacea and mollusks. Finfish offer some, but only limited and occasional possibilities; and extensive manufacture of fish would have to be done in conjunction with other commodities which would carry plant burden and afford a steady labor supply; (3) Processing of shrimp in frozen breaded, peeled and shelled, and split-shell consumer packages offer an immediate and promising opportunity; (4) The expansion of crab meat manufacture is favored by natural abundance and quality, but any extension of this industrial unit will heavily rest on the development of a greater market by the producer; (5) Inherently the oyster offers an excellent opportunity. Until the supply is stabilized at a level higher than it is today, there appears no possibility that this unit of the fisheries will flourish beyond its present somewhat sickly stage; (6)

The quality of North Carolina seafood is excellent, unsurpassed by that of any state; and its freshness, particularly in regard to shrimp, offers any processor a merchandizing lever of great strength; and (7) The ultimate position of North Carolina in the seafood industry of the nation will largely depend upon the development of a merchandising system on the part of the industry."

The Marine Laboratory Prospectus, no. 55-32, 37 pp., illus., processed. The Marine Laboratory, University of Miami, Coral Gables, Fla., December 1955.

"Marine Mammals," by E. Laurence Palmer, article, Nature Magazine, vol. 49, no. 1, January 1956, pp. 25-32, illus., printed, single copy 50 cents. American Nature Association, 1214 - 16th St., N. W., Washington 6, D. C. Presents a list of the marine mammals, with the common name, scientific name, description, range and relationship, reproduction, ecology, and economic aspects of these animals of the sea.

"Marine Science in the Pacific Area," by G. E. R. Deacon, article, Nature, vol. 177, no. 4504, February 25, 1956, pp. 353-355, printed. MacMillan & Co., Ltd., St. Martin's St., London, W. C. 2, England (also St. Martin's Press, Inc., 103 Park Ave., New York 17, N. Y.) Because of the growing needs of marine research the United Nations Educational, Scientific and Cultural Organization nominated an Interim Advisory Committee. The Committee held its first meeting in Tokyo during October 1955 and started with a general discussion of trends and progress in marine research. The author outlines some of the main features of this meeting and discusses in particular marine science in Japan. He states, that "The fisheries research (in Japan) is aimed primarily at finding and improving the exploitation of fishing grounds and attempting to foresee fluctuations in distribution and numbers of mackerel, sardine, squid, herring, salmon, skipjack, tunas, and whales. The work includes extensive ecological surveys of spawning and nursery grounds, and detailed studies to improve the understanding of variations in the principal currents, particularly the Kuroshio and Oyashio. It includes research cruises to the Bering Sea and more than half-way across the Pacific Ocean. As in other countries, there is no obvious or logical division between the basic and applied research; but there seems to be a tendency for the initiative in the basic work to be with the universities, though they do not lack active collaboration from the government and regional laboratories devoted to hydrographic, meteorological and fisheries research."

The Master Diver and Underwater Sportsman, by T. A. Hampton, 208 pp., illus., printed, \$5. John de Graff, Inc., 64 W. 23rd St., New York 10, N. Y. A diving manual giving instruction in diving, protective clothing, underwater cutting and welding, blasting and seamanship.

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

Movements of Salmon and Sea Trout, Chiefly Kelts, and of Brown Trout Tagged in the Tweed between January and May 1937 and 1938, by G. Herbert Nall, Freshwater and Salmon Fisheries Research Series no. 10, 19 pp., printed. H. M. Stationery Office, Edinburgh, Scotland, 1955.

Navigation Dictionary, H. O. Pub. No. 220, 256 pp., printed, \$2. U. S. Navy Hydrographic Office, Washington, D. C., 1956. (For sale by authorized Sales Agents of the U. S. Navy Hydrographic Office; also by the Superintendent of Documents, Government Printing Office, Washington 25, D. C.) The need for a comprehensive, authoritative dictionary of navigational terms has been widely recognized. The purpose of this volume is to supply that need by furnishing the navigator of any type craft with definitions that represent present usage.

Operation of the Trade Agreements Program, Eighth Report, July 1954-June 1955, 321 pp., processed. United States Tariff Commission, Washington 25, D. C., 1956.

This report discusses changes made in United States trade agreements legislation by the Trade Agreements Extension Act of 1955. It covers important developments, in the last half of 1954 and the first half of 1955, respecting the General Agreement on Tariffs and Trade, including the review of the General Agreement conducted by the contracting parties at their Ninth Session; and it discusses the proposed Organization for Trade Cooperation. It analyzes the United States trade-agreement negotiations that were conducted with Japan and other countries during this period. Like the earlier reports in the series, the eighth report also discusses such matters as the actions of the United States relating to its trade agreements program; changes in tariffs, exchange controls, and quantitative restrictions on imports by contracting parties to the General Agreement; and changes in tariffs, exchange controls, and quantitative restrictions on imports by countries with which the United States has bilateral trade agreements.

Peces de Importancia Comercial en la Costa Nor-Occidental de Mexico (Fishes of Commercial Importance on the Northwest Coast of Mexico), by Julio Berdegue A., 350 pp., illus., printed, in Mexican. Secretaria de Marina, Direccion General de Pesca, Comision para el Fomento de la Piscicultura Rural, Mexico D. F., 1956.

La Pesca en el Lago de Patzcuaro, Michoacan, y su Importancia Economica Regional (The Fish in Lake Patzcuaro, Michoacan, and Their Regional Economic Importance), by Aurelio Solorzano Preciado, 59 pp., illus., printed, in Mexican. Secretaria de Marina, Direccion General de Pesca, Comision para el Fomento de la Piscicultura Rural, Mexico D. F., 1955.

(Rapports et Proces-Verbaux des Reunions) Report on Echo-Sounding and Asdic for Fishing Purposes, vol. CXXXIX, edited by W. C.

Hodgson and A. Fridriksson, 51 pp., illus., printed, Kr. 12 (US\$1.74). Conseil Permanent International Pour L'Exploration de la Mer (International Council for Exploration of the Sea), Charlottenlund Slot, Denmark, September 1955. Presents the results of a survey begun in 1950 to collect as much information as possible concerning the problems of echo-sounding as an aid to commercial fishing. This survey showed that asdics are only used in whaling and have as yet no place in other commercial fisheries although horizontal echo-sounding has recently been introduced to the Norwegian herring industry. This report contains a history of echo-sounding development; principles of echo-sounding; identification of echo-traces; applications of echo-soundings; state of echo-sounding in various countries; and suggestions to manufacturers. Appendixes include two articles: "A Proposal for the Introduction of Organized Echo-Search in North Sea Herring Investigations," by B. B. Parrish; and "The Use of Echo-Sounder in Fish-Location--A Survey of Present Knowledge, with Notes on the Use of Asdic," by R. E. Craig.

"Red Tide and the Fluctuation of Conservative Concentrations at an Estuary Mouth," by Frank Chew, article, Bulletin of Marine Science of the Gulf and Caribbean, vol. 5, no. 4, 1955, pp. 321-330, illus., printed. Marine Laboratory, University of Miami, Coral Gables (University Branch) 46, Fla.

Salmon and Steelhead Fishing Map, 2 pp., folder, illus., printed. Department of Fish and Game, 926 Jay St., Sacramento 14, Calif. A description of the California salmon and steelhead fishery and what is necessary to maintain it. Includes description of the species of salmon and trout found in California waters, brief comments on the main California river systems, and conservation problems.

Seventh Annual Report of the Supervisory Committee for Brown Trout Research, 1954-1955, Scottish Home Department Freshwater and Salmon Fisheries Research 12, 15 pp., printed, 2s. 6d. (35 U. S. cents). Her Majesty's Stationery Office, Edinburgh, Scotland, 1956. This report covers the period November 1954 to October 1955. The section on research covers fish investigations, bottom fauna studies, botanical work, and chemical work.

"The Sodium and Potassium Content of British Columbia Sea Foods. II. Some Commercially Important Fresh Fish," by J. McBride and R. A. MacLeod, article, Progress Reports of the Pacific Coast Stations, no. 105, February 1956, pp. 19-21, printed. Fisheries Research Board of Canada, Technological Station, 898 Richards St., Vancouver 2, B. C., Canada.

"Some Red Tide Characteristics during 1952-54," by Howard T. Odum, J. B. Lackey, Jacqueline Hynes, and Nelson Marshall, article, Bulletin of Marine Science of the Gulf and Caribbean, vol. 5, no. 4, 1955, pp. 247-258, printed. Marine Laboratory, University of Miami, Coral Gables (University Branch) 46, Fla.

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

Species of TILAPIA in East African Dams, with a Key for Their Identification, by Rosemary H. Lowe (McConnell), 7 pp., illus., printed. (Reprinted from East African Agricultural Journal, vol. XX, no. 4, April 1955, pp. 256-262) East African Fisheries Research Organization, Jinja, Uganda.

Svenskt Fiskeleksikon, editor in chief Dr. Nils Rosen, 704 pp., illus., in color and black and white, printed in Swedish. AB Nordiska Uppslagsböcker, Stockholm, Sweden, 1955. A beautifully illustrated encyclopedia of Sweden's fisheries in one volume. Both the commercial fisheries and the sport fisheries are covered in considerable detail. Practically every page has an illustration or two in the form of a line cut, photograph, map, or graph. In addition, there are 24 full-page color plates of 62 species of fish and shellfish and of sports-fishing gear. Other full-page illustrations depict vessel types, fishing gear, and fishing methods. About 70 of Sweden's experts in every phase of its fisheries contributed articles to the encyclopedia on literally thousands of fishery subjects. An examination of the volume leads to only two regrets--first, that it is not available in English, and second, that there is no similar work covering the fisheries of the United States.

--A. W. Anderson

Technical Report of Fishing Boat, No. 7, 92 pp., illus., printed in Japanese, with brief English abstracts. Fishing Boat Laboratory, Production Division, Fisheries Agency, Ministry of Agriculture and Forestry, Kasumigaseki, Chiyodaku, Tokyo, Japan, January 1956. Contains, among others, the following report: "Structural Strength Investigations on Aluminum Fishing Boat," by Shozo Wada.

The Tohoku Journal of Agricultural Research, vol. VI, no. 1, 91 pp., illus., printed, September 1955. Faculty of Agriculture, Tohoku University, Sendai, Japan. Contains, among others, the following articles: "Studies on the Blue Green Pigments of the Integuments of Fishes. (1) The Isolation of Ichthyoverdin from the Scales of Sauries, Cololabis saira Brevoort," by Yasuhiko Tsuchiya and Tadasi Nomura; and "Biochemical Studies of the Ascidian, Cynthia roretzi v. Drasche. I. On the Nitrogenous Extracts," by Yoshio Suzuki.

The Torry Research Station and the Humber Laboratory, 17 pp., illus., printed. The Food Investigation Organization, Department of Scientific and Industrial Research, 20A Regent St., Cambridge, England. The Torry Research Station at Aberdeen and the Humber Laboratory at Hull deal with the preservation of fish and its byproducts. This pamphlet gives a brief explanation of their work.

The True Book of Animals of the Sea and Shore, by Illa Podendorf, 47 pp., illus., printed, \$2. Childrens Press, Inc., Jackson Blvd. & Racine Ave., Chicago 7, Ill. A book for children.

The True Book of Tropical Fishes, by Ray Broekel, 47 pp., illus., printed, \$2. Childrens Press, Inc., Jackson Blvd. & Racine Ave., Chicago 7, Ill. To teach children about fish pets and how to care for them.

(United Kingdom) Sea Fisheries Statistical Tables, 1954, 38 pp. (mostly tables), printed, 2s. 6d. (35 U. S. cents). Ministry of Agriculture, Fisheries, and Food, London, England, 1955. (Available from Her Majesty's Stationery Office, London). Includes statistics on the quantity, total value, and average value of fish and shellfish production in England and Wales by species, region, and other categories for 1954. Breakdowns by first-class British vessels (steam trawlers), demersal landings, and pelagic landings are presented. Data on imports and exports are included. Also given are the number of fishermen, number and gross tonnage of vessels, and number of first-class vessels by stations and type of gear.

Der Walfang der Gegenwart (Present Day Whaling), by Dr. Kurt Schubert, 214 pp., illus., printed, DM 60. From Handbuch der Seefischerei Norddeuropas (Handbook of the Sea Fisheries of Northern Europe), Bd. XI, H. 6 (vol. XI, no. 6). E. Schweizerbart'sche Verlagsbuchhandlung, Stuttgart, W. Germany, 1955. A treatise dealing with the many aspects of the whaling industry. It covers the life history of the whale, gear and equipment used in the catching of whales, and the processing of the products obtained from the whale.

(White Fish Authority) Grants and Loans for Encouraging the Formation and Development of Voluntary Arrangements on a Co-Operative Basis in the White Fish Industry, Sea Fish Industry Act 1951, Northern Ireland (Sea Fish Industry) Order 1951, C. 1, 2 pp., processed. White Fish Authority, Tilbury House, Petty France, London, S.W. 1, England.

(White Fish Authority) Loans for Acquiring Nets and Gear, Sea Fish Industry Act 1951, Form NG 1 (Revised), 2 pp., processed, January 9, 1956. White Fish Authority, Tilbury House, Petty France, London, S.W. 1, England.

(White Fish Authority) Loans for Providing, Acquiring, Reconditioning or Improving Plants for Processing White Fish, Sea Fish Industry Act 1951, Northern Ireland (Sea Fish Industry) Order 1951, P. R. I. (Revised), 2 pp., processed. White Fish Authority, Tilbury House, Petty France, London, S.W. 1, England.

