



# RECENT FISHERY PUBLICATIONS

## FISH AND WILDLIFE SERVICE PUBLICATIONS

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

- CFS - CURRENT FISHERY STATISTICS OF THE UNITED STATES.  
 FL - FISHERY LEAFLETS.  
 SL - BRANCH OF STATISTICS LIST 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.

Number	Title
CFS-2339	- Alaska Fisheries, 1959 Annual Summary (Revised), 8 pp.
CFS-2369	- South Atlantic Fisheries, 1959 Annual Summary (Revised), 10 pp.
CFS-2411	- (Supplement) - Foreign Trade in Fish and Marine-Animal Oils, 1925-1959 (H.S.No. 3), 10 pp.
CFS-2418	- Massachusetts Landings, August 1960, 5 pp.
CFS-2419	- Fish Sticks and Portions, July-September 1960, 3 pp.
CFS-2421	- New Jersey Landings, September 1960, 3 pp.
CFS-2422	- North Carolina Landings, September 1960, 3 pp.
CFS-2424	- Alabama Landings, July 1960, 2 pp.
CFS-2425	- Florida Landings, September 1960, 7 pp.
CFS-2426	- Maine Landings, August 1960, 3 pp.
CFS-2427	- Frozen Fish Report, October 1960, 8 pp.
CFS-2428	- Shrimp Landings, August 1960, 6 pp.
CFS-2431	- South Carolina Landings, September 1960, 2 pp.
CFS-2432	- Alabama Landings, August 1960, 2 pp.
CFS-2434	- Maryland Landings, September 1960, 3 pp.
CFS-2436	- Ohio Landings, September 1960, 2 pp.
CFS-2437	- Virginia Landings, September 1960, 3 pp.
CFS-2438	- New York Landings, September 1960, 4 pp.
CFS-2440	- Rhode Island Landings, September 1960, 3 pp.
CFS-2442	- California Landings, July 1960, 4 pp.
CFS-2443	- North Carolina Landings, October 1960, 3 pp.
CFS-2446	- South Carolina Landings, October 1960, 2 pp.
CFS-2447	- Mississippi Landings, August 1960, 2 pp.
CFS-2450	- New Jersey Landings, October 1960, 3 pp.
CFS-2452	- Maine Landings, September 1960, 3 pp.
CFS-2453	- Georgia Landings, October 1960, 2 pp.
CFS-2455	- Florida Landings, October 1960, 7 pp.
FL-254	- (Revised October 1960) - List of Fishery Associations in the United States, 13 pp.
FL-336tt	- Commercial Fisheries Outlook, October-December 1960, 44 pp.

SL-26 - Wholesale Dealers in Fishery Products, Illinois (Great Lakes Area), 1960 (Revised).

SSR-Fish. No. 341 - Microhematocrit as a Tool in Fishery Research and Management, by S. F. Snieszko, 17 pp., illus., June 1960.

SSR-Fish. No. 344 - Observations on Fishes and Other Biota of East Lagoon, Galveston Island, by Edgar L. Arnold, Jr., Ray S. Wheeler, and Kenneth N. Baxter, 33 pp., illus., July 1960.

SSR-Fish. No. 347 - Survey of the Ocean Fisheries off Delaware Bay--Supplemental Report, 1954-57, by John W. Reintjes and Charles M. Roithmayr, 22 pp., illus., July 1960. This report concludes a survey of ocean fisheries off Delaware Bay for the period 1954-57 (includes some data on the 1958 winter fisheries) and constitutes a supplement to a report for the period 1946-53. Measurements of catch, catch per unit effort, and total fishing effort for the major fisheries of the area (excluding the menhaden purse-seine fishery) indicate that the otter-trawl and pot fisheries have remained relatively stable during the period. The surf-clam fishery has shown an increased production, but a decline in apparent abundance. Minor fisheries, including pound net, gill net, trawl line, hand line, and purse seine for food fish, have dwindled in importance, and some are near extinction. Recommendations are included concerning utilization of the fishery resources of the area and proposed studies, and waste disposal in the coastal waters.

SSR-Fish. No. 354 - The Abundance and Distribution of Hard Clams in Nantucket Sound, Massachusetts, 1958, by John W. Ropes and Charles E. Martin, 14 pp., illus., July 1960. A survey was made during the summer of 1958 to assess the abundance of hard clams, *Venus (Mercenaria) mercenaria*, in Nantucket Sound, Mass. A jet (hydraulic) dredge was used as the principal sampling gear. Data from 214 sample stations compared with other Atlantic Coast areas indicated that the abundance of hard clams in Nantucket Sound was extremely low. The survey revealed no new general areas of commercial abundance. No clams less than 60 millimeters (2-3/8 inches) were caught. Because of hydrographic conditions unfavorable for spawning and setting and because there are few clams to augment the present stocks, the future of this fishery is uncertain.

SSR-Fish. No. 356 - Size Distribution of Pink Shrimp, *PENAEUS DUORARUM*, and Fleet Concentrations on the Tortugas Fishing Grounds, by Edwin S. Iversen,

Andrew E. Jones, and C. P. Idyll, 65 pp., illus., August 1960. A study of the pink shrimp, *Penaeus duorarum*, on the Tortugas fishing grounds was undertaken during 1957 and 1958 to provide information on the nature of the relation between the size of shrimp and the depth of water where they occur, together with fleet concentrations and degree of discarding of small pink shrimp. The average carapace length of both male and female shrimp increased both with depth of water and with northerly distance from the Florida Keys. Small pink shrimp were most abundant from September 1957 through May 1958, appearing on the eastern and southeastern portion of the grounds, where the highest try-net catches were made. The fleet concentrated there during December to June but was more widely distributed during the summer. Apparently, few small pink shrimp were discarded.

SSR-Fish. No. 360 - Passamaquoddy Fisheries Investigations, 1957-1958 (Report to the International Joint Commission), by International Passamaquoddy Fisheries Board, 47 pp., illus., August 1960. In 1956, the Governments of Canada and the United States asked the International Joint Commission to determine whether the tidal forces of Passamaquoddy and Cobscook Bays could be used to produce hydroelectric power, and to appraise the effect of power dam construction on the important fish and shellfish industries of the area. The present report gives findings, conclusions, and recommendations of the Board set up to implement this request.

SSR-Fish. No. 362 - Main-Stem and Tributary Sampling of Red Salmon Scales for Population Studies, by Ted S. Y. Koo and Howard D. Smith, 12 pp., illus., August 1960.

Sep. No. 609 - Shrimp Exploration in Central Alaskan Waters by the M/V John N. Cobb, October-November 1959.

Sep. No. 610 - Physical and Chemical Properties of Shrimp Drip as Indices of Quality.

Sep. No. 611 - Equipment Note No. 8 - New Hydraulically-Driven Block.

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.

Number	Title
MNL-13	India's Fisheries, 1959, and Export Potentialities.
MNL-40	Fisheries in Morocco, 1959.

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

(Baltimore) Monthly Summary - Fishery Products, August, September, October, and November 1960, 8 pp. each. (Market News Service, U. S. Fish and Wildlife Service, 400 E. Lombard St., Baltimore 2, Md.) Receipts at Baltimore by species and by states and provinces for fresh- and salt-water fish and shellfish; total receipts by species and comparisons with previous years; and wholesale prices on the Baltimore market; for the months indicated.

California Fishery Products Monthly Summary, Part I--Fishery Products Production and Market Data,

October and November 1960; 16 pp. each. (Market News Service, U. S. Fish and Wildlife Service, Post Office Bldg., San Pedro, Calif.) California cannery receipts of tuna and tunalike fish and sardines; pack of canned tuna, mackerel, anchovies, and sardines; market fish receipts at San Pedro, Santa Monica, and Eureka areas; California and Arizona imports; canned fish and frozen shrimp prices; and ex-vessel prices for cannery fish; for the months indicated.

California Fishery Market News Monthly Summary, Part II--Fishing Information, October 1960; November 1960; 8 pp. each, illus. (Bureau of Commercial Fisheries, Biological Laboratory, P. O. Box 6121, Pt. Loma Station, San Diego 6, Calif.) Includes monthly sea-surface temperature charts for the eastern Pacific, and fishing and research information of interest to the West Coast tuna fishing industry and marine scientists. The temperature charts cover that area of the Pacific from the Aleutians in the north to Peru and Chile in the south and offshore to 180° W. longitude. They show for each month the average sea-surface temperature and the deviations from the 30-year average and from the previous year. Research and fishing information indicates that the distribution of tunas and many other commercial species is directly affected by sea-surface temperatures.

Chemical Control of Shellfish Enemies, by V. L. Loosanoff, C. L. MacKenzie, Jr., and H. C. Davis, Bulletin No. 8, 20 pp. processed. Biological Laboratory, Bureau of Commercial Fisheries, U. S. Fish and Wildlife Service, Milford, Conn., November 16, 1960. A report on chemical control of shellfish predators and competitors, which covers progress made in the use of heavy oils mixed with inert carriers as a control of clam and oyster enemies such as starfish and boring snails. Detailed data are presented on the results of the use of various types of oils as shown by semiweekly collections of oyster spat in Milford Harbor.

(Chicago) Monthly Summary of Chicago's Fresh and Frozen Fishery Products Receipts and Wholesale Market Prices, November 1960, 13 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 for fresh- and salt-water fish and shellfish; and wholesale prices for fresh and frozen fishery products; for the month indicated.

Gulf of Mexico Monthly Landings, Production, and Shipments of Fishery Products, August 1960; September 1960; 8 pp. each. (Market News Service, U. S. Fish and Wildlife Service, 609-611 Federal Bldg., New Orleans 12, La.) Gulf States shrimp, oyster, finfish, and blue crab landings; crab meat production; LCL express shipments from New Orleans; wholesale prices of fish and shellfish on the New Orleans French Market; sponge sales; and fishery imports at Port Isabel and Brownsville, Texas, from Mexico; for the months indicated.

List of Primary Receivers of Imported Fishery Products and Byproducts, New York City, 1960, 19 pp. (Market News Service, 155 John St., New York 38, N. Y.) Contains the names and addresses of primary receivers of various types of imported fishery products and byproducts in the New York Metropolitan area and a numbered key to the different types of products handled.

Monthly Summary of Fishery Products Production in Selected Areas of Virginia, North Carolina, and Maryland, November 1960, 4 pp. (Market News Service, U. S. Fish and Wildlife Service, 18 So. King St., Hampton, Va.) Fishery landings and production for the Virginia areas of Hampton Roads, Lower Northern Neck, and Eastern Shore; the Maryland areas of Crisfield, Cambridge, and Ocean City; and the North Carolina areas of Atlantic, Beaufort, and Morehead City; together with cumulative and comparative data; for the month indicated.

New England Fisheries--Monthly Summary, October 1960; November 1960; 22 pp. each. (Market News Service, U. S. Fish and Wildlife Service, 10 Commonwealth Pier, Boston 10, Mass.) Reviews the principal New England fishery ports, and presents food fish landings by ports and species; industrial fish landings and ex-vessel prices; imports; cold-storage stocks of fishery products in New England warehouses; fishery landings and ex-vessel prices for ports in Massachusetts (Boston, Gloucester, New Bedford, Provincetown, and Woods Hole), Maine (Portland and Rockland), Rhode Island (Point Judith), and Connecticut (Stonington); frozen fishery products prices to primary wholesalers at Boston, Gloucester, and New Bedford; and landings and ex-vessel prices for fares landed at the Boston Fish Pier and sold through the New England Fish Exchange; for the months indicated.

New England Haddock Fishery, and Marketing of Haddock Products, 1948-59, by John J. O'Brien, 36 pp., illus., processed. (Market News Service, U.S. Fish and Wildlife Service, 10 Commonwealth Pier, Boston 10, Mass.) The purpose of this report is to summarize in one publication all the data scattered through many Market News Service reports and other publications relative to the New England haddock fishery and the marketing of haddock products, both domestic and foreign. Included are a brief analysis of the trends in the 1948-59 period and all the important developments that affected the fishery and the marketing of this species. Also included are statistical tables giving data on landings and ex-vessel prices, domestic fillet production, imports, cold-storage holdings, and wholesale and retail prices. Most data are for 1955-59, with some for previous years.

New York City's Wholesale Fishery Trade--Monthly Summary for October 1960, 18 pp. (Market News Service, 155 John St., New York 38, N. Y.) Includes summaries and analyses of receipts and prices on wholesale Fulton Fish Market, imports entered at New York City, primary wholesaler prices for frozen products, and marketing trends; for the month indicated.

(Seattle) Washington, Oregon, and Alaska Receipts and Landings of Fishery Products for Selected Areas and Fisheries, Monthly Summary, October 1960; November 1960; 6 pp. each. (Market News Service, U.S. Fish and Wildlife Service, Pier 42 South, Seattle 4, Wash.) Includes landings and local receipts, with ex-vessel and wholesale prices in some instances, as reported by Seattle and Astoria (Oreg.) wholesale dealers; also Northwest Pacific halibut landings; and Washington shrimp landings; for the months indicated.

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

Bibliography of Publications of the Branch of Technology, Bureau of Commercial Fisheries, by Years and Authors, 1955-1959 Inclusive, by F. Bruce Sanford and Helen E. Plastino, Commercial Fisheries TL 30, 37 pp., August 1960. Includes listings of about 350 publications written by Branch of Technology personnel. Included are works published by the Bureau of Commercial Fisheries and the Department of the Interior, as well as those published by trade and professional journals.

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

Abundance and Life History of Shad, St. Johns River, Florida, by Charles H. Walburg, Fishery Bulletin 177 (from Fishery Bulletin of the Fish and Wildlife Service, vol. 60), 19 pp., illus., printed, 20 cents, 1960.

Alaska Commercial Salmon Catch Statistics, 1951-1959, by Robert R. Simpson, Statistical Digest 50, 117 pp., processed, 60 cents, 1960. Contains Alaska commercial salmon catch statistics, in numbers of fish, by species, for the years 1951 through 1959. The data are presented in summary and in detailed form, showing total catch and catch by type of gear for all Alaska, for Alaska's three principal regions, for the management districts in each region, for the fishing districts in each management district, and for the statistical areas in each fishing district. Collection and tabulation of data on the fisheries of Alaska were the responsibility of the U. S. Bureau of Commercial Fisheries until the State assumed management of the fisheries on January 1, 1960. The statistical unit handling this type of data was formally transferred to the Alaska Department of Fish and Game in June 1960.

Alaska Fishery and Fur-Seal Industries, 1956, by Seton H. Thompson, Statistical Digest No. 45, 92 pp., illus., printed, 40 cents, 1960. Detailed reports and statistical tables on the operation and yield of the fishery industries are presented, with additional data on related subjects.

Fecundity of Red Salmon at Brooks and Karluk Lakes, Alaska, by Wilbur L. Hartman and Charles Y. Conkle, Fishery Bulletin 180 (from Fishery Bulletin of the Fish and Wildlife Service, vol. 61), 12 pp., illus., printed, 15 cents, 1960.

Natural History of the Sandbar Shark, EULAMIA MILBERTI, by Stewart Springer, Fishery Bulletin 178 (from Fishery Bulletin of the Fish and Wildlife Service, vol. 61), 42 pp., illus., printed, 35 cents, 1960.

Sonic Tracking of Adult Salmon at Bonneville Dam, 1957, by James H. Johnson, Fishery Bulletin 176 (from Fishery Bulletin of the Fish and Wildlife Service, vol. 60), 19 pp., illus., printed, 20 cents, 1960.

Synopsis of Strigeoidea (Trematoda) of Fishes and Their Life Cycles, by Glenn L. Hoffman, Fishery Bulletin 175 (from Fishery Bulletin of the Fish and Wildlife Service, vol. 60), 35 pp., illus., printed, 30 cents, 1960.

## 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.

### ALGAE:

Marine Red Algae of Pacific Mexico, Part 3-Cryptoneemiales, Corallinaceae subf. Melobesioideae, by E. Yale Dawson, article, Pacific Naturalist (Contributions from the Beaudette Foundation for Biological Research), vol. 2, no. 1, October 24, 1960, 125 pp., illus., printed. Beaudette Foundation for Biological Research, Box 482, R.F.D. 1, Solvang, Calif.

### ALMANAC:

The American Ephemeris and Nautical Almanac for the Year 1962, 514 pp., printed, \$4. U. S. Naval Observatory, Nautical Almanac Office, Washington, D. C. (For sale by Superintendent of Documents, Government Printing Office, Washington 25, D. C.)

### ANADROMOUS FISHES:

Vernal and Hialmal Races among Anadromous Fishes, by L. S. Berg, FRBC Trans. Ser. #206, 23 pp., illus., printed. (Reprinted from Journal of the Fisheries Research Board of Canada, vol. 16, no. 4, 1959, pp. 515-537.) Queen's Printer and Controller of Stationery, Ottawa, Canada, 1959.

### ANCHOVY:

"Experimental Study on Utilization of Food by Young Anchovy Engraulis japonicus temminch et schlegel," by M. Takahashi and M. A. Hatanaka, article, The Tohoku Journal of Agricultural Research, vol. II, no. 2, July 1960, pp. 161-170, illus., printed. Library, Faculty of Agriculture, Tohoku University, Sendai, Japan.

### AQUATIC PLANTS:

Aquatic Plants of the Pacific Northwest with Vegetative Keys, by Albert N. Steward, La Rea J. Dennis, and Helen M. Gilkey, 184 pp., printed, \$2.50. Oregon State College, Corvallis, Oreg. Area studied includes Oregon, Washington, British Columbia, and Alaska.

### AUSTRALIA:

Fourth Annual Report of the Operation of the Fishing Industry Act 1956 During the Year Ended 30th June 1960, 4 pp., processed. Department of Primary Industry, Canberra, Australia. This report outlines the operations during the year ending June 30, 1960, of the Fisheries Development Trust Account, established for the purpose of financing activities designed to foster the development of the Australian fishing industry. Covers a shrimp trawling survey; exploratory trawling in the Great Australian Bight; and investigations of the barracuda and spiny lobster industries.

### BERING SEA:

"The Japanese and Russian Trawl Fishery in the Bering Sea," by Dayton L. Alverson, article, Western Fisheries, vol. 60, April 1960, pp. 12-14, 30-31, printed. Western Fisheries, Roy Wrigley Publications, Ltd., 1104 Hornby St., Vancouver 1, B. C., Canada.

### BIBLIOGRAPHIES:

Sources of Information on Mollusks, SIL-148 rev., 16 pp., processed. Smithsonian Institution, U. S. National Museum, Division of Mollusks, Washington 25, D. C.

Suggested Publications on Fishes (Africa--Fresh-water and Marine), SIL-171, 6 pp., processed. Smithsonian Institution, U. S. National Museum, Division of Fishes, Washington 25, D. C.

Suggested Publications on Fishes (Asia--Fresh-water and Marine), SIL-176, 5 pp., processed. Smithsonian Institution, U. S. National Museum, Division of Fishes, Washington 25, D. C.

Suggested Publications on Fishes (Europe--Fresh-water and Marine), SIL-172, 5 pp., processed. Smithsonian Institution, U. S. National Museum, Division of Fishes, Washington 25, D. C.

### BYPRODUCTS:

Preservation of Fish and Fish Offal for Oil and Meal Manufacture, by G. A. Carpenter and June Olley, Torry Technical Paper No. 2 (a revised version of Food Investigation Technical Paper No. 6), 34 pp., illus., printed, 35 cents. British Information Services, 45 Rockefeller Plaza, New York 20, N. Y., 1960. Methods of preserving herring and white fish for meal and oil manufacture have been studied, with emphasis on sodium nitrite and formaldehyde as preservatives. Preservation should not be substituted for adequate processing, but rather should be used where material would otherwise be wasted, according to the authors. Formaldehyde and nitrite both react to a limited extent with fish protein to lower the biological value. Damage would be minimal with dipped whole fish but storage of minced material would not be satisfactory.

### CALIFORNIA:

California Fish and Game, vol. 46, no. 4, October 1960, pp. 379-520, illus., printed. Department of Fish and Game, 722 Capitol Ave., Sacramento 14, Calif. Includes, among others, the following articles: "Review of the Abalone of California," by Keith W. Cox; "The Use of Anesthetics for the Handling and the Transport of Fishes," by William N. McFarland; and "Keys to the Freshwater and Anadromous Fishes of California," by J. B. Kimsey and Leonard O. Fish.

### CANADA:

Annual Report of the Department of Natural Resources of the Province of Saskatchewan for the Fiscal Year Ended March 31, 1960, 243 pp., illus., printed. Department of Natural Resources, Government Administration Bldg., Regina, Saskatchewan, Canada, 1960. A compilation of reports of the branches of the Saskatchewan Department of Natural Resources, including a 23-page report of the Fisheries Branch. The fisheries report covers activities in management, research, fish culture, and administration of commercial and sport fisheries. Statistical data are also given on fish production and value.

Fisheries Statistics of Canada, 1958 (Canada Summary), 33 pp. (tables), printed in English and French, 75 Canadian cents. Dominion Bureau of Statistics, Ottawa, Canada, November 1960. (For sale by

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Queen's Printer and Controller of Stationery, Ottawa, Canada.) This report provides a summary of the Canadian fisheries and the information is arranged to show separately the three main fisheries areas--Atlantic, Pacific, and Inland. It includes data on the quantity and value of the catch of selected fishery products for Canada; production of frozen, smoked, and pickled fish, canned fish and shellfish, and fishery byproducts; landings by trawlers and draggers; capital equipment in the primary fisheries operations; and employment in fish processing establishments; all for 1957-58. Also contains data on the quantity and value of exports and imports of fishery products; quantity and value of Canada's fishery products and byproducts, by provinces; Canada's canned lobster pack, by provinces; and salmon pack of British Columbia, by species; all for 1949-58. Fishing bounties paid to vessels and boats in 1958-59 are also tabulated.

#### CANNED TUNA:

"Identification of the Pink Pigment of Canned Tuna," by W. Duane Brown and A. L. Tappel, article, Food Research, vol. 22, March-April 1957, pp. 214-221, printed. Food Research, The Garrard Press, 510 North Hickory St., Champaign, Ill.

#### CHEMICAL COMPOSITION:

"Technical and Chemical Characteristics of the Atlantic Herring as Industrial Raw Material," by N. N. Rulev and A. P. Makarova, article, Rybnoe Khoziaistvo, vol. 35, no. 3, 1959, pp. 51-54, printed in Russian. Rybnoe Khoziaistvo, VNIRO Glavniproekta, pri Gosplanie SSSR, Moscow, U.S.S.R.

"Technical and Chemical Characteristics of Sardine Caught off the West African Coast," by N. N. Rulev, article, Rybnoe Khoziaistvo, vol. 35, no. 6, 1959, pp. 62-68, illus., printed in Russian. Rybnoe Khoziaistvo, VNIRO Glavniproekta, pri Gosplanie SSSR, Moscow, U.S.S.R.

#### CONTAINERS:

"Aluminum in Packaging," article, Norwegian Fishing and Maritime News (Norwegian Fishing News), vol. 7, no. 3, 1960, pp. 35-37, illus., printed. Norwegian Fishing and Maritime News, P. O. Box 740, Slottsgt. 3, Bergen, Norway. Gives some interesting points from a paper on aluminum cans for processed foods presented at a British symposium on aluminum in packaging. Outlines the history of the use of this metal for cans, the various methods of manufacture, and details of the design of this type of container.

#### CRUSTACEA:

La Peche Maritime, vol. 39, no. 990, September 1960, illus., printed in French. Contains the following articles on crustaceans: "La Peche aux Crustaces a Camaret" (The Camaret Fishery for Crustaceans), by Penne; "La Peche Langoustiere a Douarnanez" (The Spiny-Lobster Fishery at Douarnanez), by Bolopion; "Audierne, Port de Peche aux Crustaces" (Audierne, Port for the Crustaceans Fishery), by J. Couespel du Mesnil; and "Quelques Donnees sur les Possibilites de Peche de la Crevette a Madagascar" (Some Data on Possibilities of a Shrimp Fishery in Madagascar), by A. Crosnier and D. Charbonnier.

A Useful Method for Collecting Crustacea, by Raymond B. Manning, Contribution No. 272, 1 p., printed. (Reprinted from Crustaceana, vol. 1, part 4, 1960.) The Marine Laboratory, University of Miami, Virginia Key, Miami 49, Fla.

#### DECOMPOSITION:

"Chemical Indices of Decomposition in Ocean Perch," by Fred Hillig and others, article, Journal of the Association of Official Agricultural Chemists, vol. 43, May 1960, pp. 433-438, printed. Association of Official Agricultural Chemists, P. O. Box 540, Benjamin Franklin Station, Washington, D. C.

#### DELAWARE RIVER:

A Biological Evaluation of the Delaware River Estuary, by Carl N. Shuster, Jr., Information Series, Publication No. 3, 82 pp., illus., processed, \$1.25, limited edition. University of Delaware, Marine Laboratories, Lewes, Del., September 1959.

#### ELECTRICAL FISHING:

"Comparative Fishing with Electrical Gear" and "On the Value of Electrical Test Fishing," by H.W. Hattop, articles, Deutsche Fischerei-Zeitung, vol. 6, no. 1, 1959, pp. 18-28 and vol. 6, no. 2, 1959, pp. 47-49, respectively, printed in German. Deutsche Fischerei-Zeitung, Neumann Verlag, Radebeul/Dresden, East Germany.

#### FACTORYSHIPS:

"Factoryships--Development Trends of Sea Fisheries," by T. Kirstein, article, Gospodarka Rybna, vol. 2, no. 113, 1959, pp. 10-14, illus., printed in Polish. Gospodarka Rybna, Panstwowe Wydawnictwo Rolnicze i Lesne, Al. Jerozolimskie 28, Warsaw, Poland.

"Multiple Mechanization in Processing Herring on Board Mother-Factoryships," by N. G. Terent'eva, article, Rybnoe Khoziaistvo, vol. 34, no. 11, 1958, pp. 50-57, illus., printed in Russian. Rybnoe Khoziaistvo, VNIRO Glavniproekta, pri Gosplanie SSSR, Moscow, U.S.S.R.

"9,300 TDW Herring Mothership," by J. Staszewski and S. Paszkowski, article, Budownictwo Okretowe, vol. 4, no. 3, pp. 62-68, illus., printed in Polish. Budownictwo Okretowe, Wydawnictwa Czasopism Technicznych NOT, Czackiego 3/5, Warsaw, Poland.

#### FATTY ACIDS:

"Essential Fatty Acids Properties of Tuna, Herring, and Menhaden Oils," by O. S. Privett and others, article, Journal of Nutrition, vol. 71, May 1960, pp. 66-69, printed. Journal of Nutrition, The Wistar Institute of Anatomy & Biology, 36th St. at Spruce, Philadelphia 4, Pa.

#### FISH FARMING:

"Brackish Water Fish Farming," by J. M. Thomson, article, Fisheries Newsletter, vol. 19, no. 11, November 1960, pp. 17-20, illus., printed. Commonwealth Director of Fisheries, Department of Primary Industry, Canberra, Australia.

Trout Farming, by David B. Greenberg, 206 pp., illus., printed, \$12. Chilton Company, Book Division, Philadelphia 39, Pa. Presents, in highly readable form,

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the results of years of study and personal observation of commercial and Government hatcheries in Europe, Canada, Mexico, and the United States. This textbook on trout farming is lavishly illustrated with unusual photographs and action shots from all over the world. It is a "must" for present and prospective trout farmers, and it is a valuable text for students of fishery biology and for hatchery personnel. Relevant sections have been approved by commercial trout ranchers and Government hatchery specialists. The author's first-hand descriptions range from the world's largest trout farms in the Pacific Northwest to "fish-out" operations for anglers in the East. Other chapters include: history of artificial propagation; future of the trout industry; trout in nature; something of the anatomy, physiology, and embryology of a trout; brood trout and stripping; the incubation of trout eggs; in and about the hatchery building; ponds and raceways; feeding; sorting, grading, and transporting; your own trout pond; predators; trout diseases; going trout farms and their marketing methods.

#### FISH MEAL:

"New Technological Device for Producing Semi-Processed Fish Meal from Fat Fish Offals," by J. A. Kondakov, article, *Rybnoe Khoziaistvo*, vol. 35, no. 1, 1959, pp. 63-68, illus., printed in Russian. *Rybnoe Khoziaistvo*, VNIRO Glavniproekta, pri Gosplanie SSSR, Moscow, U.S.S.R.

"Possibilities of the Utilization of Residues from the Manufacture of Fish Meal," by M. Ceamis, article, *Ind. Usoara*, vol. 5, 1958, pp. 125-126, printed in Rumanian. *Ind. Usoara*, Bucharest, Rumania.

#### FISH MUSCLE:

"Nitrogen Extractive Substances of Fish Muscle," by S. E. Severin and P. L. Vul'fson, article, *Biochemistry* (U.S.S.R.), vol. 24, November-December 1959, pp. 923-929, printed. *Biochemistry* (Publication of the Academy of Sciences of the U.S.S.R.), Consultants Bureau, Inc., 227 W. 17th St., New York 11, N. Y.

#### FISH OILS:

"Effects of Diet on Fish Oil Toxicity in the Rat," by Benjamin H. Ershoff, article, *Journal of Nutrition*, vol. 71, May 1960, pp. 45-53, printed. *Journal of Nutrition*, The Wistar Institute of Anatomy & Biology, 36th St. at Spruce, Philadelphia 4, Pa.

En Nyvurdering av Medisintranens Betydning i Folkeernaeringen--Fett-og Hjertekarsykdommer (A New Outlook on Medicine--Fish-Liver Oil for Human Consumption), by Ragnar Nicolaysen, 16 pp., printed in Norwegian. A/S John Griegs Boktrykkeri, Fiskeridirektoratets Smaskrifter Nr. 2, Bergen, Norway, 1960.

"Toxicity of Fish Oil. III," by Noboru Matsuo, article, *Seikagaku*, vol. 29, 1957-58, pp. 769-772, printed. Tokyo Medical College, Tokyo, Japan.

"Use of Fish Oil Fractions in Reducing Elevated Blood-Cholesterol Levels," by Steele Culbertson, article, *Feedstuffs*, vol. 32, May 14, 1960, p. 66, printed. *Feedstuffs*, Miller Publishing Co., 118 South 6th St., Minneapolis 2, Minn.

#### FISH SPECIMENS:

Directions for Collecting, Preserving, and Shipping Fishes to the U. S. National Museum, 7 pp., proc-

essed. Smithsonian Institution, U. S. National Museum, Washington 25, D. C. Complete instructions are given for collecting specimens of fish--what to collect and methods of collecting. Instructions are also given for preserving fish specimens and preparing them for shipment to the U. S. National Museum.

#### FISHING GROUNDS:

"Fish Resources of the Davis Straits," by L. N. Pechenik, article, *Rybnoe Khoziaistvo*, vol. 35, no. 5, 1959, pp. 9-17, illus., printed in Russian. *Rybnoe Khoziaistvo*, VNIRO Glavniproekta, pri Gosplanie SSSR Moscow, U.S.S.R.

#### FISHING NETS:

"The Manufacture of Fishing Nets of Cotton, Nylon, and Other Synthetic Fibers and Technical Aspects of Their Use," by A. Stagnaro, article, *Bollettino di Pesca*, vol. 10, no. 3/4, 1958, pp. 1-5, printed in Italian. *Bollettino di Pesca*, Laboratorio Centrale di Idrobiologia, Piazza Borghese, 91 Rome, Italy.

#### FLOUNDER:

"Salinity as a Factor in the Control of Growth and Survival of Postlarvae of the Southern Flounder, *Paralichthys lethostigma*," by Earl E. Deubler, Jr., article, *Bulletin of Marine Science of the Gulf and Caribbean*, vol. 10, no. 3, September 1960, pp. 338-345, illus., printed. The Marine Laboratory, University of Miami, #1 Rickenbacker Causeway, Miami 49, Fla.

#### FOOD AND AGRICULTURE ORGANIZATION:

Catalogue of the Names of Fishes of Commercial Importance in the Mediterranean, 312 pp., illus., processed in French and English. Food and Agriculture Organization of the United Nations, General Fisheries Council for the Mediterranean, Rome, Italy, 1960. The catalogue contains the common names of the fish of commercial importance in the Mediterranean and some imported species which are often available on Mediterranean markets. The catalogue contains for each language used in the Mediterranean one name (and only one) for each fish of commercial importance. It also includes drawing-sketches showing the main characteristics of each species of fish.

The Economic Role of Middlemen and Co-operatives in Indo-Pacific Fisheries, vol. 1, edited by E. F. Szczepanik, 135 pp., illus., printed. 7s. 6d. (US\$1.50). Food and Agriculture Organization of the United Nations, Rome, Italy, 1960. (Sold in United States by Columbia University Press, International Documents Service, 2960 Broadway, New York 27, N. Y.) Includes Part I, "Economic Survey of Fishing Industry in Thana District, Bombay State, India," by M. B. Desai and P. R. Baichwal; and Part II, "Economic Survey of Fishing Industry in Hong Kong," by E. F. Szczepanik. The two studies contained in this volume, one on some fishing villages in the Thana District of Bombay State in India, and the other on the experience of fishermen in Hong Kong, are the first two contributions to a program of research on the economic role of middlemen and cooperatives in Indo-Pacific fisheries, initiated by FAO in 1956 in collaboration with various Asian universities. Although the Bombay and the Hong Kong studies form two separate parts of this volume, they have been coordinated in such a way as to make possible direct comparison of the respective roles performed by the middlemen, the cooperative societies, and the Governments. Both studies make clear the advantages of

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of mechanization which tends to bring about a four-fold increase in output. By encouraging and facilitating mechanization, the cooperative movement can have an important, though indirect, effect on productive returns. Both studies, Indian and Hong Kong, provide illuminating analysis of investment, costs, revenue and profits, as well as a great deal of first-hand sociological information on the structure of the two fishing communities.

Expert Meeting on Fishery Statistics in the North Atlantic Area, September 22-30, 1959, 67 pp., processed. Food and Agriculture Organization of the United Nations, Rome, Italy, February 4, 1960. Includes proceedings, three agenda items discussed, and papers presented at an expert meeting on fishery statistics held in Edinburgh, Scotland. The agenda items consisted of: the requirements for statistical data by economists, scientists, technologists, and others; difficulties in meeting high priority requirements; and the solution of problems and further improvement in fishery statistics. Also included in the report are discussions by working parties on economic statistics; fish discarded at sea; statistics of fishing effort; FAO fishery statistical classification of aquatic animals and plants; FAO's standard international fishery commodity classification; and related topics.

A Report on the World Scientific Meeting on the Biology of Sardines and Related Species (Rome, September 14-21, 1959), 92 pp., processed. Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy. The objectives of the meeting were to appraise the status of knowledge on certain major aspects of the biology of sardines and related species, to examine and appraise the methods in research being used in the study of these aspects, and to indicate the lines along which national and international action might be developed, with a view to obtaining improvement in the methods and development of the research programs. The report states that "Since various species of sardines are found in most of the oceans of the world, the complexities of fisheries research methods require more cooperation and coordination between the nations of the world fishing sardines. Even though the differences in behavior and environment make it difficult to examine geographically widely separate groups of sardines, there are many problems of the research program which make cooperation on an international scale essential or highly desirable. Where closely related stocks are being studied by different countries, cooperation may be extended beyond methodology and might even be applied to such projects as understanding the environment in a spawning area or adjacent spawning areas, etc. It is quite apparent that widespread changes in hydrographic conditions occur at times. These have a profound effect on fishes. In order to develop hypotheses as to the effect of these environmental factors on abundance and accessibility, a method must be found for the free and rapid exchange of information and data." A list of the papers prepared and distributed during the meeting is presented.

The State of Food and Agriculture 1960, 188 pp., illus., printed, \$2. Food and Agriculture Organization of the United Nations, Rome, Italy, 1960. (For sale by the International Documents Service, 2960 Broadway, New York 27, N. Y.) Includes a section on fishery production and one on fishery policies.

Trilingual Dictionary of Fisheries Technological Terms - Curing, 93 pp., printed in English, French, and Spanish, \$1. Food and Agriculture Organization of the United Nations, Rome, Italy, 1960. (For sale by Columbia University Press, International Documents Service, 2960 Broadway, New York 27, N. Y.) This handbook is presented in the three official languages of FAO. The terms are arranged in alphabetical order according to the English language. Each term in English has been given an identification number: this consists of the letter of the alphabet with which the term begins, followed by a number which corresponds to the numerical position of the term under that particular letter. Terms and concepts are explained as concisely as possible, primarily to assist in the selection of the appropriate equivalents in any language.

Yearbook of Fishery Statistics, 1958-59 (International Trade), vol. X, 407 pp., processed in English, French, and Spanish, \$3.50. Food and Agriculture Organization of the United Nations, Rome, Italy, 1960. (Sold in United States by Columbia University Press, International Documents Service, 2960 Broadway, New York 27, N. Y.) This publication brings up to date the statistics relating to international trade in fishery products. It contains the same series of tables as the 1958 edition of the Yearbook; but coverage has been extended to include four new countries. The tables in this volume are divided into 7 groups of fishery commodities as defined in the FAO Fishery Statistical Classification. These groups are: fish, fresh, chilled, or frozen; fish, dried salted, or smoked; crustaceans and molluscs, fresh, dried, salted, etc.; fish, crustaceans, and molluscs, canned; fish, crustacean and mollusc preparations, not in airtight containers; aquatic animal oils and fats, crude or refined; and aquatic animal meals and similar products. The sections of the Yearbook containing these groups are preceded by 4 general summary tables and followed by notes and a table of conversion factors. Data are given in most tables for 1948 and for 1953 through 1959.

#### FOOD PREFERENCES:

Food Preferences of Men in the U. S. Armed Forces, by David R. Peñyam and others, 172 pp., illus., processed. Quartermaster Food and Container Institute for the Armed Forces, 1819 W. Pershing Rd., Chicago 9, Ill., January 1960. Part of a series of food preference surveys, whose history and findings are the substance of the present report. When the surveys were initiated the objective was the practical one of obtaining information on food acceptance that would be useful in Service menu planning, particularly in the identification of suspected problem foods. This was accomplished by brief interim reports on each survey. But as the data accumulated it became evident that they had greater possibilities. It was then that the more extensive analyses, reported in this issue, were undertaken in order to exploit further this information, to determine its value and its limits in the statistical sense, and to seek out certain problems and approaches that might hold promise for future research.

#### FRANCE:

"La Congelation du Poisson et le Marche Francais" (The Fish-Freezing Industry and the French Market), by Orion, article, La Peche Maritime, vol. 39, no.

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991, October 1960, pp. 615-617, illus., printed in French. La Peche Maritime, 190, Boulevard Haussmann, Paris, France.

Enquete Generale sur les Positions Statistiques des Usines Francaises de Conserves de Poissons des Cotes de la Manche et de l'Ocean au Cours de l'Annee 1959 (General Investigation of the Statistical Data from French Fish-Canning Plants on the English Channel and Atlantic Coasts during 1959), 7 pp., printed in French. Federation Nationale des Syndicats Francais de Conserveurs des Produits de la Mer, Paris, France.

"Observations sur le Hareng du Sud de la Mer du Nord et de la Manche Orientale, Campagne d'Hiver 1959/60" (Herring Observations in the Southern North Sea and Eastern English Channel, Winter Season 1959/60), by J. Ancellin, article, France Peche, vol. 5, no. 44, October 1960, pp. 57-59, 64, printed in French. France Peche, Tour Sud-Est, Rue de Guemene, Lorient, France.

"Le XVII<sup>e</sup> Congres des Peches et Industries Maritimes s'Est Tenu a Lorient, du 4 au 9 Octobre" (The 17th Congress of Fisheries and Marine Industries was Held at Lorient, October 4-9), article, La Peche Maritime, vol. 39, no. 991, October 1960, pp. 585-604, illus., printed in French. La Peche Maritime, 190, Boulevard Haussmann, Paris, France.

#### FUR SEALS:

"The Northern Fur Seals," by Ford Wilke, article, Alaska Sportsman, vol. 26, no. 12, December 1960, pp. 16-18, illus., printed. Alaska Sportsman, Alaska-Northwest Publishing Co., Juneau, Alaska. Discusses briefly the northern fur seals, their breeding grounds and migratory habits.

#### GEAR:

"The Mechanization of Fresh-Water Fishery by the End of 1958," by G. Schmidt, article, Deutsche Fischerei-Zeitung, vol. 6, no. 5, 1959, pp. 140-143, printed in German. Deutsche Fischerei-Zeitung, Neumann Verlag, Radebeul/Dresden, East Germany.

#### GENERAL:

Journal du Conseil, vol. 25, no. 3, August 1960, pp. 235-337, illus., printed. Conseil Permanent International pour l'Exploration de la Mer, Charlottenlund Slot, Denmark. Contains, among others, articles on: "The Effect of Three Different Types of Growth Curves on Estimates of Larval Fish Survival," by David A. Farris; "Fish Schooling: A Possible Factor in Reducing Predation," by Vernon E. Brock and Robert H. Riffenburgh; and "Mesh Selection Factors in the Trawl Fishery off Tropical West Africa," by Alan R. Longhurst.

#### GENERAL AGREEMENT ON TARIFFS AND TRADE:

Negotiations Under the Trade Agreements Act of 1934 as Amended and Extended (Supplementary Notice of U. S. Intention to Negotiate; Supplementary List of Products to be Considered for Possible U. S. Concessions; Notice of Supplementary Public Hearings), Department of State Publication 7105, 24 pp., processed, 15 cents. Interdepartmental Trade Agreements Organization, Washington, D. C., November 1960. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.)

#### GERMAN FEDERAL REPUBLIC:

Jahresbericht uber die Deutsche Fischwirtschaft, 1959 (Annual Report on German Fisheries, 1959), 294 pp., illus., printed in German with English summaries, DM 25 (about US\$6). Verlag Gebr. Mann, Hauptstrasse 26, Berlin-Schoeneberg, Germany, October 1960. A review covering all phases of the German fisheries in 1959. Each chapter is followed by a summary in English and all statistical tabulations have English subcaptions. Issued by the Ministry of Food, Agriculture, and Forestry, which includes the Fisheries Directorate. Part I contains information on fishery policy in 1959, the second United Nations Conference on the Law of the Sea, landings, the fishing fleet, foreign trade in fish and shellfish, and consumption of fishery products. Part II includes information on cruises of the fishery protection vessels and fishery research vessel, the vocational seamen's association, the work of the German Scientific Commission for the Exploration of the Sea, and fishery research. Part III presents data on the German deep-sea fishery in 1959, the lugger herring fishery, cutter deep-sea and coastal fisheries, fresh-water fisheries, the fish processing industry, publicity campaign for sea-fish in 1959/60, and promotion of fish marketing. Part IV gives data on foreign fisheries and whaling.

#### GERMANY:

"Die Binnenfischerei in Schleswig-Holstein" (The Inland Fisheries of Schleswig-Holstein), by A. Pape, article, Statistische Monatshefte Schleswig-Holstein, vol. 9, no. 10, October 1957, pp. 309-318, printed in German. Statistischen Landesamt Schleswig-Holstein, Kiel, Germany.

"Mittlere Reiseertrage Deutscher Fischdampfer 1887-1955 und Berechnung Vergleichbarer Einheitsertrage" (Average Trip Production of German Large Trawlers, 1887-1955, and Calculation of Comparable Unit Output), by J. Lundbeck, Mitteilungen aus dem Institut fur Seefischerei, no. 10, 130 pp., printed in German. Institut fur Seefischerei, Hamburg, Germany, 1960.

#### GLASS FLOATS:

"Hydrodynamic Studies on the Resistance of Spherical Glass Floats for Fishing Net. I--Comparison of the Drag Coefficients of the Floats having Various Coverings and Diameters with that of the Sphere," by Takeo Taniguchi, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 23, no. 11, 1958, pp. 696-699, printed in Japanese with English abstract. Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori 6-chome, Minato-ku, Tokyo, Japan.

#### GUTTING MACHINE:

"Machine for Gutting Small Fish," by V. P. Chivilenko and I. I. Vedernikov, article, Rybnoe Khoziaistvo, vol. 34, 1958; pp. 62-64, printed in Russian. (Translation published for the National Science Foundation and the Department of the Interior, Washington, D. C., by the Israel Program for Scientific Translations PST Cat. No. 68, OTS 60-21096). Rybnoe Khoziaistvo, VNIRO Glavniproekta, pri Gosplanie SSSR, Moscow, U.S.S.R.

#### HALIBUT:

"The Halibut," article, Sportsmen's Life, vol. 11, no. 12, December 1960, pp. 18-20, illus., printed. Sportsmen's Life, Essy Publishing Company, Inc., Post Office Building, 20 Whitehouse Ave., Roosevelt, N. Y.



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Easy-to-read description of the "king" of the flatfish. The classification, geographic and vertical ranges, identification details, color pattern, size, habits, enemies, spawning, growth and commercial and sport-fishing importance of the halibut are discussed.

Utilization of Pacific Halibut Stocks: Yield per Recruitment, Report No. 28, 52 pp., illus., processed. International Pacific Halibut Commission, Fisheries, Hall No. 2, University of Washington, Seattle 5, Wash., 1960.

#### HONDURAS:

Import Tariff System of Honduras, WTIS, Part 2, Operations Report no. 60-52, 2 pp., printed, 10 cents. Bureau of Foreign Commerce, U. S. Department of Commerce, Washington, D. C. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.)

#### INDUSTRIAL MANAGEMENT:

Keeping Overhead Costs in Line, by George J. Tasso, Management Aids for Small Manufacturers No. 118, 4 pp., processed. Small Business Administration, Washington 25, D. C., November 1960.

#### INTERNATIONAL COMMISSIONS:

International Commission for the Northwest Atlantic Fisheries, Proceedings of the Joint Scientific Meeting on Fishing Effort, the Effect of Fishing on Resources, and the Selectivity of Fishing Gear, May 27-June 3, 1957, vol. I, 45 pp., printed. International Commission for the Northwest Atlantic Fisheries, Halifax, N. S., Canada, 1960.

International Commission for the Northwest Atlantic Fisheries, Statistical Bulletin for the Year 1958, vol. 8, 69 pp., illus., printed. International Commission for the Northwest Atlantic Fisheries, Halifax, N. S., Canada, 1960. This bulletin is divided into two parts: Part 1 summarizes statistics on fishery landings in the Convention Area 1952-1958; and Part 2 includes statistics dealing with the fisheries in 1958. The presentation of the basic statistical data again has been designed to place emphasis on area and month of fishing. Contains a summary of all the landings by species group, country, and statistical subdivision; landings of cod, haddock, ocean perch, halibut, and flounder for each type of gear; and landings of each species by subarea.

#### IRELAND:

Report on the Sea and Inland Fisheries for the Year 1958 (Incorporating Statistics of the Capture of Salmon, Sea Trout and Eels, and Certain Scientific Papers Relating to Fisheries), 86 pp., illus., printed, 4s.6d. (about 63 U. S. cents). Government Publications Sale Office, G. P. O. Arcade, Dublin, Ireland. This report covers the activities of the Fisheries Division of the Department of Lands, and includes information and statistics on the quantity and value of Ireland's sea and inland fish and shellfish for 1958, and related data. Also includes, among others, sections on salmon of the River Corrib in 1956-58; the Irish herring fishery, 1958/59; and lobster storage in Ireland.

The Seventh Annual Report and Accounts of the Sea Fisheries Board for the Year Ended March 31, 1959,

24 pp., illus., printed in Irish and English. An Bord Iascaigh Mhara, 67 Lower Mount St., Dublin, Ireland.

#### IRRADIATION PRESERVATION:

"The Preservation of Fish with Ionizing Radiation: Bacterial Studies," by Donald P. MacLean and Camille Welander, article, Food Technology, vol. 14, May 1960, pp. 251-254, printed. Food Technology, The Garrard Press, 510 North Hickory, Champaign, Ill.

Radiation Technology in Food, Agriculture and Biology, by Norman W. Desrosier and Henry M. Rosenstock, 425 pp., printed, \$12.50. AVI Publishing Co., Inc., Box 388, Westport, Conn., 1960. Covers the effects of radiation on single cells, plants, animals, and food, and in promoting useful chemical reactions. The latest commercial equipment, measurement and control of dosage, safety measures, and detailed cost studies are also discussed.

#### ISRAEL:

Fishermen's Bulletin, vol. 3, no. 5, September 1960, 36 pp., illus., printed in Hebrew with English abstracts. Fishermen's Bulletin, P. O. B. 699, Haifa, Israel. Includes, among others, these articles: "Drawings of Boats in Geometric Style (I)," by M. Sas; "Fish Conservation and Related Economic Problems (II)," by E. Gottlieb; "Mugil Species in the Rivers of Israel," by L. Bograd Zismann; and "The Boats Tell Stories," by D. Shmida.

#### JAPAN:

Collected Reprints, 1959 (from the Tokai Regional Fisheries Research Laboratory), 159 pp., illus., printed in Japanese with English summaries. Tokai Regional Fisheries Research Laboratory, Tsukishima, Chuo-ku, Tokyo, Japan. Includes, among others, the following articles: "Experimental Fishing Test on the Efficiency of Double Gill Net," by M. Nomura; "Studies on the Viscosity of Fish Actomyosins. I--Some Fundamental Problems on the Viscosity of Actomyosin. II--Viscosity Change of Carp Actomyosin Solution on Storage," by M. Migita and T. Suzuki; "Influence of Death Conditions Upon Muscle Proteins. I--Composition of Myosins from Carps Killed Instantly and in Anguish," by M. Migita and S. Otake; "Studies on the Economical Manufacture of Vitamin A Concentrate from Fish Liver Oil. VIII--Chromatographical Separation of Vitamin Concentrates," by Y. Shimma and M. Tanaka; "Studies on the Economical Manufacture of Vitamin A Concentrate from Fish Liver Oil. IX--Purification of Vitamin A Concentrate with Methanol. X--Absorption by Weakened Acid Clay," by H. Higashi and others; "Riboflavin Contents in the Liver of Fish," by H. Higashi, S. Murayama, and K. Tabei; "Nutritive Elements in Salted Marine Appetizers," by H. Higashi, R. Kikuchi, and K. Tabei; and "Nutritive Value of Fin Whale Meat," by T. Kaneda, H. Sakai, and S. Ishii.

Japanese Fisheries: Their Development and Present Status, no. 37, 255 pp., illus., printed. Asis Kyokai, Akasaka-Shinsaka-machi, Minato-ku, Tokyo, Japan, 1960 (Revised). A comprehensive report on current development of the fishing industry in Japan. Contains sections contributed by various offices of the Japanese Fisheries Agency. Included is information on general aspects of fisheries in Japan, fishing gear and methods, vessels, inland fisheries, shallow-sea fish-

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eries, pearl culture, refrigeration in the fishing industry, canning of fishery products, and fish-jelly products. Also included are sections on marketing and transportation, foreign trade, educational and research institutions, Japanese fishery resources, economics of the fishing industry, cooperatives, public administration in the industry, and fisheries statistics. An appendix containing statistical tables of data on fishery production, vessels, distribution, consumption, prices and other topics is presented. Most of the data is for 1958, with some for 1959 and for previous years.

#### LAW OF THE SEA CONFERENCE:

2nd United Nations Conference on the Law of the Sea.  
United Nations, New York, N. Y.

A/CONF. 19/8., Summary Records of Plenary Meetings and Meetings of the Committee of the Whole, Annexes and Final Act, 176 pp., \$2.50, September 1960. International Documents Service, Columbia University Press, 2960 Broadway, New York 27, N.Y.

#### LIVER OIL:

"Shark-Liver Oil. I--Physicochemical Constant and Vitamin A Content of Liver Oil from Sharks of the Karachi Coast," by S. Masood Ali, S. Abdul Haq, and S. Mahdihassan, article, Pakistan Journal of Science and Industrial Research, vol. 1, 1958, pp. 70-72, printed. Pakistan Council of Science and Industrial Research, Karachi, Pakistan.

#### MARINE BENTHOS:

Marine Infaunal Benthos in Arctic North America, by Derek V. Ellis, Technical Paper No. 5, 56 pp., illus., printed. Arctic Institute of North America, 3485 University St., Montreal 2, Que., Canada, September 1960. Quantitative surveys of marine infaunal benthos were made in north Baffin Island during 1954 and 1955, in Greenland during 1956, and in Foxe Basin during 1957. The marine benthos can be arbitrarily separated into infauna, animals living on or in level (soft) sea bottom, and epifauna, animals living on or attached to hard surfaces. The distribution and standing crops of infaunal species are described, using the concept of marine level-bottom communities which is a particularly useful way of summarizing the infauna of arctic regions. The distribution of epifaunal species collected is shown in the appendix.

#### MARINE BIOLOGY:

Journal of the Marine Biological Association of the United Kingdom, vol. 39, no. 3, October 1960, pp. 417-767, illus., printed, \$11. Cambridge University Press, 32 E. 57th St., New York 22, N. Y. Includes, among many others, these articles: "The Effects of Salinity on the Developing Eggs and Larvae of the Herring," by F. G. T. Holliday and J. H. S. Blaxter; "The Effect of Extremes of Temperature on Herring Larvae," by J. H. S. Blaxter; and "Red Blood Values in the Plaice (Pleuronectes platessa L.)," by A. Preston.

#### MARINE FAUNA:

Creatures of the Sea, by William B. Gray, 209 pp., illus., printed, \$3.95. Wilfred Funk, Inc., 33 W. 46th St., New York 36, N. Y.

#### MARINE MICROBIOLOGY:

Cellulolytic Activity of Lignicolous Marine Ascomycetes and Deuteromycetes, by Samuel P. Meyers and Ernest S. Reynolds, Contribution No. 267, 12 pp., illus., printed. The Marine Laboratory, University of Miami, #1 Rickenbacker Causeway, Miami 49, Fla.

#### MARINE OILS:

"Acidolysis of Vegetable and Marine Oils with Phthalic Acids," by E. F. Carlston, article, Journal of the American Oil Chemists' Society, vol. 37, July 1960, pp. 366-371, printed. The American Oil Chemists' Society, 35 E. Wacker Dr., Chicago 1, Ill.

"Glycerolysis of Marine Oils and the Preparation of Acetylated Monoglycerides," by Edward H. Gruger, Jr., Donald C. Malins, and Erich J. Gauglitz, Jr., article, Journal of the American Oil Chemists' Society, vol. 37, May 1960, pp. 214-217, printed. The American Oil Chemists' Society, 35 E. Wacker Dr., Chicago 1, Ill.

#### MEETINGS AND PROCEEDINGS:

"Los Armadores del Occidente Europeo Examinan la Situacion de la Pesca--Importante Reunion en Hamburgo" (The Boatbuilders of Western Europe Examine the Position of the Fisheries--Important Meeting in Hamburg), by G. Lefebvre, article, Puntal--Revista Maritima y Pesquera, vol. 7, no. 79, October 1960, pp. 4-5, illus., printed in Spanish. Puntal--Revista Maritima y Pesquera, Apartado 316, Alicante, Spain.

#### NAVIGATION EQUIPMENT:

"Electronics for Fishing," by P. Ilardi, article, Bollettino di Pesca, vol. 10, no. 3/4, 1958, pp. 5-9, printed in Italian. Bollettino di Pesca, Laboratorio Centrale di Idrobiologia, Piazza Borghese, 91, Rome, Italy.

#### NETHERLANDS NEW GUINEA:

"Modern Craft for Papuan Fishermen," by Claude Belloni, article, South Pacific Bulletin, vol. 10, no. 4, October 1960, pp. 42-43, illus., printed. South Pacific Commission, Box 5254, G. P. O., Sydney, Australia.

#### NIGERIA:

Import Tariff System of Nigeria, WTIS, Part 2, Operations Report no. 60-48, 2 pp., printed, 10 cents. Bureau of Foreign Commerce, U. S. Department of Commerce, Washington, D. C. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.)

#### NORWAY:

"Norwegian Change-Over to New Fishing Methods--The BMV Sterntrawler," article, Norwegian Fishing and Maritime News (Norwegian Fishing News), vol. 1, no. 3, 1960, pp. 17, 19, 21, illus., printed. Norwegian Fishing and Maritime News, P. O. Box 740, Slottsgt. 3, Bergen, Norway.

"Rapport fra Sildeundersokelser ved Island 2/6-8/7 1960 med F/F G. O. Sars" (Report on Herring Investigation off Iceland June 2-July 8, 1960, with the G. O. Sars), by O. J. Ostvedt, article, Fiskets Gang, vol. 46, no. 44, November 3, 1960, pp. 611-616, illus., printed in Norwegian. Fiskets Gang, Postgiro nr. 691 81, Bergen, Norway.

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"Sammenliknende Undersøkelser Vintersildsesongen 1960 over Fangstresultatene ved Bruk av Snurpenoter av Kunstfibre (Nylon/Terylene) Kontra Snurpenoter av Bomull" (Comparison Research on 1960 Season Winter Herring Catch with Use of Synthetic Fiber Purse Seine Against Cotton Purse Seine), article, Fiskets Gang, vol. 46, no. 39, September 29, 1960, pp. 551-554, printed in Norwegian. Fiskets Gang, Postgiro nr. 691 81, Bergen, Norway.

Sett Kursen for Fiskerifagskolen (Establish Course for the Fishery School), Fiskeridirektoratets Smaskrifter Nr. 4, 22 pp., illus., printed in Norwegian. A/S John Griegs Boktrykkeri, Bergen, Norway, 1959.

"Stortralernes Fiske i 1959" (Large Trawler Fishery in 1959), by Sverre Mollestad, article, Fiskets Gang, vol. 46, no. 45, November 10, 1960, pp. 628-634, illus., printed in Norwegian. Fiskets Gang, Postgiro nr. 691 81, Bergen, Norway.

#### OCEANOGRAPHY:

Turbulent Diffusion in the Sea, by Richard Bourret and Saul Broida, Contribution No. 282, 13 pp., illus., printed. (Reprinted from Bulletin of Marine Science of the Gulf and Caribbean, vol. 10, no. 3, September 1960, pp. 354-366.) The Marine Laboratory, University of Miami, #1 Rickenbacker Causeway, Miami 49, Fla.

#### OYSTERS:

"Louisiana Oyster Crop," article, Louisiana Conservationist, vol. 13, no. 10, October 1960, pp. 2-4, illus., printed. Louisiana Wild Life and Fisheries Commission, 400 Royal St., New Orleans 16, La. Describes how a million barrels of oyster shells were planted by the Wild Life and Fisheries Commission in an effort to help the Louisiana oyster industry.

#### PARASITES:

A List of Parasites from Marine and Coastal Animals of Florida, by Robert F. Hutton and Franklin Sogandares-Bernal, Contribution No. 38, 6 pp., printed. (Reprinted from Transactions of the American Microscopical Society, vol. 79, no. 3, July 1960, pp. 287-292, printed. Florida State Board of Conservation, Marine Laboratory, Maritime Base, Bayboro Harbor, St. Petersburg, Fla.

#### PLANKTON:

Plankton of the Florida Current. Part VI--The Chaetognatha, by Harding B. Owre, Contribution No. 275, 68 pp., illus., printed. (Reprinted from Bulletin of Marine Science of the Gulf and Caribbean, vol. 10, no. 3, September 1960, pp. 255-322.) The Marine Laboratory, University of Miami, Virginia Key, Miami 49, Fla.

#### POULTRY FEED:

Effect of Origin, Processing and Storage on the Unidentified Growth Factor Activity of a Variety of Fish Meals, by T. W. Sullivan and others, 5 pp., illus., printed. (Reprinted from Poultry Science, vol. 39, no. 4, July 1960, pp. 1037-1041.) Poultry Science Association, Kansas State College, Manhattan, Kans.

#### PRESERVATION:

"Availability of Hinokitiol for the Preservation of Fish," by Eizaburo Noguchi and Joji Yamamoto, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 24, nos. 6 and 7, 1958, pp. 524-530, printed in Japanese with English abstract. Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori 6-chôme, Minato-ku, Tokyo, Japan.

#### REFRIGERATION:

"Changes in the Adenosinetriphosphatase Activity and Sulphydryl Groups of Cod Flesh During Frozen Storage," by J. J. Connell, article, Journal of the Science of Food and Agriculture, vol. 11, May 1960, pp. 245-249, printed. Journal of the Science of Food and Agriculture, Society of Chemical Industry, 14 Belgrave Square, London, S. W. 1, England.

#### SEA LIONS:

"California's Controversial Sea Lions," by Richard S. Croker, article, Outdoor California, vol. 21, nos. 9-10, September-October 1960, pp. 14-16, illus., printed. Department of Fish and Game, 722 Capitol Ave., Sacramento 14, Calif. The history of agitation to do away with sea lions in California dates back to 1899. In all cases, proposals for population reductions have been met by counterreaction. Recorded high point of the sea lion population in California was in the 1850's. From about 1860 to 1870 many thousands were killed and rendered for oil. An era of protection followed. By 1899 another move to reduce the herds had started. There was a protection move in 1909, followed in 1927 by a reverse trend. This article discusses developments in recent years--pressures of human population, sea lion predation, gear loss, the economics of sea lion population control, present law concerning sea lions, and the California herds.

#### SEAGRASS:

Observations on the Ecology and Distribution of the Florida Seagrasses, by Ronald C. Phillips, Professional Papers Series No. 2, 76 pp., illus., printed. Florida State Board of Conservation, Marine Laboratory, St. Petersburg, Fla., October 1960.

#### SHRIMP:

"Notes on the Artificial Cultivation of Fresh Water Shrimp," by Robert M. Ingle and Bonnie Eldred, article, West Indies Fisheries Bulletin, no. 4, July-August 1960, pp. 1-5, processed. Ministry of Natural Resources and Agriculture, Federal House, Port-of-Spain, Trinidad, W. I. (Also Contribution No. 39, Marine Laboratory, Florida State Board of Conservation, St. Petersburg, Fla.) Results of a study of the basic biology and ecology of fresh-water shrimp (Macrobrachium acanthurus and M. carcinus). In conclusion, the authors state that (1) biologically, fresh-water shrimp offer several advantages for artificial cultivation; and (2) economically, the species is an attractive one for artificial cultivation.

The Poole Prawn Pot, Laboratory Leaflet No. 10, 5 pp., illus., processed. Fisheries Laboratory, Ministry of Agriculture, Fisheries and Food, Lowestoft, England, 1956. Presents drawings and construction data

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on the Poole prawn (shrimp) pot. A number of different types of pot are used for catching prawns on England's south coast. Most of these and a few others were tested for their catching capabilities in large tanks at the Experiment Station, Conway, and the Poole pot gave the best results.

Shrimping Grounds Along the North Coast of Wales, Laboratory Leaflet No. 7, 7 pp., illus., processed. Fisheries Laboratory, Ministry of Agriculture, Fisheries and Food, Lowestoft, England, 1955. The results of the monthly sampling at Rhyl, Colwyn Bay, Conway, and Penmaenmawr are shown diagrammatically. They indicate that shrimps are plentiful along the coast from Rhyl to Penmaenmawr, and that commercially-profitable catches are to be obtained in this area. The survey shows, however, that shrimp are far less abundant on the southwest coast of Anglesey, Criccieth, and Portmadoc, and that they could not support a fishery in these areas.

"Tagged Shrimp Swims 100 Miles," article, Louisiana Conservationist, vol. 13, no. 10, October 1960, pp. 19-20, illus., printed. Louisiana Wild Life and Fisheries Commission, 400 Royal St., New Orleans 16, La.

#### SMALL CRAFT:

Proceedings of the International Economic Conference on Small Craft for Fisheries and Transportation, 24 pp., illus., printed. Outboard Marine Corp., Waukegan, Ill. Contains, among others, the following papers presented at the Conference held on May 24, 1960, in New York City: "Outboard Mechanization in Fisheries," by Jan-Olaf Traung; "The Outboard Boat--History and Development," by Philip L. Rhodes; "Financing Boat Mechanization," by Edwin D. Kirby; "Puerto Rican Program of Credit and Training for Fishermen," by Felix Inigo; and "Mechanization of Small Craft for Fisheries and Transportation in Uganda and Its Effects," by Alloys P. Achieng.

#### SPAIN:

Estadística de Pesca, Año 1959 (Fishery Statistics, 1959), 278 pp., printed in Spanish. Ministerio de Comercio, Dirección General de Pesca Marítima, Madrid, Spain, 1960.

#### STERN TRAWLERS:

"Further Improvement of Big Stern Trawlers with Freezing Installations," by S. L. Fridman, article, Rybnoe Khoziaistvo, vol. 35, no. 6, 1959, pp. 38-41, printed in Russian. Rybnoe Khoziaistvo, VNIRO Glavniproekta, pri Gosplanie SSSR, Moscow, U.S.S.R.

#### SUBMARINES FOR FISHERY RESEARCH:

"Experimental Cruises Aboard the Submarine Sievierianke," by V. P. Zaitsev and V. G. Azhazha, article, Rybnoe Khoziaistvo, vol. 35, no. 7, 1959, pp. 7-16, illus., printed in Russian. Rybnoe Khoziaistvo, VNIRO Glavniproekta, pri Gosplanie SSSR, Moscow, U.S.S.R. The Soviet Federal Institute of Oceanography and Fisheries has been undertaking systematic cruises aboard the submarine Sievierianke since December 1958 to investigate the habitat of commercial fishes and their behavior during fishing. Two cruises to the Barents Sea and one to the North Atlantic have already been made, covering a total distance of over 4,000 nautical miles under water.

Systematic studies were carried out on fish schools, photographs shot, bottom and water samples taken, and water temperature measured at various depths. In general, the studies indicate that: (a) a submarine is suitable for such studies, and the Sievierianke is well adapted; (b) research can be carried out under any weather conditions and is not hindered by surface waves; (c) very strong waves were perceptible up to 50 m. depth; (d) the vessel could easily enter fish schools though it scattered them; and (e) observations made through the bullees were comparable to those made with echo sounders.

"First Experiment with Submarine for Observing the Behavior of Herring," by D. V. Radakov and B. S. Soloviev, article, Rybnoe Khoziaistvo, vol. 35, no. 7, 1959, pp. 16-21, illus., printed in Russian. Rybnoe Khoziaistvo, VNIRO Glavniproekta, pri Gosplanie SSSR, Moscow, U.S.S.R. Describes the results obtained by the submarine Sievierianke in the Norwegian Sea. The research cruise lasted from December 29, 1958, to January 21, 1959. The purpose was to determine the kind of observations that could be made from the submarine on winter herring. The behavior was different on different days and at different times of the day. The herring were rather restful and even motionless. The majority was in a normal position, but part of them were resting with their heads downwards or upwards, and even with their bellies upwards. The herring rose upwards toward the evening. Fish in schools were usually more active and quickly swam across the field of visibility of the bullees. The herring started to grow more and more agile in the evening and continued throughout the night, reaching a peak at dawn when their agility began to fall. When the light was switched on and off they did not move away from the field of illumination during the first half of the night, but they showed a negative reaction to the electric light during the second half and at daytime. This reaction grew stronger at dawn. The assumption of passive behavior of winter herring was confirmed. Quantitative data describing the degree of agility of the herring and the growing agility throughout the night were obtained. It may be inferred that drift nets catch fish merely during their agility period, particularly during their vertical migration in the evening and at dawn. Although the facts obtained during the experiments should be more closely scrutinized, the short period during which they were obtained promises great possibilities for research with submarines on the behavior of fish.

#### TARIFFS AND TRADE:

Public Notice of Investigation and Hearings (Investigation No. 9--Supplement A Under Section 3 of the Trade Agreements Extension Act of 1951, as Amended, and Section 332 of the Tariff Act of 1930, with Respect to Supplemental List of Articles for Consideration in Proposed Trade Agreements Negotiations with Contracting Parties of GATT), 3-9--Suppl., 5 pp., processed. United States Tariff Commission, Washington 25, D. C., November 22, 1960.

Tariff Classification Study, Submitting Report, TC Miscellaneous Series, 89 pp., printed, 35 cents. United States Tariff Commission, Washington, D. C., November 15, 1960. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) This is the final report on the Tariff Classification Study which includes the text of proposed

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tariff schedules. The Study, which comprises 10 volumes, is being submitted to the President and to the Chairmen of the Committee on Finance of the Senate and of the Ways and Means Committee of the House of Representatives. Legislation will be required to make the proposed tariff schedules effective. The classification provisions are organized into 8 schedules, in contrast with the present 16. Some proposed changes in rates for fishery products are included in this report.

#### TAX GUIDE:

Tax Guide for Small Business, 1961 Edition, 144 pp., printed, 40 cents. Internal Revenue Service, Washington, D.C., November 1960. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.)

#### TERRAPIN:

"A Turtle of Taste," by George K. Reid, article, Natural History, vol. 69, no. 10, December 1960, pp. 23-27, illus., printed. The American Museum of Natural History, Central Park W. at 79th St., New York 24, N. Y. Discusses the life cycle, occurrence, and "family history" of the diamondback terrapin. Birds, beasts, and gastronomes relish this tasty reptile, says the author.

#### TROCHUS SHELL:

"1957 Trochus Transfer to Cooks Apparently Successful," by Louis Devambe, article, South Pacific Bulletin, vol. 10, no. 4, October 1960, pp. 31, 36, illus., printed. South Pacific Commission, Box 5254, G.P.O., Sydney, Australia. Early in 1957, acting on the advice of the South Pacific Commission's fisheries officer, the Cook Islands Administration arranged for two transfers of live trochus by air from Fiji to Aitutaki Island. Now, with the arrival at Commission headquarters from the Cook Islands of a young trochus shell comes probable proof that the original stock there is actually breeding, states the author.

#### TROLLING:

"Mechanical Characteristics of Plate Depressors for Trolling," by Noboru Isouti and Tasae Kawakami, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 23, nos. 7 and 8, 1957, pp. 354-357, printed in Japanese and English. Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori 6-chome, Minato-ku, Tokyo, Japan.

#### TUNA:

"La Explotacion de Tunidos en Espana, su Momento Actual" (Current Spanish Development of Tuna Resources), by Angel Gonzalez Rodal, article, Industria Conservera, vol. 26, no. 255, September 1960, pp. 245-246, printed in Spanish. Industria Conservera, Calle Marques de Valladares, 41 Vigo, Spain.

Premieres Donnees sur le Thon a Nageoires Jaunes en Nouvelle-Caledonie (First Studies on the Yellowfin Tuna in New Caledonia), by M. Legand and R. Desrosieres, Institut Francais d'Oceanie, Rapport Scientifique no. 11, 80 pp., illus., processed in French. Office de la Recherche Scientifique et Technique Outre-Mer, 20, Rue Monsieur, Paris 7<sup>e</sup>, France, 1960.

"Rapport over Storje, Habrann-, Pigghaundersokelser med F/F G. O. Sars i Omradet: Irland, Shetland, Faeroyene, Norskekysten i Tiden 21 Juli-18 August

August 1960" (Report on Exploratory Fishing Cruise for Tuna on the G. O. Sars off Ireland, the Shetlands, Faroes, and the Norwegian Coast, July 21-August 18, 1960), article, Fiskets Gang, vol. 46, no. 43, October 27, 1960, pp. 600-602, illus., printed in Norwegian. Fiskets Gang, Postgiro nr. 691 81, Bergen, Norway.

"Tuna Fishing on Board Shinio Maru (December 1958-January 1959)," by Y. Carmel, article, Fishermen's Bulletin, no. 19, pp. 15-17, illus., printed in Hebrew. Fishermen's Bulletin, Sea Fisheries Research Station, P. O. Box 699, Haifa, Israel.

#### TUNA CLIPPERS:

Transverse Stability of Tuna Clippers, by J. Paulling, Jr., 14 pp., illus., processed. Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, 1959. Paper read at the Second World Fishing Boat Congress, Rome, April 5-10, 1959.

#### TUNA LONG-LINER:

"Les Ateliers et Chantiers de la Manche Lancent le Thonier-Palangrier Congelateur Daguite pour Israel" (The Firm of Les Ateliers et Chantiers de la Manche Launches the Tuna Long-Liner Freezer Daguite for Israel), article, La Peche Maritime, vol. 39, no. 990, September 1960, pp. 521-522, illus., printed in French. La Peche Maritime, 190, Boulevard Haussmann, Paris, France.

#### TURKEY:

Balik ve Balikcilik (Fish and Fishery), vol. 8, no. 10, October 1960, 32 pp., illus., printed in Turkish with English table of contents. Balik ve Balikcilik, Istanbul Balikcilik, Mudurlugu, Besiktas, Istanbul, Turkey. Includes, among others, the following articles: "On the Production and Preservation of Caviar, Fish Eggs, and Fish Milk," by Hikmet Akgunes; "On Lobsters (Part II)," by Sitki Uner; and "A Delicious Sea Weed."

#### UNITED KINGDOM:

Hygiene in the Retail Fish Trade; The Hygienic Transport and Handling of Fish, Food Hygiene Codes of Practice Nos. 3 and 4; 20 pp. and 16 pp., respectively, 20 cents each. British Information Services, 45 Rockefeller Plaza, New York 20, N. Y., 1960.

#### U.S.S.R.:

The following translations are obtainable from the Office of Technical Services, Department of Commerce, Washington 25, D. C., at a minimum cost of 50 cents for short articles or an approximate cost of 1 cent per page for articles and books of more than 50 pages. Order by OTS number.

"Dynamics in the Numerical Counts and the Contemporary State of the Chum and Pink Salmon Stocks in the Amur River Basin," by I. B. Birman, article, Trudy Soveshchaniya po Voprosam Lososevogo Khoziaistva Dal'nego Vostoka, no. 4, 1953, pp. 22-37. OTS 60-51041.

"Our Curiosity on the Operation of the Trawl in Water," by N. A. Lyapin, article, Rybnoe Khoziaistvo, vol. 2, no. 35, pp. 43-46. OTS 60-51080.

"The State of Stocks and Means for Increasing the Number of Amur Pink Salmon," by V. V. Abramov, article, Trudy Soveshchaniya po Voprosam Lososevogo Khoziaistva Dal'nego Vostoka, no. 4, 1953, pp. 48-69. OTS 60-21144.

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"Studies of Crustacea of the Red Sea. Part I--Podophthalmata and Edriophthalmata. XIV," by O. Paul'son (Otto Mikhailovich), 180 pp. Tipografica S. V. Kul'zhenko, Kiev, U.S.S.R. OTS 60-21821.

"Ways of Increasing the Reproduction of Amur Chum Salmon," by V. Ia. Levanidov, article, Trudy Soveshchaniya po Voprosam Lososevogo Khoziaistva Dal'nego Vostoka, no. 4, 1953, pp. 120-128. OTS 60-51042.

Kholodil'naia Tekhnika (Refrigeration Journal) no. 5, 1960, 80 pp., illus., printed in Russian with English summaries. Kholodil'naia Tekhnika, c/o Four Continent Book Corp., 822 Broadway, New York 3, N.Y. Includes, among many others, articles on: "Precooked Frozen Foods," by V. Shelaputin and others; and "Experimental Storage of Fatty Fish at Low Temperatures," by A. Piskarev, L. Lukyanitsa, and K. Fomicheva.

#### VENEZUELA:

Conservas de Pescado (Canned Fishery Products), Serie Estudios Preliminares sobre Industrias No. 1, 24 pp., printed in Spanish. Corporacion Venezolana

de Fomento, Sub-Gerencia de Servicios Tecnicos, Unidad de Estudios, Caracas, Venezuela, 1960.

#### WHALE MEAT MEAL:

"Composition and Amino-Acid Content of High-Grade Whale Meat Meal," by H. Pritchard and Patricia A. Smith, article, Journal of the Science of Food and Agriculture, vol. 11, May 1960, pp. 249-252, printed. Journal of the Science of Food and Agriculture, Society of Chemical Industry, 14 Belgrave Square, London, S.W. 1, England.

#### WHALING:

"Aspects Actuels de la Peche a la Baleine: les Whales Catchers Japonais" (Contemporary Observations of Whaling: the Japanese Catcher Boats), by R. Lenier, article, France Peche, vol. 5, no. 44, October 1960, pp. 22-28, illus., printed in French. France Peche, Tour Sud-Est, Rue de Guemene, Lorient, France.

#### YUGOSLAVIA:

Stocarstvo i Ribarstvo, 1959 (Stockbreeding and Fisheries, 1959), Statisticki Bilten 182, 36 pp., illus., printed in Serbo-Croatian. Federativna Narodna Republika Jugoslavija, Savezni Zavod za Statistiku, Belgrade, Yugoslavia, November 1960.



#### CORRECTION

This correction should be made for the article "Down with Rejects--Up With Profits," which appeared in the December 1960 issue of Commercial Fisheries Review. The scale at the bottom of Fig. 1 on page 16 should have had the following legend: "Pounds rejected per thousand pounds of plant output."