

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.
MNL - REPRINTS OF REPORTS ON FOREIGN FISHERIES.
SEP.- SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES

REVIEW.

SL - BRANCH OF STATISTICS LIST OF DEALERS IN AND PRODUCERS OF FISHERY PRODUCTS AND BYPRODUCTS.

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

Title CFS-2680 - Michigan Landings, July 1961, 3 pp. CFS-2681 - Wisconsin Landings, July 1961, 2 pp. CFS-2688 - Massachusetts Landings, June 1961, 5 pp. CFS-2695 - Shrimp Landings, May 1961, 6 pp. CFS-2697 - Frozen Fish Report, September 1961, 8 pp. CFS-2698 - Alabama Landings, May 1961, 3 pp. CFS-2699 - Georgia Landings, August 1961, 2 pp. CFS-2700 - South Carolina Landings, August 1961, 2 pp.

CFS-2701 - Fish Meal and Oil, August 1961, 2 pp. CFS-2702 - Texas Landings, June 1961, 3 pp. CFS-2703 - Florida Landings, August 1961, 8 pp. CFS-2704 - Maine Landings, August 1961, 4 pp. CFS-2705 - Michigan Landings, August 1961, 3 pp. CFS-2706 - New Jersey Landings, July 1961, 4 pp. CFS-2707 - New Jersey Landings, August 1961, 4 pp. CFS-2708 - Wisconsin Landings, August 1961, 2 pp. CFS-2709 - Shrimp Landings, June 1961, 6 pp.

CFS-2710 - Ohio Landings, August 1961, 2 pp. CFS-2711 - Maryland Landings, August 1961, 3 pp. CFS-2712 - Minnesota Landings, August 1961, 2 pp. CFS-2713 - Virginia Landings, August 1961, 4 pp. CFS-2714 - California Landings, June 1961, 4 pp.

CFS-2715 - Louisiana Landings, April 1961, 2 pp. CFS-2716 - Fish Sticks and Portions, July-September 1961, 3 pp.

CFS-2717 - Texas Landings, July 1961, 4 pp.

CFS-2718 - New York Landings, August 1961, 5 pp. CFS-2719 - Massachusetts Landings, July 1961, 5 pp. CFS-2720 - Louisiana Landings, May 1961, 2 pp.

CFS-2721 - Texas Landings, August 1961, 3 pp. CFS-2722 - Rhode Island Landings, August 1961, 4 pp. CFS-2725 - New Jersey Landings, September 1961,

4 pp.

CFS-2726 - North Carolina Landings, September 1961, 4 pp.

CFS-2727 - South Carolina Landings, September 1961,

Wholesale Dealer in Fishery Products, 1961 (Revised): SL-3 - Massachusetts, 9 pp.

Firms Canning, 1960 (Revised): SL-102 - Maine Sardines, 1 p. SL-102A - Pacific Sardines, 1 p.

SL-103 - Tuna, 2 pp. SL-103A - Tunalike Fishes, 1 p.

SL-104 - Mackerel, 1 p. SL-108 - Salmon Eggs for Bait, 1 p.

SL-110 - Oysters, 2 pp.

Firm Manufacturing, 1960 (Revised): SL-160 - Menhaden Products, 2 pp.

SSR-Fish. No. 378 - Drift Bottle Records for the Gulf of Maine, Georges Bank and Bay of Fundy, 1956-58, by Dean F. Bumpus, 129 pp., illus., May 1961.

SSR-Fish. No. 382 - A Modified Beckman Model DU Spectrophotometer for Seagoing Use, by Robert W. Holmes and Robert J. Linn, 8 pp., illus., July 1961.

Sep. No. 633 - Aerial Fish Spotting in the United States Commercial Fisheries.

Sep. No. 634 - Effects of Some Pesticides on Eggs and Larvae of Oysters (Crassostrea virginica) and Clams (Venus mercenaria).

Literature Citations in Publications of the Fish and Wildlife Service, by Faxon W. Cook, Circular 115, 18 pp., 1961.

THE FOLLOWING MARKET NEWS LEAFLETS ARE AVAILABLE FROM THE BRANCH OF MARKET NEWS, BUREAU OF COMMERCIAL FISHERIES, U.S. FISH AND WILDLIFE SERVICE, WASHINGTON 25, D. C.

Title MNL- 3 - Legislative Actions Affecting Commercial Fisheries, 87th Congress, 1st Session, 1961, 23 pp., processed. A report of congressional legislative actions directly or indirectly affecting or of interest to commercial fisheries and allied industries.

MNL-48 - Pakistan's Fisheries Statistical Report, 1960, 4 pp.

MNL-61 - Shrimp and Lobster Fisheries of Costa Rica (Survey Period: April 24 to May 6, 1961), 6 pp.

THE FOLLOWING PUBLICATIONS ARE AVAILABLE FROM THE SPECIFIC OFFICE MENTIONED.

(Baltimore) Monthly Summary--Fishery Products, September 1961, 8 pp. (Market News Service, U. S.

Fish and Wildlife Service, 103 S. Gay St., Baltimore 2, Md.) Receipts of fresh- and salt-water fish and shellfish at Baltimore by species and by states and provinces; total receipts by species and comparisons with previous periods; and wholesale prices for fresh fishery products on the Baltimore market; for the month indicated.

California Fishery Market News Monthly Summary,
Part I - Fishery Products Production and Market
Data, September 1961, 16 pp. (Market News Service,
U.S. Fish and Wildlife Service, P.O. Bldg., San Pedro, Calif.) California cannery receipts of tuna and tunalike fish and other species used for canning; pack of canned tuna, tunalike fish, sardines, mackerel, and anchovies; market fish receipts at San Pedro, Santa Monica, and Eureka areas; California and Arizona imports; canned fish and frozen shrimp prices; ex-vessel prices for cannery fish; Oregon and Washington receipts (domestic and imports) of fresh and frozen tuna and tunalike fish; for the month indicated.

Gulf of Mexico Monthly Landings, Production and Shipments of Fishery Products, September 1961, 8 pp. (Market News Service, U. S. Fish and Wildlife Service, Rm. 609, 600 South St., New Orleans 12, La.) Gulf States shrimp, oyster, finfish, and blue crab landings; crab meat production; LCL express shipments from New Orleans; wholesale prices of fish and shellfish on the New Orleans French Market; fishery imports at Person Residue onge sales; for the month indicated.

Monthly Summary of Fishery Products Production in Selected Areas of Virginia, North Carolina, and Maryland, October 1961, 4 pp. (Market News Service, U. S. Fish and Wildlife Service, 18 S. King St., Hampton, Va.) Landings of food fish and shellfish and production of crab meat and shucked oysters for the Virginia areas of Hampton Roads, Chincoteague, Lower Northern Neck, and Lower Eastern Shore; the Maryland areas of Crisfield, Cambridge, and Ocean City; and the North Carolina areas of Atlantic, Beaufort, and Morehead City; together with cumulative and comparative data on fishery products and shrimp production; for the month indicated.

New England Fisheries--Monthly Summary, September 1961, 22 pp. (Market News Service, U. S. Fish and Wildlife Service, 10 Commonwealth Pier, Boston 10, Mass.) Review of the principal New England fishery ports. Presents data on fishery 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 Boston Fish Pier and Atlantic Avenue fishery landings and ex-vessel prices by species; for the month indicated.

Receipts of Fresh and Frozen Fishery Products at

Baltimore's Wholesale Fish Market, 1960, by James
A. Coyne, 60 pp., processed, November 1961. (Available free from the U. S. Fish and Wildlife Service, Market News Service, 103 South Gay Street, Baltimore 2, Md.) The first part of this report is

a summary of receipts of fresh and frozen fishery products on the Baltimore Wholesale Fish Market in 1960, giving comparisons with receipts in 1959. Includes information on crab meat, hard crabs, oysters, striped bass, scup (porgy), hake, whiting, butterfish, shad, spot (lafayette), red hake (ling), fluke, and croaker. Also covers pasteurization of crab meat, Maryland's tidewater fishery laws, and the Maryland 1960 oyster season. The second part of the report covers statistics on receipts of fresh and frozen fishery products, such as species by states and countries; fish and shellfish totals by months, states and countries by species; domestic and imported totals by months; species by months; and states and countries by months. Also covers 1960 price ranges for fresh fish and shellfish, and conversion factors used to convert shellfish to pounds.

Receipts and Prices of Fresh and Frozen Fishery Products at Chicago, 1960, by G. A. Albano, 67 pp., processed, November 1961. (Available free from the Market News Service, U. S. Fish and Wildlife Service, 565 W. Washington St., Chicago 6, Ill.) In the analysis of receipts of fishery products at Chicago, the author discusses the drop in 1960 fishery products receipts and carload receipts at Chicago. He also discusses sources of receipts, trends in fishery products transportation, receipts by months, receipts by species and varieties, lake trout and whitefish fishery and receipts, trends in Great Lakes commercial fishery, cold-storage inventories, imports of fresh and frozen fresh-water fish from Canada, imports of and selected frozen fishery products. Also covers trends in frozen halibut marketing, fish sticks and portions, frozen shrimp market trends, shrimp landings and imports, standards for grades of frozen raw headless shrimp, and calico scallop grounds located off Florida Coast. Also included is a table giving the names, classifications, and approximate weights of certain fishery products as used in the Chicago wholesale markets. The second section presents statistical data on fresh and frozen fishery products receipts at Chicago 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 method 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 in the Chicago market.

THE FOLLOWING ENGLISH TRANSLATION OF A FOREIGN LANGUAGE ARTICLE IS AVAILABLE ONLY FROM THE U. S. BUREAU OF COMMERCIAL FISHERIES, 101 SEASIDE AVE., TERMINAL ISLAND, CALIF.:

The Study on the Color of the Fishing Net. II--Be-havior of Fish Schools in the Neighborhood of a Colored Net, by Kenji Kanda, Atushi Koike, and Mitio Ogura, 5 pp., processed, October 1961. (Translated from Japanese, Bulletin of the Japanese Society of Scientific Fisheries, vol. 23, no. 10, pp. 617-620, 1958.)

THE FOLLOWING ENGLISH TRANSLATION OF A FOREIGN LANGUAGE ARTICLE IS AVAILABLE ONLY FROM THE U.S. FISH AND WILDLIFE SERVICE, BUREAU OF COMMERCIAL FISHERIES, SEATTLE BIOLOGICAL LABORATORY, 2725 MONTLAKE BLVD., SEATTLE 2, WASH.

 $\underline{ A} \ \underline{ \ New \ Method \ of \ Catching \ Fish, \ by \ N. \ F. \ Chernigin, } } \ \underline{ \ A} \ \underline{ \ Pos., \ illus., \ processed. } \ \underline{ \ (Translated \ from \ Russian) }$

Rybnoe Khoziaistvo, vol. 32, no. 2, February 1956, pp. 22-29.)

THE FOLLOWING SERVICE PUBLICATION IS FOR SALE AND IS

AVAILABLE ONLY FROM THE SUPERINTENDENT OF DOCUMENTS, WASHINGTON
25, D. C.

Commercial Fishing Gear of the United States, by William H. Dumont and G. T. Sundstrom, Circular 109, 66 pp., illus., processed, 40 cents. A well illustrated publication showing the various types of fishing gear used in harvesting America's fivebillion-pound annual fish catch. Containing dozens of easy-to-follow drawings, the booklet should appeal especially to those interested in the development and utilization of fishing gear. The introduction explains that while fishing is an age-old occupation, fishing gear was developed slowly by trial and error. In the past 60 years mechanization and use of more efficient equipment have revolutionized the fishing industry. The change in fishing gear from the simple net to the present huge purse seines which cost as much as \$40,000 is emphasized. The booklet also points out that a million-dollar boatfor fish harvesting is not unusual now and that some large English and Soviet factoryships, designed as stern trawlers to fish, process, and freeze the product at sea, cost several million dollars each.

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 ORGANIZATIONS OR PUBLISHER MENTIONED. DATA ON PRICES, IF READILY AVAILABLE, ARE

ALGAE:

"Adriatic Algae as an Additional Forage," by O. Jurko, article, Nova Proizvodnja, vol. 11, no. 6, 1960, pp. 322-325, printed in Serbo-Croatian. Nova Proizvodnja, Ljubljaua, Yugoslavia.

The Ecology of Marine Plants of Crystal Bay, Florida, by Ronald C. Phillips, contribution no. 51, 10 pp., illus., printed. (Reprinted from The Quarterly Journal of the Florida Academy of Sciences, vol. 23, no. 4, pp. 328-337, December 1960.) Florida State Board Conservation Marine Laboratory, Bayboro Harbor, St. Petersburg, Fla.

ANCHOVETAS:

Tagging of Anchovetas (CETENGRAULIS MYSTICE-TUS) in the Gulf of Panama, by Edward F. Klima and William H. Bayliff, 6 pp., illus., printed. (Reprinted from <u>Proceedings of the Gulf and Caribbean Fisheries Institute</u>, Thirteenth Annual Session, pp. 151-156, Nov. 1960.) Gulf and Caribbean Fisheries Institute, 1 Rickenbacker Causeway, Virginia Key, Miami, Fla.

BARENTS SEA:

'Causes of Changes in the Fauna and the Biological Productivity of the Barents Sea over a Period of Many Years," by M. M. Kamshilov, article Trudy Okeanograficheskoi Komissii, vol. 10, no. 4, 1960, pp. 42-47, printed in Russian. Trudy Okeanograficheskoi Komissii, Akademii Nauk SSSR, Moscow, U. S. S. R.

BENELUX COUNTRIES:

Import Tariff System of Belgium, Netherlands, and Luxembourg, WTIS Part 2, Operations Report No. 61-71, 2 pp., printed, 10 cents. Bureau of International Programs, U. S. Department of Commerce, Washington, D. C., October 1961. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.)

BONEFISH:

A Contribution to the Life History, Biology and Geo-graphical Distribution of the Bonefish, ALBULA VULPES (Linnaeus), by Elizabeth C. Alexander, Dana-Report No. 53, 51 pp., illus., printed, Kr. 15 (about US\$2.20). Andr. Fr. Host & Son, Bredgade 35, Copenhagen K, Denmark, 1961.

BRAZIL:

Import Tariff System of Brazil, WTIS Part 2, Operations Report No. 61-57, 4 pp., printed, single copy 10 cents. Bureau of International Programs, U. S. Department of Commerce, Washington, D.C., September 1961. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) This report presents information on units of currency, weights, and measures; import regulations; bases of specific and ad valorem duties; customs duties and surtaxes; sales and other internal taxes; consular documents and fees; and related subjects.

"Introducao ao Conhecimento da Pesca Maritima no Nordeste Brasileiro" (Introductory Study of the Marine Fishery of Northeast Brazil), by M. P. Paiva, article, Revista Nacional de Pesca, vol. 1, no. 5, 1960, pp. 18-20, printed in Portuguese. Revista Nacional de Pesca, Sao Paulo, Brazil.

"Sinopse sobre a Pesca Interior no Brasil" (Synopsis of the Fresh-Water Fisheries of Brazil), by M. P. Paíva, article, Revista Nacional de Pesca, vol. 1, no. 6, 1960, pp. 41-42, printed in Portuguese. Revista Nacional de Pesca, Sao Paulo, Brazil.

CALIFORNIA:

California Cooperative Oceanic Fisheries Investigations, vol. 8, 130 pp., illus., printed. California Department of Fish and Game, 722 Capitol Ave., Sacramento, Calif., January 1, 1961. This report consists of two sections. The first contains abrief review of the administrative and research activities of the California Cooperative Oceanic Fisheries Investigations during the period July 1, 1959-June 30, 1960, a description of the fisheries, and list of publications arising from the program. The second section is comprised of original scientific contributions which are either the direct results of the research programs, or represent research directly pertinent to resource development in the pelagic realm off California.

California Ocean Fisheries Resources to the Year 1960, 77 pp., illus., printed. California Department of Fish and Game, 722 Capitol Ave., Sacramento, Calif. A preliminary report of the work of the California Department of Fish and Game in advancing the ability to provide profit from and to preserve the resources of the ocean bordering Californian shores for the benefit of California sport and com-

mercial fishermen. Concerns itself only with marine resources.

CANADA:

Fisheries Statistics of Canada, 1959 (Canada Summary), 51 pp., printed in French and English, 75 Canadian cents. Queen's Printer and Controller of Stationery, Ottawa, Canada, September 1961. This report provides a summary of the Canadian fisheries, arranged to show separately the three main fisheries areas--Atlantic, Pacific, and Inland. Also contains statistical tables on catch of fish, products, employment in the primary industry, fishing craft and gear.

Journal of the Fisheries Research Board of Canada, vol. 18, no. 4, 1961, 166 pp., illus., printed, C\$1.50. Queen's Printer and Controller of Stationery, Ottawa, Canada. Includes, among others, the following articles: "Proximate Composition of Canadian Atlantic Fish. I--Variation in Composition of Different Sections of the Flesh of Atlantic Halibut (Hippoglossus hippoglossus); II--Mackerel, Tuna and Swordfish, "by A. Mannan, D. I. Fraser, and W. J. Dyer; "The Amino Acid Composition of Cod Tropomyosin," by P. L. Hoogland and others; "Observations on the Ecology of the Pacific Cod (Gadus macrocephalus) in Canadian Waters," by K. S. Ketchen; "Two Epidemics of Apparent Kidney Disease in Cultured Pink Salmon (Oncorhynchus gorbuscha)," by Gordon R. Bell; "Muscle Proteins of Pacific Salmon (Oncorhynchus). I--A Note on the Separation of Muscle Proteins Soluble in Low Ionic Strength Salt Solutions," by H. Tsuyuki and Eve Roberts; and "Temperature and the Biochemical Processes Occurring during Rigor Mortis in Cod Muscle," by Doris I. Fraser, Somsee Punjamapirom, and W. J. Dyer.

CARP:

"Crossbreeding Carps," by I. V. Kiselev, article, Agrobiologiia, no. 2, March-April 1961, pp. 206-216, printed in Russian. Agrobiologiia, Moscow, U.S.S.R.

"Effect of Breeding on Changes in Certain Characteristics of Carp," by V. A. Movhcan, article, Agrobiologiia, no. 2, March-April 1961, pp. 217-221, printed in Russian, Agrobiologiia, Moscow, U.S.S.R.

"Results of Raising Wild and Pond Carp Crosses in Ponds Contaminated by Hemorrhagic Septicemia," by I. M. Karpenko and M. S. Sventsits'kyi, article, Visnyk Sil' S'Kohospodar'skoi Nauky, vol. 4, no. 1, January 1961, pp. 116-117, printed in Russian. Visnyk Sil' S'Kohospodar'skoi Nauky, Kiev, U.S.S.R.

"Using Antibiotics for the Prevention and Treatment of Hemorrhagic Septicemia in Carp," by O. K. Shcherbna and others, article, Visnyk Sil' S'Kohospodar'skoi Nauky, vol. 4, no. 2, February 1961, pp. 89-92, printed in Russian. Visnyk Sil' S'Kohospodar'skoi Nauky, Kiev, U.S.S.R.

COALFISH:

Biology of the Coalfish (Pollachius virens L.) in the Barents Sea," by N. V. Mironova, article, Trudy Okeanograficheskoi Komissii, vol. 10, no. 4, 1960, pp. 55-61, printed in Russian. Trudy Okeanograficheskoi Komissii, Akademii Nauk SSSR, Moscow, U.S.S.R.

COMMUNIST CHINA:

Development in the Fishing Industry in Communist
China, by Ajia Kenkyu and Ajiya Keizai Junpo, JPRS
9817, 49 pp., processed. (Translated from Japanese
Ajia Kenkyu, No. 271, June 6, 1961, pp. 2-9; No. 272,
June 13, 1961, pp. 7-10). Photocopies of this report
may be purchased from: Photoduplication Service,
Library of Congress, Washington 25, D. C.

CONCHS:

Studies on the Crown Conch MELONGENA CORONA Gmelin, by Ralph R. Hathaway and K. D. Woodburn, Contribution No. 41, 21 pp., illus., printed. (Reprinted from Bulletin of Marine Science of the Gulf and Caribbean, vol. 11, no. 1, pp. 45-65, March 1961.) Marine Laboratory State Board of Conservation, St. Petersburg, Fla.

CONSERVATION:

Marine Fisheries: Their Conservation and Their Potential, by C. E. Lucas, Marine Reprint, printed. (Reprinted from Advancement of Science 1961.)

Marine Laboratory, Department of Fisheries for Scotland, Aberdeen, Scotland, 1961. Describes the sea as the source of valuable marine fisheries. In discussing the conservation and potential of the resource, the author points out that the yield, about 30 million tons of animal protein a year throughout the world, is small in comparison with the yield from agriculture, but it has great potentialities. He thinks it can be doubled by the simple application of present knowledge and techniques, but that further knowledge would open the way to a much larger harvest.

DAMS AND FISHERY RESEARCH:

Progress Report on Fisheries Engineering Research
Program, 156 pp., illus., processed. U.S. Army
Engineer Division, North Pacific, Corps of Engineers, 210 Custom House, Portland 9, Oreg., July 1960. Contains papers on "Guiding Downstream Migrant Salmon and Steelhead Trout;" "Results of a Tagging Program to Enumerate the Numbers and to Determine the Seasonal Occurrence of Anadromous Fish in the Snake River and its Tributaries;" "Enumeration Study Upper Columbia and Snake Rivers; "Evaluation of the Ability of an Artificial Outlet to Attract Downstream Migrant Salmonids from the Reservoir of Lookout Point Dam;" "The Control of Downstream Migrants by Means of Mechanical Screens;" "Fishway Attraction Water Supply Study;" "Effect of Structures at Main Columbia River Dams on Downstream Migration of Fingerlings;" "The Status of Electrical Fish Guiding Experiments;" "Research Relating to McNary Supplemental Spawning Channel;" "Research on Fishway Problems;" "A Study to Determine the Effects of Electricity on Salmon and Steelhead Trout;" "A Study to Investigate the Effects of Fatigue and Current Velocities on Adult Salmon and Steelhead Trout;" "Research Relating to Mortality of Downstream Migrant Salmon Passing McNary and Big Cliffs Dams;" "Powerhouse Fish Collection System and Transportation Flows, Bonneville Dam;" "Submerged Orifice Research Powerhouse Fish Collection System, Bonneville Dam;" "Buoyant Submerged Orifice Research;" "An Investigation of the Effect of The Dalles Dam upon Migration Rates of Adult Salmonids, 1956 and 1957;" "Experimental Studies on the Survival of the Early Stages of Chinook Salmon after Varying Exposures to Upper Lethal Temperatures;" and "Fish Passage through Turbines."

DENMARK

Fiskeriberetning for Aret 1960 (The Ministry of Fisheries Annual Report for 1960), 135 pp., illus., printed in Danish with English summary. Fiskeriministeriet, 1 Kommission Hos. G.E.C. Gad, Copenhagen, Denmark. A report on the Danish fishing industry during 1960. Includes information and statistical tables on number of fishermen employed, fishing fleet, fishing gear, landings of fish and shell-fish. Also contains information on fish farms; production of canned, filleted, and smoked fish; and foreign trade in fishery products.

Journal du Conseil, vol. 26, no. 3, September 1961, 106 pp., illus., printed. Conseil Permanent International pour l'Exploration de la Mer, Charlottenlund Slot, Denmark. Includes, among others, these articles: "An Automatic Method of Counting Fish Echoes," by R. B. Mitson and R. J. Wood; "The Effect of Pressure on the Survival and Distribution of Larval and Young Fish," by H. M. Bishai; "Otolith Studies of Southern North Sea Herring," by D. F. S. Raitt; "Some Unusual Otolith Types on the Bloden Ground in 1958 and Their Subsequent Occurrence in the Adult Fisheries," by D. F. S. Raitt; and "The Experimental Modification of Meristic Characters in Herring (Clupea harengus L.)," by G. Hempel and J. H. S. Blaxter.

DISTRIBUTION OF FISH:

"Intermittent Distribution of Fishes and Large Fluctuations of the Ocean Level," by G. U. Lundberg, article, Trudy Okeanograficheskoi Komissii, vol. 10, no. 4, 1960, pp. 14-16, printed in Russian. Trudy Okeanograficheskoi Komissii, Akademii Nauk SSSR, Moscow, U.S.S.R.

DOLPHINS:

"Simulated Wave-Riding Dolphins," by Byrne Perry, A. J. Acosta, and Taras Kiceniuk, article, Nature, vol. 192, no. 4798, October 14, 1961, pp. 148-150, illus., printed. St. Martins Press, Inc., 175 Fifth Ave., New York 10, N. Y.

EUROPEAN FREE TRADE ASSOCIATION:

First Annual Report of the European Free Trade Association, for the Period ending 1st July, 1961, 40 pp., printed. European Free Trade Association Information Office, 711 Fourteenth St. NW., Washington 5, D. C.

EXPORTS:

Preparing Shipments to Senegal, WTIS Part 2, Operations Report No. 61-55, 8 pp., printed, single copy 10 cents. Bureau of International Programs, U. S. Department of Commerce, Washington, D. C., August 1961. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.)

Brazil, WTIS Part 2, Operations Report No. 61-58, 12 pp., printed, 10 cents, September 1961.

Singapore, WTIS Part 2, Operations Report No. 61-59, 8 pp., printed, 10 cents, September 1961.

Turkey, WTIS Part 2, Operations Report No. 61-51, 8 pp., printed, single copy 10 cents. Bureau of International Programs, U. S. Department of Commerce, Washington, D.C., August 1961. (For sale by the Superintendent of Documents, U.S. Govvernment Printing Office, Washington 25, D.C.)

FAROES ISLANDS:

Development of the Faroese Fishing Fleet, Faroe in. Figures no. 15, 6 pp., printed. Faero Amts Spare-kasse, Copenhagen, Denmark, September 1961. Reviews developments in the Faroese fishing fleet and summarizes local Government budgets, 1952-1962. It also contains current data on fish production and exports.

FISH BEHAVIOR:

"Role of Sense Organs in the Feeding of Sargus annularis L. and Some Characteristics of Its Schooling Behavior," by M. P. Aronov, article, Trudy Sevastopol'skaia Biologicheskaia Stantsiia, no. 13, 1960, pp. 266-274, printed in Russian. Trudy Sevastopol'skaia Biologicheskaia Stantsiia, Akademiia Nauk SSSR, Leningrad, U.S.S.R.

"Studying the Adaptive Significance of Schooling Behavior in Fishes," by B. P. Manteifel and D. V. Radakov, article, <u>Uspekhi Sovremennoi Biologii</u>, vol. 50, no. 3, November-December 1960, pp. 362-379, printed in Russian. Uspekhi Sovremennoi Biologii, Akademii Nauk SSSR, Moscow, U.S.S.R.

FISH CULTURE:

Hodowla Ryb Stawowych (Fish Cultivation in Ponds), by W. Goscinski, 565 pp., illus., printed in Polish. Pod Red. W. Goscinskiego (i) A. Rudnickiego, Panstwowe Wydawn. Rolnicze i Lesne, Warsaw, Poland, 1956.

FISH MEAL:

Fish Meal Boosts Broiler Growth, by Edgar C. Quillin, 3 pp., illus., printed. (Reprinted from the Eastern Feed Merchant, September 1961.) Feed Merchant, Garden State Publishing Co., Garden State Bldg., Sea Isle City, N. J.

FISHERY COOPERATIVES:

Cooperation for Fishermen, by Margaret Digby, 136 pp., illus., printed, 75 cents. Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, 1961. A study based on the working papers and proceedings of the Technical Meeting on Fishery Cooperatives, jointly sponsored by FAO and International Labour Office in Naples in May 1959. It deals comprehensively with various aspects of the cooperative organization and management in fisheries. According to the author, "Cooperation among fishermen is today fairly widespread in the leading fishing countries of Europe, in North America, Japan and Australia, but it does not often dominate the industry as farmers' cooperatives frequently dominate agriculture. There are also many countries where it is still virtually unknown." In this study an attempt was made to discover what forms of cooperation have in fact been found applicable to the fishing industry; what conditions have led to their adoption, and thereafter promoted or hindered their success; how in practice each type of organization works and what are its difficulties and opportunities, and what part has been played in cooperative development by government or by deliberate education and leadership from outside the fishing industry.

FISHERY ECONOMICS:

"Economic Problems of the Management of the Pond Fisheries in Poland with Particular Consideration

of the State Management," by H. Skrobisz, article, Wies Wspolczesna, vol. 5, no. 2, February 1961, pp. 86-95, printed in Polish. Wies Wspolczesna, 'Miesiecznik Ruchu Ludowego, Warsaw, Poland.

'Results of the Cooperative Relations between Individual Fishermen and the Economic Fishing Organizations," by E. Parun, article, Morsko Ribarstvo, vol. 12, no. 10, October 1960, pp. 153-155, printed in Serbo-Croatian. Morsko Ribarstvo, Association of Marine Fisheries in Yugoslavia, 3 V. Bagota, Rijeka, Yugoslavia.

FLORIDA:

Summary of Florida Commercial Marine Landings, 1960, and an Analysis of the Catch and Effort of Certain Species, by Albert Rosen and Richard K. Robinson, Marine Fisheries Research No. 61-2, 32 pp., illus., printed. Florida State Board of Conservation, W. V. Knott Bldg., Tallahassee, Fla., July 1961. Presents a summary of Florida's commercial landings of marine products for 1960. The fisheries for shrimp, mullet, Spanish mackerel, and other fish and shellfish are covered. Although the 1960 catch represented a decline of about 8 percent, compared with the previous year, the value was 16 percent higher than that of 1959. Includes a number of statistical tables giving data on landings and value of catches by species and by counties during 1960.

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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 of the United Nations, Viale delle Terme di Caracalla, Rome, Italy.

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La Pesca Peruana en 1960 (The Peruvian Fishery in 1960), by Javier Iparraguirre Cortez, 31 pp., illus., printed in Spanish. Servicio de Pesqueria, Ministerio de Agricultura, Lima, Peru.

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"Pollution of Coastal Areas of the Sea and Measures for Sanitary Protection," by K. B. Khait, article, Gigiena i Sanitariia, vol. 25, no. 6, June 1960, pp. 9-15, printed in Russian with English summary. Gigiena i Sanitariia, Min. Zdravookhraneniia SSSR, Moscow, U.S.S.R.

Proceedings, The National Conference on Water Follution, FS 2. 64/3:P94/960, 607 pp., illus., printed, \$2.25. Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., 1961. Presents the official proceedings of the National Conference on Water Pollution, held in Washington, D. C., December 12-14, 1960. In addition to the reports and discussions on the seriousness of the pollution of the Nation's water courses and the many problems to which this pollution gives rise, this report also presents the recommendations of the Conference for the control of the problem.

PRESERVATION:

Manufacturing Industries, 1959-60--Meat and Fish
Preserving, by S. R. Carver, no. 23, 9 pp., processed. Commonwealth Bureau of Census and Statistics, Canberra, Australia. Contains, among others, tables showing Australia's fish and shellfish pack and imports and exports of fish and shellfish.

PURSE SEINING:

New Methods of Purse Seining for Tuna in the Eastern Pacific Ocean, by Gordon C. Broadhead and Arthur R. Marshall, 7 pp., illus., printed. (Reprinted from Proceedings of the Gulf and Caribbean Fisheries Institute, Thirteenth Annual Session, pp. 67-73, Nov. 1960.) Gulf and Caribbean Fisheries Institute, 1 Rickenbacker Causeway, Virginia Key, Miami, Fla.

RADIOACTIVITY:

"Radioactive Isotopes and Ionizing Radiations in Marine Biology," by G. G. Polikarpov, article, Trudy Sevastopol'skaia Biologicheskaia Stantsiia, vol. 13, 1960, pp. 275-292, printed in Russian. Trudy Sevastopol'skaia Biologicheskaia Stantsiia, Akademiia Nauk SSSR, Leningrad, U.S.S.R.

SALMON:

Age of Pink Salmon and the Pattern of Their Fluctuations in Abundance, by A. P. Vedenskii, 114 pp., processed, \$1.25. (Translated from Russian, Izvestiya Tikhookeanskogo Nauchno-Issledovatel Skogo Instituta Rybnogo Khozyaistva i Okeanografii, vol. 41, pp. 111-195, 1954.) Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C.

"The Fecundity of Atlantic Salmon (Salmo salar Linn.)," by J. A. Pope, D. H. Mills, and W. M. Shearer, Freshwater and Salmon Fisheries Research 26, 12 pp., illus., printed, 4s. (56 U. S.

cents). Her Majesty's Stationery Office, York House, Kingsway, London WC2, England.

"Functional Morphology of the Hypothalamic-Hypophyseal Neurosecretory System in Salmonid Fishes at Different Stages of Their Life Cycle," by I. A. Barannikova, article, Doklady Akademii Nauk SSSR, vol. 136, no. 3, January 1961, pp. 730-733, printed in Russian. Doklady Akademii Nauk SSSR, Podsosenski per. 21, Moscow B-64, U.S.S.R.

"History of Yearling King Salmon Marked and Released at Nimbus Hatchery," by George H. Warner, Donald H. Fry, Jr., and A. Nelson Culver, article, California Fish and Game, vol. 47, no. 4, October 1961, pp. 343-355, printed, single copy 75 cents. California Department of Fish and Game, Printing Division, Documents Section, Sacramento 14, Calif.

"The Nez Perce Dam and the Value of a Fishery," by W. R. D. Sewell and M. E. Marts, article, Land Economics, vol. 37, no. 3, August 1961, pp. 257-260, printed, \$2. Land Economics, Sterling Hall, University of Wisconsin, Madison 6, Wis. Discusses the economic value of the salmon resources of the Colombia River basin versus the importance of its water power potential. Presents details of the Nez Perce and High Mountain Sheep cases.

(State of Maine) Biennial Report of Atlantic Sea Run Salmon Commission (for Period July 1, 1958-June 30, 1960), 14 pp., illus., printed. Atlantic Sea Run Salmon Commission, Fisheries Bldg., University of Maine, Orono, Me.

SARDINES:

"Distribution and Behavior of Sardines (Sardinella aurita) at the Coast of West Africa Depending on Oceanographic Conditions," by A. N. Probatov, article, Trudy Okeanograficheskoi Komissii, vol. 10, no. 4, 1960, pp. 68-70, printed in Russian. Trudy Okeanograficheskoi Komissii, Akademii Nauk SSSR, Moscow, U.S.S.R.

SEA BREAM:

"Growth of the Sea Bream Diplodus annularis (L.) in the Black and Adriatic Seas," by L. P. Salekhova, article, Trudy Sevastopol'skaia Biologicheskaia Stantsiia, no. 13, 1960, pp. 163-165, printed in Russian. Trudy Sevastopol'skaia Biologicheskaia Stantsiia, Akademiia Nauk SSSR, Leningrad, U.S.S.R.

SEALS:

"Autumn and Early Winter Distribution of the Baikal Seal," by V. D. Pastukhov, article, <u>Izvestiia Sibir-skie Otdelenie</u>, no. 2, 1961, pp. 108-115, printed in Russian. <u>Izvestiia Sibirskie Otdelenie</u>, Akademiia Nauk SSSR, Novosibersk, U. S. S. R.

SENEGAL:

"La Peche Maritime au Senegal" (Marine Fisheries of Senegal), by H. Lovat, article, La Peche Maritime, vol. 40, no. 1003, October 1961, pp. 697-703, illus., printed in French. La Peche Maritime, 190, Boulevard Haussman, Paris, France.

SHAD:

"A New (Estuarine) Form of Shad of the Dnieper River and Some Problems in the Taxonomy of Shads

of the Black Sea and the Sea of Azov," by V. I. Vladimirov, article, Zoologicheski Zhurnal, vol. 40, no. 4, April 1961, pp. 547-555, printed in Russian with English summary. Redaktsiia Zoologicheskogo Zhurnala, Podsosenskii per.d.21, Moscow B-64, U.S.S.R.

SHRIMP:

Synoptic Rationale of Existing Florida Shrimp Regulations, by Robert M. Ingle, Contribution No. 48,6 pp., printed. (Reprinted from Proceedings of the Gulf and Caribbean Fisheries Institute, Thirteenth Annual Session, November 1960, pp. 22-27.) Florida State Board of Conservation, Tallahassee, Fla.

SMALL BUSINESS MANAGEMENT:

Business Life Insurance, Management Aids for Small Manufacturers No. 130, 4 pp., processed. Small Business Administration, Washington 25, D. C., October 1961. Business life insurance is life insurance used to protect a business, or the family of a businessman, from the financial loss which results from the death of someone associated with the business. There is no basic difference between business life insurance and the life insurance used for personal and family needs. But the protection set up by a business firm does involve many more complex details to meet legal, financial, tax and technical problems. This report lists the numerous specific purposes for which business life insurance is written, and describes the steps to be taken in the establishment of a business life insurance plan.

Direct Mail Advertising for Small Retailers, by R. M. Lovejoy, Small Marketers Aid No. 72, 4 pp., processed. Small Business Administration, Washington 25, D. C., September 1961. Direct mail advertising is similar to other advertising with some distinctive characteristics which can be extremely valuable to small marketers. This report discusses the types of direct mail advertising, dangers to avoid, and various steps to help in writing attractive advertisements

Personal Factors in Choosing a Site for the Small Manufacturing Plant, by Zenon S. Malinowski and William N. Kinnard, Jr., Management Research Summary, 4 pp., processed. Small Business Administration, Washington 25, D. C. The study reported in this summary was undertaken (1) to help the owner-managers of small manufacturing firms recognize and understand the role of both economic and noneconomic factors in the choice of a plant site, and (2) to provide community leaders with information that might prove useful in creating an atmosphere attractive to new small industry. It was concluded that personal considerations play an important part in plant-location decisions, especially in the choice of general area and town or community. In considering a new location, the small manufacturer must distinguish carefully between economic and personal noneconomic factors in order to guard against any tendency to rationalize his personal bias into economic justification.

Selecting a Site for the Small Manufacturing Plant, by James H. Thompson, Management Research Summary, 4 pp., processed. Small Business Administration, Washington 25, D. C. A summary of a report on selecting a site for the small manufacturing plant. One of the most common mistakes in the selection of a plant location, according to the report, is insufficient preliminary planning. The research reported in the summary was undertaken to meet the need of small manufacturers for a guide to plant-location methods. The conclusions are based primarily on interviews with 38 firms with a record of successful site selection.

SOUTH ATLANTIC OCEAN:

"Notes on the Fishing Effort Along Parts of the Occidental Shelf of the South Atlantic Ocean," by M. P. Paiva, article, Boletim de la Sociedade Cearense de la Agronomia, vol. 1, 1960, pp. 179-186, printed in Portuguese. Boletim de la Sociedade Cearense de la Agronomia, Fortaleza, Ceara, Brazil.

SPINY LOBSTERS:

"Exploração da Lagosta no Ceara" (Spiny Lobster Exploration in Ceara), by M. P. Paiva, article Mundo Agrario, vol. 7, no. 97, 1959, p. 17, printed in Portuguese. Mundo Agrario, Rio de Janeiro, Brazil.

"Perspectivas da Exploracao Lagosteira no Rio Grande do Norte" (Review of Spiny Lobster Exploration in Rio Grande do Norte), by M. P. Paiva, article, <u>Mundo</u> <u>Agrario</u>, vol. 8, no. 101, 1959, p. 20, illus., printed in Portuguese. Mundo Agrario, Rio de Janeiro, Brazil.

"On the Spiny Lobster Fishing in Ceara," by M. P. Paiva, article, Boletim Antropologia, vol. 2, no. 1, 1958, pp. 63-70, illus., printed in Portuguese. Associacao Brasileira de Antropologia, Rua da Matriz 92, Botafogo, Rio de Janeiro, Brazil.

SPRAT:

"Age Variations in the Morphology of Sprat (Sprattus sprattus phalericus Risso) in the Black Sea and Their Functional Significance," by N. Ia. Lipskaia, article, Trudy Sevastopol'skaia Biologicheskaia Stantsiia, no. 13, 1960, pp. 180-184, printed in Russian. Trudy Sevastopol'skaia Biologicheskaia Stantsiia, Akademiia Nauk SSSR, Leningrad, U.S.S.R.

"Diurnal and Seasonal Variations in the Feeding of Sprat (Sprattus sprattus phalericus Risso) in the Black Sea," by N. Ia. Lipskaia, article, Trudy Sevastopol'skaia Biologicheskaia Stantsiia, no. 13, 1960, pp. 190-203, printed in Russian. Trudy Sevastopol'skaia Biologicheskaia Stantsiia, Akademiia Nauk SSSR, Leningrad, U.S.S.R.

STARFISH:

"Enigma of an Echinoderm," by Allison L. Burnett, article, Natural History, vol. 70, no. 9, November 1961, pp. 10-19, illus., printed. The American Museum of Natural History, Central Park West at 79th St., New York 24, N. Y. Discusses the complex anatomy of the starfish. Much of the starfish's biology remains a scientific mystery.

STURGEON:

Beluga Chernogo Moria (Beluga of the Black Sea), by
A. I. Ambroz, Uchenye Zapiski, vol. 56, 199 pp.,
printed in Russian. Kishinev Universitet, Kishinev,
U.S.S.R.

SWORDFISH:

Scientists Study the Swordfish," by G. J. Gillespie, article, Trade News, vol. 14, no. 3, September 1961, pp. 3-7, illus., printed. Information and Educational Service, Department of Fisheries, Ottawa, Canada. The spectacular growth of the swordfish industry in Nova Scotia—the only province in the Canadian Maritimes where swordfish are hunted—has encouraged further study of the biology and ecology of the swordfish. This article describes some of the work which has been done in this field of research, and discusses the distribution of the swordfish, its behavior, and living habits. The history of fishing for swordfish in the northwest Atlantic is also discussed.

TARIFFS:

Import Tariff System of Paraguay, WTIS Part 2, Operations Report No. 61-63, 2 pp., printed, single copy 10 cents. Bureau of International Programs, U.S. Department of Commerce, Washington, D. C., September 1961. (For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D. C.)

Tariff Classification Study: Alphabetical Index of Commodities Provided for in the Proposed Revised Tariff Schedules of the United States, May 20, 1961, Miscellaneous Series TC, 130 pp., processed, 65 cents. United States Tariff Commission, Washington, D. C., 1961. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) This volume contains an alphabetical index of commodities (including fish, shellfish, and fishing equipment) provided for in the "Proposed Revised Tariff Schedules of the United States." The index has been prepared to facilitate reference to the proposed tariff schedules.

TOXICITY

Toxicity of Different Poisons Used in Antifouling Paints," by M. A. Dolgopol'skaia and E. S. Gurevich, article, Trudy Sevastopol'skaia Biologicheskaia Stantsiia, no. 13, 1960, pp. 315-325, printed in Russian. Trudy Sevastopol'skaia Biologicheskaia Stantsiia, Akademiia Nauk SSSR, Leningrad, U.S.S.R.

TRADE LISTS:

The Bureau of International Business Operations, U. S. Department of Commerce, Washington 25, D. C., has published the following mineographed trade lists. Copies may be obtained by firms in the United States from that office or from Department of Commerce field offices at \$1 a copy.

Canneries and Frozen Foods--Producers and Exporters--Guatemala, 2 pp. (October 1961). Includes the name and address of one firm in Guatemala which processes and exports frozen shrimp to the United States. The exporting firm reports an average production of about 80,000 pounds of shrimp a month. In 1960 exports of frozen shrimp were valued at \$159,000.

Canneries -- Republic of South Africa, 9 pp. (September 1961). Lists the names and addresses, size of firms, and types of products (including fish and shellfish) handled by each firm.

Canneries and Frozen Foods--Producers and Exporters--Turkey, 4 pp. (August 1961). Lists the names and addresses, size of firms, and types of

products handled by each firm. Includes producers and exporters of canned fish and frozen fish.

TRAPS

"Trapping Devices as Basic Equipment for Catching First-Class Fish," by W. Korzynek, article Gospodarka Ryb, vol. 7, no. 6, June 1955, pp. 18-19, printed in Polish. Gospodarka Ryb, Warsaw, Poland.

TRAWLERS:

"The Case for the Stern Ramp," by C. Birkhoff, article, World Fishing, vol. 10, no. 10, October 1961, 28-29, 35, illus., printed, 3s. (about 42 U. S. cents). John Trundell (Publishers) Ltd., St. Richard's House, Eversholt St., London NW1, England. Discusses the pros and cons of current trends in the gear-hauling arrangements of stern trawlers.

"Trawlers Will Come from the Atlantic Ocean," by V. A. Eroshchev-Shak, article, <u>Doklady Akademii</u> <u>Nauk SSR</u>, vol. 137, no. 4, April 1961, pp. 951-953, <u>printed in Russian</u>. Doklady Akademii Nauk SSSR, Podsosenski per. 21, Moscow B-64, U.S.S.R.

TROUT:

An Evaluation of Stocking Hatchery-Reared Steelhead
Rainbow Trout (SALMO GAIRDNERII GAIRDNERII)
in the Sacramento River System, by Richard J. Hallock, William F. Van Woert, and Leo Shapovalov,
Fish Bulletin No. 114, 75 pp., illus., printed. California Department of Fish and Game, 987 Jedsmith
Dr., Sacramento 19, Calif.

Polowy Troci (SALMO TRUTTA L.) w Zatoche Gdanskiej i w Systemie Rzecznym Wisly (Catches of Sea Trout (Salmo trutta L.) in the Danzig Bay and in the Vistula River System), by Jan Jokiel and Tadeusz Backiel, 16 pp., illus., printed in Polish with summary in English. (Reprinted from Roczniki Nauk Rolniczych, no 75-B-2, pp. 213-222, 1960.) Instytut Rybactaw Srodladowego, Warsaw, Poland.

Some Environmental Relations of the Speckled Trout (SALVELINUS FONTINALIS), by F. E. J. Fry, 29 pp., pp., processed. (Reprinted from the Proceedings of the N. E. Atlantic Fisheries Conference, May 1951.) Ontario Fisheries Research Laboratory, Department of Zoology, University of Toronto, Toronto, Ontario, Canada.

TUNA:

A Method of Predicting Tuna Catch by Using Coastal Sea-Surface Temperatures," by Frank J. Hester, article, California Fish and Game, vol. 47, no. 4, October 1961, pp. 313-326, illus., printed, single copy 75 cents. California Department of Fish and Game, Printing Division, Documents Section, Sacramento 14, Calif. This study attempts to relate fluctuations in the temperate tuna catch (bluefin and albacore) to environmental conditions as measured by sea-surface temperatures at two shore stations in southern California. In summary, the author states that "(1) Tuna landings from southern California waters fluctuate from year to year both in quantity and area of capture; (2) A correlation has been shown between sea-surface temperature--July, August, and September mean--at two southern California shore stations and bluefin and albacore catch from selected areas; (3) This correlation holds when winter water temperatures are used permitting a forecast of blue-

fin and albacore catch before the season begins; (4) Equations have been given for predicting any year's bluefin and albacore catch in selected areas and limits of confidence are set; and (5) Landings from the selected areas have been compared with total California landings."

"Notas Biologicas sobre os Atuns" (Biological Notes on Tunas), by M. P. Paiva, article, Mundo Agrario, vol. 7, no. 99, 1959, p. 37, printed in Portuguese. Mundo Agrario, Rio de Janeiro, Brazil.

Tuna Oceanography Programs in the Tropical Central and Eastern Pacific, by Milner B. Schaefer, 4 pp., printed. (Reprinted from California Cooperative Oceanic Fisheries Investigations, vol. 8, pp. 41-44, Jan. 1961.) California Department of Fish and Game, 722 Capitol Ave., Sacramento, Calif.

"La Peche du Thon a la Senne Tournante aux Etats-Unis" (The Purse-Seine Tuna Fishery in the United States), by Michel Angot, article, <u>La Peche Maritime</u>, vol 40, no. 1003, October 1961, pp. 704-715, illus., printed in French. La Peche Maritime, 190 Boulevard Haussmann, Paris, France.

"Ships for Tuna Fishing," by J. Forembski and B. Pradzynski, article, <u>Bud Okretowe Warszawa</u>, vol. 6, no. 3, March 1961, pp. 90-92, printed in Polish. Bud Okretowe Warszawa, Warsaw, Poland.

TURKEY:

Balik ve Balikcilik (Fish and Fishery), vol. 9, no. 7, September-October 1961, 32 pp., illus., printed in Turkish with English table of contents. Balik ve Balikcilik, Balikcilik Mudurlugu, Besiktas, Istanbul, Turkey. Includes the following articles:, "The General Conditions of the Black Sea Fishery," by Sebahattin Sehri; "Turkish Lakes in Respect of Fishery," by M. Ilham Artuz; and "Blue Fish," by Sitki Uner.

URTLES:

"La Tortuga Verde o 'Jaco'" (The Green Turtle or "Jaco"), by Federico Gomez de la Maza, article, Mar y Pesca, vol. 4, nos. 3-4, January-February 1961, pp. 8-10, 56, illus., printed in Spanish, 20 centavos (20 U. S. cents). Departamento de Pesca Edificio I.N.R.A., Onceno Piso, Plaza Civica, Havana, Cuba.

LTRASONIC DETECTION:

"Application and Principle of the Work of Ultrasonic Detection in Oceanographic and Biological Research," by S. Alfirevic, article, Morsko Ribarstvo, vol. 12, no. 10, October 1960, pp. 159-163, printed in Serbo-Croatian. Morsko Ribarstvo, Association of Marine Fisheries in Yugoslavia, 3 V. Bagota, Rijeka, Yugoslavia,

NITED STATES PORTS:

Distances between United States Ports, Third (July 1, 1961) Edition, 43 pp., printed, 25 cents. Coast and Geodetic Survey, U. S. Department of Commerce, Washington 25, D. C., 1961. This report is a byproduct of the United States Coast Pilots and assembles under one cover the distance tables computed for the eight books. Each distance is by shortest route that safe navigation permits between the two ports concerned.

U. S. S. R.:

Acclimatization of Fish and Food Organisms in Seas of U. S. S. R., by A. F. Karpevich and others, OTS:61-23555, 227 pp., illus., printed. (Xerox reproduction, \$15.50, for sale by Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C.)

K. Biologii Lobana u Beregov Gruzii (Biology of the Striped Mullet Along the Georgian Coast), by D. Kh. Meskhidze, 82 pp., printed in Russian. Gosplanie Izdatel'stvo, Batumi, U. S. S. R., 1960.

Iz Istorii Nauchno-Promyslovykh Ikhtiologicheskikh
Isledovanii na Morskikh i Presnykh Vodoemakh SSR
(From the History of Scientific-Ichthyological Fishery Research in the Seas and Fresh-Water Bodies of the U. S. S. R.), by P. G. Borisov, 196 pp., printed in Russian. "Vysshaia Shkola," Gosplanie Izdatel'stvo, Moscow, U. S. S. R., 1960.

Shortcomings in the Fish Industry of the Kaliningradskiy Sovnarkhoz, by I. G. Shapiro, JPRS 9712, 8 pp., processed. (Translated from Russian Rybnoe Khoziaistvo, no. 2, 1961, pp. 73-77.) Photocopies of this report may be purchased from: Photoduplication Service, Library of Congress, Washington 25, D. C.

VESSELS:

Experience in Fishing Boatbuilding Applicable to the IPFC Region," by Jan-Olaf Traung, article, IPFC Current Affairs Bulletin, no. 30, April 1961, pp. 1-30, illus., printed. Indo-Pacific Fisheries Council, Food and Agriculture Organization of the United Nations, Bangkok, Thailand. Discusses the application of naval architecture to small fishing boat construction. Since the layout of a boat, general arrangement of the wheelhouse and engine, fuel tanks and fish hold, depend on the actual fishing method, suggestions are made regarding trawlers, long-liners, purse seiners, and gill-netters. Mechanization of fishing gear is as important as motorization of the craft, according to the author. On small open boats, ice boxes appear to be an economical method of stowing the catch. With modern improvements, small steel boats have been found to be cheaper than wooden ones in many parts of the world. When ordering a boat, a buyer should consider the following--fishing conditions, operational information, economic factors, and construction considerations. The importance of drawings is stressed and suggestions as to boat design are given.

"Marine Fouling," by N. I. Tarasov, article, Zoologicheski Zhurnal, vol. 40, no. 4, April 1961, pp. 477-489, printed in Russian with English summary. Redaktsiia Zoologicheskogo Zhurnala, Podsosenskii per.d.21, Moscow B-64, U. S. S. R.

VIETNAM:

A Check List of Fishes of Vietnam, by Katsuzo Kuronuma, 74 pp., printed. Division of Agriculture and Natural Resources, United States Operations Mission to Vietnam, Saigon, Vietnam, January 1961. Listed are 807 fish species in 411 genera and 139 families with their scientific classification, and where known, their Vietnamese, Japanese, and English names. Provides a handy reference to aid in the study of fish fauna of Vietnam, and also a means to identify the species of fish which are known only by local Vietnamese names.

WALRUS

"Among the Walruses," by V. M. Bel'kovich and A. V. Iablokov, article, Priroda, vol. 50, no. 3, March 1961, pp. 50-56, printed in Russian. Priroda, Akademiya Nauk SSR, M. Khariton'yevski per.4, Moscow, U. S. S. R.

WEST AFRICA:

"The Organization of Fishing in the Waters of West Africa, by Z. Czerminski, article, Zycie Gospodarcze, vol. 16, no. 15, April 1961, p. 6, printed in Polish. Zycie Gospodarcze, Warsaw, Poland.

WHALING:

"Industria Baleeira nos Acores e Madeira Determinantes do seu Progresso" (Trends in the Whaling Industry of the Azores and Madeira), by Joao Burnay Carvalhais, article, <u>Boletim da Pesca</u>, vol. 13, no. 72, pp. 13-24, printed in Portuguese. Boletim da Pesca, Gabinete de Estudos das Pescas, 644 R. S. Bento, Lisbon, Portugal.

"Whaling Operations in the Antarctic in the Season 1960/61," article, Norsk Hvalfangst-Tidende (Norwegian Whaling Gazette), vol. 50, no. 9, September 1961, pp. 355-372, 375-376, 379, illus., printed in Norwegian and English. Norsk Hvalfangst-Tidende, Sandefjord, Norway. A survey of the whaling operations in the Antarctic in the season 1960/61 prepared for and submitted at the meeting of the International Whaling Commission in London in June 1961. It covers the most important regulations in the International Whaling Convention for the countries operating in the Antarctic in the 1960/61 season; the number of factoryships and catching boats engaged in pelagic whaling since the 1945/46 season, and their average gross tonnage; and the periods of operation for the various groups of expeditions. Includes statistical data on the catch and oil production of the individual expeditions, and other data on pelagic whaling in the Antarctic in the 1960/61 season.

WOLFFISH:

"Dates of the Change of Teeth in Atlantic Wolf Fishes (Anarhichadidae)," by V. V. Barsukov, article, Zoologicheski Zhurnal, vol. 40, no. 3, March 1961, pp. 462-465, printed in Russian with English summary. Redaktsiia Zoologicheskogo Zhurnala, Podsosenskii per.d.21, Moscow B-64, U. S. S. R.

YUGOSLAVIA:

"Development of Fisheries at Losinj Island, from Their Beginning to the Present Time," by N. Pincic, article, Morsko Ribarstvo, vol. 12, no. 10, October 1960, p. 166, printed in Serbo-Croatian. Morsko Ribarstvo, Association of Marine Fisheries in Yugoslavia, 3 V. Bagota, Rijeka, Yugoslavia.

"Development of the Yugoslav Shelifish Fisheries," by V. Krizanic, article, Morsko Ribarstvo, vol. 12, no. 10, October 1960, pp. 155-156, printed in Serbo-Croatian. Morsko Ribarstvo, Association of Marine Fisheries of Yugoslavia, 3 V. Bagota, Rijeka, Yugoslavia.

"Fisheries of Zadar," by J. Basioli, article, Morsko Ribarstvo, vol. 12, no. 10, October 1960, pp. 164-166, printed in Serbo-Croatian. Morsko Ribarstvo, Association of Marine Fisheries in Yugoslavia, 3 V. Bagota, Rijeka, Yugoslavia.

"Problems of Sea Fisheries," by M. Maric, article, Nova Trgovina, vol. 14, no. 1, January 1961, pp. 26-28, printed in Serbo-Croatian. Nova Trgovina, Belgrade, Yugoslavia.

"Study of the Improvement of Fishery Cadres," by I. Blagalic, article, Morsko Ribarstvo, vol. 12, No. 10, October 1960, pp. 156-157, printed in Serbo-Croatian, Morsko Ribarstvo, Association of Marine Fisheries Yugoslavia, 3 V. Bagota, Rijeka, Yugoslavia.



HOW FISH ARE SMOKED

The smoking process of fish involves the combination of salting and drying, and the characteristic smoke flavor depends upon the degree to which either of these processes is used. Smoking is employed largely for the preservation of herrings, but whiting, cod, king, haddock, catfish, and mackerel are also preserved in this manner. Both hot and cold curing are used. Of the two the hot smoking process imparts better preservative qualities. The type of wood used for the hot smoke is of special importance. Hard woods with less oil and resins which might taint the fish are preferred. (Sea Secrets, The Marine Laboratory, University of Miami, Coral Gables, Fla.)