



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-2363 | - Massachusetts Landings, May 1960, 5 pp. |
| CFS-2365 | - Virginia Landings, June 1960, 3 pp. |
| CFS-2369 | - South Atlantic Fisheries, 1959 Annual Summary, 6 pp. |
| CFS-2370 | - Frozen Fish Report, July 1960, 8 pp. |
| CFS-2372 | - Maine Landings, May 1960, 3 pp. |
| CFS-2373 | - New York Landings, June 1960, 4 pp. |
| CFS-2375 | - Shrimp Landings, May 1960, 6 pp. |
| CFS-2376 | - Rhode Island Landings, June 1960, 3 pp. |
| CFS-2382 | - Ohio Landings, June 1960, 2 pp. |
| CFS-2377 | - Massachusetts Landings, June 1960, 5 pp. |
| CFS-2378 | - Virginia Landings, July 1960, 3 pp. |
| CFS-2379 | - Mississippi Landings, May 1960, 2 pp. |
| CFS-2380 | - Maryland Landings, July 1960, 3 pp. |
| CFS-2381 | - North Carolina Landings, July 1960, 3 pp. |
| CFS-2383 | - South Carolina Landings, July 1960, 2 pp. |
| CFS-2384 | - Texas Landings, June 1960, 3 pp. |
| CFS-2385 | - Georgia Landings, July 1960, 2 pp. |
| CFS-2386 | - Maine Landings, June 1960, 3 pp. |
| CFS-2387 | - California Landings, May 1960, 4 pp. |
| CFS-2389 | - Florida Landings, July 1960, 7 pp. |
| CFS-2391 | - Shrimp Landings, June 1960, 6 pp. |
| CFS-2392 | - Rhode Island Landings, July 1960, 3 pp. |
| FL-336ss | - Commercial Fisheries Outlook, July-September 1960, 44 pp. |
| FL-499 | - Federal Fishing Vessel Mortgage and Loan Insurance, 14 pp., July 1960. Describes the Fishing Vessel Mortgage and Loan Insurance Program administered by the Bureau of Commercial Fisheries. This provides for the insuring of mortgages given to assist the construction, reconstruction, and reconditioning of fishing vessels in a manner similar to the mortgage insurance provided by the Federal Housing Administration for houses. Discusses the authority for the program, its purpose, credit requirements, eligible mortgages and loans, premium rates for both types of insurance, applications, investigation fees, commitments to insure, closing procedures, and defaults. |

FL-503 - Fishing Vessel Construction Differential Subsidy, 12 pp., processed, September 1960. A leaflet containing general information about the Fishing Vessel Construction Subsidy Program, administered by the U. S. Bureau of Commercial Fisheries. Describes the enacting of the enabling legislation for the program, Public Law 86-516; its purpose of providing financial assistance to correct inequities between foreign and domestic costs of construction of fishing vessels; applications for benefits; and eligibility requirements. It also presents details on the processing of applications; requirements for construction of vessels; and determination and payment of a subsidy.

Wholesale Dealers in Fishery Products, 1959 (Revised):

- SL- 1 - Maine.
 SL-24 - Minnesota (Lakes Area).
 SL-32 - Minnesota (Mississippi River and Tributaries).
 SL-33 - North Dakota (Mississippi River and Tributaries).
 SL-36 - Iowa (Mississippi River and Tributaries).
 SL-37 - Kansas (Mississippi River and Tributaries).
 SL-38 - Missouri (Mississippi River and Tributaries).
 SL-42 - Kentucky (Mississippi River and Tributaries).
 SL-44 - Nebraska (Mississippi River and Tributaries).
 SL-48 - Indiana (Mississippi River and Tributaries).
 SL-49 - South Dakota (Mississippi River and Tributaries).

SSR-Fish. No. 325 - Observations on Habits and a Method of Trapping Channeled Whelks Near Chatham, Massachusetts, by William N. Shaw, 9 pp., illus., May 1960.

SSR-Fish. No. 340 - Further Experiments in Fishway Capacity, 1957, by Carl H. Elling, 18 pp., illus., May 1960.

SSR-Fish. No. 343 - Manufacturing Plant Food Services as Markets for Fish and Shellfish, 35 pp., May 1960. This report identifies and examines the market for fish and shellfish afforded the fishing industry by the employee food services maintained by manufacturing establishments for their employees. Important differences in the use of fish and shellfish are found, depending on number of employees, location or plant, species of fish, type of product, and other factors. Other points covered include buying practices, inventories, and availability of freezer space. Careful examination of the data leaves no doubt that, while the survey period was for 4 weeks in January and February 1956, the results are pertinent to the current situation.

SSR-Fish. No. 346 - Species Composition of Industrial Trawl-Fish Landings in New England, 1958, by Robert L. Edwards and Lewis Lawday, 22 pp., illus., June 1960. Presents data on the species composition of the industrial trawl-fish catch landed in 1958 at the New England ports of Point Judith, R. I., and New Bedford and Gloucester, Mass. The information given covers percent by weight and pounds landed for each of the principal fishing areas, by month and port.

SSR-Fish. No. 349 - Chemical Analyses of Marine and Estuarine Waters Used by the Galveston Biological Laboratory, by Kenneth T. Marvin and others, 16 pp., June 1960.

Sep. No. 600 - Development and Use of Otter-Trawling Gear for Red Snapper Fishing in the Gulf of Mexico, June 1957-May 1959.

Sep. No. 601 - Structure of the Fishing Industry in the European Common Market.

(International North Pacific Fisheries Commission) United States Section Meeting, March 1960, Circular 85, 32 pp., illus., May 1960. Includes a brief discussion of the International North Pacific Fisheries Commission and its work. Also includes the following papers presented before a joint session of the Alaska Legislature on March 4, 1960: "Statement of the United States Section, International North Pacific Fisheries Commission," by Milton E. Brooding; "Scientific Research by the United States," by J. L. McHugh; "Research Related to the Case for Abstinence," by R. A. Fredin; "Distribution and Racial Composition of Salmon on the High Seas," by Clinton E. Atkinson; and "Pacific Salmon in International Waters," by Allan C. Hartt.

Survey of Fishing in 1000 Ponds in 1959, by Willis King, Circular 86, 24 pp., illus., May 1960. Reports the results of a survey conducted to determine how much recreational fishing our national fish hatcheries are furnishing by providing warm-water fish to stock farm and ranch ponds. Findings show that one-fourth of all persons fishing in fresh water in 1959 fished at least once in a pond that had been stocked by the Bureau of Sport Fisheries and Wildlife. Between 30,000 and 40,000 ponds are stocked annually with fish produced at the national fish hatcheries. Large-mouth bass and bluegill sunfish were the primary species used in the stocking program while red-ear sunfish and bluegills were stocked in the southeastern States and channel catfish in 155 ponds in the southwest. More than 20 million man-days of recreational fishing were provided in 1959 to at least 5 million persons as a result of the farm-pond fish-stocking program, the survey showed.

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-29	Union of South Africa Pilchard/Maasbanker Fish Meal and Oil Reduction Plants.
MNL-30	Venezuelan Reduction Plants.
MNL-31	Moroccan Reduction Plants.
MNL-32	Venezuelan Commercial Catch, Production of Processed Fishery Products, and Foreign Trade for 1958 and 1959.

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

(Baltimore) Monthly Summary - Fishery Products, March and April 1960, 9 and 8 pp., respectively. (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, July and August 1960; 14 and 15 pp., respectively. (Market News Service, U. S. Fish and Wildlife Service, Post Office Bldg., San Pedro, Calif.) California cannery receipts of tuna and tunalike fish, mackerel and anchovies; pack of canned tuna, mackerel, and anchovies; market fish receipts at San Pedro, Santa Monica, and Eureka areas; California imports; canned fish and frozen shrimp prices; ex-vessel prices for cannery fish; for the months indicated.

(Chicago Monthly Summary of (Chicago's) Fresh and Frozen Fishery Products Receipts and Wholesale Market Prices, August 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.

Monthly Summary of Fishery Products Production in Selected Areas of Virginia, North Carolina, and Maryland, August 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 York City's Wholesale Fishery Trade--Monthly Summary for July 1960, 19 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; range of prices of fresh-water fish in Peck Slip, Jan.-July 1960; and marketing trends; for the month indicated.

Receipts and Prices of Fresh and Frozen Fishery Products at Chicago, 1959, by G. A. Albano, 65 pp., September 1960. (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 changes in receipts of various species from previous years. He also discusses sources of receipts; fishery products carload receipts at Chicago; trends in fishery products transportation; receipts by months, species, and varieties; and lake trout and whitefish fisheries and receipts. Other topics covered are trends in Great Lakes commercial fishery, imports of fresh and frozen fresh-water fish from Canada, imports of

selected frozen fishery products, cold-storage inventories, frozen shrimp market trends, U. S. shrimp landings and imports, and standards for grades of frozen raw headless shrimp. 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.

Special Conference with the Fishing Industry on Export Trade Promotion, June 20, 1960, 14 pp., processed. (Branch of Foreign Fisheries and Trade, Bureau of Commercial Fisheries, U. S. Fish and Wildlife Service, Washington 25, D. C.) A report on a special conference with the fishing industry on export trade promotion, held on June 20, 1960, in Washington, D. C. This report, consisting of summary minutes, lists the industry and Government representatives present and discusses the purpose of the meetings, foreign tariffs, quantitative restrictions, promotion of U. S. exports, and work of the Federal Trade Commission. It also covers assistance of the Export-Import Bank, duties of the Regional Fisheries Officer for Latin America, promotion of U. S. fishery products, and presentation of several fishery problems by industry representatives. A summary of fishing industry recommendations to increase U. S. exports is included.

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

"Use of a Small Otter Trawl to Sample Deep-Water Fishes in Maine Lakes," by Robert S. Rupp and Stuart E. DeRoche, article, *Progressive Fish-Culturist*, vol. 22, no. 3, July 1960, pp. 134-137, illus., processed, 25 cents.

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.

ANCHOVY:

"The Ripening Process of Anchovy," article, Redogorelse for Arbetsaret July 1, 1958-June 30, 1959, SIK Report No. 71, p. 36, printed in Swedish. Svenska Institute for Konserveringsforskning, Goteborg, Sweden, 1959.

ANTIBIOTICS

"Effectiveness of Dip in Iced Chlorotetracycline (CTC)-Containing Sea Water on Keeping Quality of Mackerel Aboard Ship and Determination of CTC Residues on the Fish," by Tetuo Tomiyama and Yasuo Yone, article, *Bulletin of the Japanese Society of Scientific Fisheries*, vol. 25, August 1959, pp. 290-293, illus.,

printed in Japanese with English abstract. Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori 6-chome, Tokyo, Japan.

ANTIBIOTICS:

"Questions of the Availability of Ice as Carrier of Chemical Preservatives--an Examination with Chlorotetracycline," by K. Higashi and others, article, *Bulletin of the Japanese Society of Scientific Fisheries*, vol. 24, no. 11, 1959, pp. 920-924, printed in Japanese with English summary. Japanese Society of Scientific Fisheries, Shiba-kaigandori 6-chome Tokyo, Japan.

ARGENTINA:

"La Pesca en la Republica Argentina" (The Fishery in Argentina), by A. B. Sailor, article, *Puntal*, vol. 7, no. 74, May 1960, pp. 11-12, illus., printed in Spanish. *Puntal*, Ramon y Cajal 3, Apartado 316, Alicante, Spain.

BIOCHEMISTRY:

"Sodium Content of Fish Flesh," by Claude E. Thurston and Kathryn L. Osterhaug, article, *Journal of the American Dietetic Association*, vol. 36, March 1960, pp. 212-215, printed. American Dietetic Association, 620 N. Michigan Ave., Chicago 11, Ill.

CANADA:

Canadian Commercial Fish Landings of Eastern, Central, and Western Lake Erie, 1870-1958, by James W. Davies, 87 pp., illus., processed. Department of Lands and Forests, Parliament Buildings, Toronto 5, Canada. Production statistics taken from official records of the Canadian fishing industry in Lake Erie are presented by species, in tabular and graphical form for (a) Essex County, including the Pelee Island fishery; (b) Kent and Elgin Counties; and (c) Norfolk, Haldimand, and Welland Counties, including the Niagara River above the Falls, and including the Grand River from 1876 to 1904, and 1913 to 1922.

List of the Marine Fishes of Canada, by D. E. McAlister, Bulletin No. 168, National Museum of Canada, printed, C\$1.25 (about US\$1.29). Queen's Printer and Controller of Stationery, Ottawa, Canada. Includes all species of fishes recorded as occurring in the brackish and marine waters of Canada. In general, only fishes of the Continental Shelf and offshore fishing banks are listed. Names are listed alphabetically under the family or subfamily. The scientific name is followed by its author and date of publication.

Operations of Longliners and Druggers, Atlantic Seaboard, 1952-1958, by John Proskie, Primary Industry Studies no. 1, vol. 8, part 1, 110 pp., illus., processed. The Queen's Printer and Controller of Stationery, Ottawa, Canada, 1960. This is the first part of the eighth annual progress report on the study of modern fishing craft on the Atlantic seaboard. It reviews the impact of the modernization policy on the groundfish industry; strengths and weaknesses of the policy are appraised in terms of accomplishments to the end of 1958 and in terms of types and sizes of craft most suitable and successful in their operations. Trends established since the inception of the study are presented in chart form for the most important input-output factors affecting the profitability of the enterprises studies.

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

Also, tables are presented summarizing trends in average landings per enterprise by quantity and value of species as well as for the average prices received by fishermen.

Operations of Modern Longliners and Druggers, Atlantic Seaboard, 1958, by John Proskie, Primary Industry Studies no. 1, vol. 8, part 2, 68 pp., illus., processed. The Queen's Printer and Controller of Stationery, Ottawa, Canada, 1959. The second part of the eighth annual progress report on a study of the economics of modern fishing-craft operations in the Atlantic provinces. The tables provide a comparison of the findings obtained from the detailed accounts of 134 fishing enterprises for the 1958 season. The data include capital and operating costs, as well as returns to labor, capital, and management. The length of the fishing season and the intensity of the fishing effort are related to grounds worked, volume of output, and species landed.

Summary Statistics of Canada's Fisheries, 1939-1958, 39 pp., printed. (Reprinted from Canadian Fisheries Annual, 1960, pp. 60-98.) Canadian Fisheries Annual, Gardenvale, Quebec, Canada. Statistics are presented in 8 sections on landings and value of Canadian fisheries and related data: (1) summary statistics for 1949-1959; (2) East Coast fisheries; (3) fresh-water fisheries; (4) West Coast fisheries; (5) fillet production; and (6), (7) and (8) exports and imports. Also included are a list of addresses of fishing companies and a directory of fishery products by type, such as fresh and frozen fish (whole or dressed), fresh and frozen fish (filleted), smoked fish (dressed or filleted), cured fish, canned fish (not including shellfish), shellfish (in shell or meat--not canned), canned shellfish, fish oils and fish livers, fish meal, and other fishery products. Listed under each classification are the companies which process that particular product. Data are mostly for 1958, although some 1959 figures are given.

CANNING:

Canning, article, Food Investigation 1957, pp. 20-21, printed. Department of Scientific and Industrial Research, London, England, 1958. (Available from Her Majesty's Stationery Office, York House, Kingsway, W. C. 2, England.) Describes studies for improving the quality of canned herring with regard to flavor and texture which are being carried out at the Torry Research Station, Aberdeen, Scotland, by the British Food Manufacturing Industries Association. The minor extractives that are largely responsible for odor and flavor in both raw and cooked herring meat are the subject of this study.

"Research on the Resistance of Tinplate to Corrosion," by S. C. Britton, article, Chemistry and Industry No. 7, February 13, 1960, pp. 158-163, printed. Chemistry and Industry, 14 Belgrave Square, London W1, England.

CARP:

Cultivo de la Carpa Seleccionada en Mexico (Selected Carp Culture in Mexico), by Fernando Obregon, 64 pp., illus., printed in Spanish. Secretario de Agricultura y Ganaderia, Calle de Tacuba 7, Mexico, D. F., Mexico, 1960.

CHESAPEAKE BAY:

Chesapeake Science, vol. 1, no. 1, April 1960, 77 pp., illus., printed, single copy 75 cents, annual subscription \$2. Maryland Department of Research and Education, Chesapeake Biological Laboratory, Solomons, Md. The first issue of a new publication devoted to presenting the results of research and management studies dealing with the natural resources of the Chesapeake Bay region and other technical papers on related subjects. The publications, issued periodically, proposes to publish short papers and notes. Participation is solicited by research centers, colleges, universities, and scientific societies in the Chesapeake Bay region. Includes, among others, the following articles: "Evaluation of a Method of Reducing the Powering Requirements of Soft-Shell Clam Dredging," by J. H. Manning and A. McIntosh Kennison; "Comparison of the Movements of Stocked and Resident Yellow Perch, Perca flavescens, in Tributaries of Chesapeake Bay, Maryland," by Romeo Mansueti; "Preliminary Report on Attracting Fish by Oyster-Shell Plantings in Chincoteague Bay, Maryland," by John Arve; "Supplemental Survey of Soft-Shell Clam Bottoms in Tidewater Somerset County, Maryland," by H. T. Pfitzenmeyer; "Notes on the Soft-Shell Turtle (Trionyx) in Maryland Waters," by Romeo Mansueti and David H. Wallace; "Mass Mortality of the Starfish, Asterias forbesi, on the Atlantic Coast of Maryland," by Fred W. Stieling; and "Availability of Striped Bass during Summers of 1958 and 1959 as Reflected in Commercial Seine Catch," by George J. Murphy.

COD:

"Cod from Norway. II--Klipfish and Stockfish," by A. E. Hammond, article, Food, vol. 28, no. 334, 1959, pp. 256-258, illus., printed. Food, Tothill Press Ltd., 33 Tothill St., London S. W. 1, England.

COD FILLETS:

"The Effect of Time and Temperature of Cooking on the Palatability and Cooking Losses of Frozen Atlantic Codfish Fillets," by Iva L. Armstrong and others, article, Journal of the Fisheries Research Board of Canada, vol. 17, January 1960, pp. 1-7, printed. Journal of the Fisheries Research Board of Canada, Queen's Printer and Controller of Stationery, Ottawa, Canada.

CRUSTACEANS:

"Paper Chromatographic Studies on the Fatty Acid Composition of Some Fresh Water Crustaceans," by T. Farkas and S. Herodek, article, Acta Biologica Academiae Scientiarum Hungaricae, vol. 10, 1959, pp. 85-90, illus., printed. Acta Biologica Academiae Scientiarum Hungaricae, Magyar Tudományos Akademia, Akademia ut 2, Budapest V, Hungary.

FATTY ACIDS:

"Effects of Certain Pure Long-Chain Polyunsaturated Fatty Acid Esters on the Blood Lipides of Man. Use of Polyunsaturated Fatty Acids in Atherosclerosis," by H. E. Worne and L. W. Smith, article, The American Journal of the Medical Sciences, vol. 237, 1959, pp. 710-721, printed. The American Journal of the Medical Sciences, Lea and Febiger, Philadelphia 6, Pa.

FISH CAKE:

Food Hygienical Studies on Japanese Fish-Cake Products. I--The Rate of Penetration of Cooking Tem-

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

perature in Fish-Cakes of Commerce, by Keishi Amano and others, 15 pp., illus., printed in Japanese with English abstract. (Reprinted from Bulletin of the Japanese Society of Scientific Fisheries, vol. 20, no. 9, January 1955, pp. 816-829.) Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori 6-chome, Tokyo, Japan.

A Study on the Preservation of Fish Cake: Part III--Effect of Plastic Casing Upon the Storage of Sugar-Added Fish Cake, by Hitoshi Uchiyama, Keishi Amano, and Motonobu Yokoseki, vol. 21, no. 6, October 1955, pp. 441-447; Part IV--Factors Involved in Preservative Effect of Carbon Dioxide, by Motonobu Yokoseki, Hitoshi Uchiyama, and Keishi Amano, vol. 22, no. 1, May 1956, pp. 35-40; (Reprinted from Bulletin of the Japanese Society of Scientific Fisheries.) Both are printed in Japanese with English abstracts. Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori 6-chome, Tokyo, Japan.

FISH CULTURE:

The Function and Significance of Fish Culture in Relation to the Regional/Village Economy, by R. Soekarno, Occasional Paper No. 59/7, processed. Indo-Pacific Fisheries Council, Food and Agriculture Organization of the United Nations, Bangkok, Thailand, 1959.

FISH DETECTION:

"Fischsuche und Fischortung" (Location and Detection of Fish), by J. Scharfe, article Protokolle zur Fischereitechnik, vol. 5, nos. 22/23, 1958, pp. 175-204, printed in German. Protokolle zur Fischereitechnik, Institut für Netz-und-Materialforschung, Die Bundesanstalt für Fischerei, 72 Neuer Wall, Hamburg 36, W. Germany.

FISH FLOUR:

"Studies on the Nutritional Value of Defatted Fish Flour," by A. B. Morrison and J. A. Campbell, article, Federation Proceedings, vol. 19, Part I, March 1960, p. 326, printed. Federation of American Societies for Experimental Biology, 9650 Wisconsin Ave., NW, Washington 14, D. C.

FISH MEAL:

"Biological Evaluation of Factors Affecting the Protein Quality of Fish Meals," by N. T. Rand and others, article, Poultry Science, vol. 39, January 1960, pp. 45-53, printed. Poultry Science Association, Kansas State College, Manhattan, Kans.

"New Fish Meal Tested in Broiler Rations," by E. J. Day and J. E. Hill, article, Poultry Science, vol. 38, no. 5, 1959, pp. 556-559, printed. Poultry Science Association, Ohio State University, Columbus 10, Ohio.

FISH OILS:

"On the Occurrence of Eicosatetraenoic, Docosapentaenoic and Docosahexaenoic Acids in Fish Oils," by Y. Toyama, Y. Iwata, and K. Fujimura, article, Fette-Seifen-Anstrichmittel, vol. 61, October 1959, p. 846, printed in German. Fette-Seifen-Anstrichmittel, Industrieverlag von Hernhaussen KG, Hamburg 11, Germany.

"Preparation of a Coating Material by Chlorination of Fish Oil. IV--Change of Molecular Weight of Fish Oil Caused by Chlorination," by Kosaku Suzuki, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 24, no. 12, 1959, pp. 1008-1011, illus., printed in Japanese with English abstract. Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori 6-chome, Tokyo, Japan.

FISH SAUSAGE:

The Softening Deterioration of Fish Sausage:

Part I--Some Chemical and Microscopical Aspects, by Hitoshi Uchiyama and Takeo Tanada, vol. 24, no. 2, June 1958, pp. 148-155, illus.;

Part II--Microbiological Studies of the Softening Deterioration, by Motonobu Yokoseki, Hitoshi Uchiyama, and Toshiaki Mamizuka, vol. 24, no. 2, June 1958, pp. 156-160, illus.;

Part III--An Anaerobic Starch Digestion by BACILLUS CIRCULANS Isolated from Softened Part of Fish Sausage and Other BACILLUS Species, by Hitoshi Uchiyama, Motonobu Yokoseki, and Koo-taro Motohashi, vol. 24, no. 5, September 1958, pp. 370-377, illus.;

Part IV--A New Preventive Means of the Softening Spoilage of Fish Sausage, by Hitoshi Uchiyama and Keishi Amano (Reprinted from Bulletin of Tokai Regional Fisheries Research Laboratory, no. 26, November 1959, pp. 61-67, illus.);

Part V--Effect of Sodium Pyrophosphate and Sorbic Acid on the Growth of Spore of BACILLUS CIRCULANS, by Hitoshi Uchiyama and Keishi Amano, vol. 25, nos. 7-9, November 1959, pp. 531-544, illus.;

(Parts I, II, III, and V reprinted from Bulletin of the Japanese Society of Scientific Fisheries.) All are printed in Japanese with English abstracts. Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori 6-chome, Tokyo, Japan.

FISH SILAGE:

"Ensilering af Fisk og Fiskeaffald" (Ensilage of Fish and Fish Offal), by P. Hansen, article, Meddelelse Fiskeriministeriets Forsogslaboratorium, May 1959, 26 pp., illus., printed. Fiskeriministeriets Forsogslaboratorium, Ostervoldgade 10, Copenhagen-K, Denmark.

FISH SOLUBLES:

Edible Protein Products from Fish Solubles, by Jeremiah Milner, U. S. Patent No. 2,857,278, October 21, 1958. U. S. Patent Office, Washington 25, D. C.

FOOD AND AGRICULTURE ORGANIZATION:

Catalogue of FAO Fisheries Publications, August 1960, compiled by Patricia M. Andrews, 20 pp., processed. Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy. Lists periodicals, FAO Fisheries Studies, FAO Fisheries Papers, separate publications, and publications of the General Fisheries

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

Council for the Mediterranean. Also lists publications of the Indo-Pacific Fisheries Council, reports of the Latin American Fisheries Training Centers, reports of the Expanded Technical Assistance Program, and reprints of articles appearing in FAO Fisheries Bulletin and other periodicals.

Soil and Water Conservation, vol. IV, Natural Aquatic Resources, 376 pp., printed in French and English. International Union for Conservation of Nature and Natural Resources, 31 rue Vautier, Brussels 4, Belgium, 1960. Contains papers presented at the Seventh Technical Meeting of I. U. C. N., Athens, September 1958, including those on basic elements--definition of soil and water conservation, definition of aquatic resources, and the uses of water and soils and the changes which man wishes to bring about in them. Papers also discuss the effect of land and water use on the aquatic environment--various soil conservation measures, engineering constructions; dredging operation, and pollution control; and the methods whereby deleterious effects of land and water use practices on aquatic resources can be minimized and, wherever possible, made to increase the resources.

The Use of Fishery Statistics by Government and Business in Northwest Europe, by G. M. Gerhardsen, FAO Fisheries Papers No. 17, 14 pp., processed, limited distribution. Fisheries Division, Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, June 1960. Working paper presented at the Expert Meeting on Fishery Statistics in the North Atlantic Area, Edinburgh, Scotland, September 1959. Discusses the need for fishery statistics by Government and business; and available statistics on catch and landings, manpower, fishing craft and gear, processing establishments, and fish marketing. Also discusses international aspects of statistical systems; assessment of adequacy of statistics; and desirable trends in the development of fishery statistics.

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.

Fishery Resources of the Inland Waters (U. A. R. -- Northern Region), by W. C. Beckman, FAO Report No. 1045, processed, 1959.

Fishery Resources of the Inland Waters of Syria, Appendix IV, by W. C. Beckman, FAO Report No. 1045A, processed, 1959.

Marine Fishery Biology (Indonesia), by T. H. Butler, FAO Report No. 1057, processed, 1959.

Methodology and Techniques of Research on Mackerel (Thailand), by S. J. Holt, FAO Report No. 1095, processed, 1959.

Marine Fishery Resources (Philippines), by K. F. W. Tiews, FAO Report No. 1141, processed, 1959.

International Training Center on Handling and Processing of Fish (Thailand), by G. Sand, FAO Report No. 1164, processed, 1959.

The Kalaat el Mondik Experimental Fish Culture Station (U. A. R. -- Northern Region), by W. F. J. Wunder, FAO Report No. 1199, processed, 1960.

The Development of Fishing Harbours in the States of Bombay, Kerala and Madras, by Carl G. Bjuke and C. Ragnar Bjuke, FAO Report No. 1242, processed, 1960.

FOOD CONSUMPTION:

Food Consumption and Dietary Levels of Households Related to Employment of Homemaker, United States--by Region, Household Food Consumption Survey 1955, Report No. 15, 130 pp., illus., processed, 75 cents. U. S. Department of Agriculture, Washington, D. C., May 1960. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) This report contains a portion of the data from the U. S. Department of Agriculture's nationwide Survey of Household Food Consumption made in the spring of 1955. The survey was part of the Department's broad program of research on family dietary levels and the marketing and utilization of farm products. The survey was based on a national probability sample of approximately 6,000 housekeeping households of one or more persons. Data on "fish and shellfish" as a separate category are included in the tables.

FOOD POISONING:

"Studies on the Food Poisoning Associated with Putrefaction of Marine Products," by Toshiharu Kawabata and Shigeru Suzuki, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 25, October 1959, pp. 473-480, illus., printed in Japanese with English abstract. Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shibakaigandori 6-chome, Tokyo, Japan.

FREEZE-DRYING:

"Accelerated Freeze-Drying of Food," by S. W. F. Hanson, article, Food, vol. 28, no. 334, 1959, pp. 245-248, printed. Food, Tothill Press, Ltd., 33 Tothill St., London S.W.1, England.

FUR SEALS:

"Atlantic Seal Hunt, 1960," by J. J. Quigley, article, Trade News, vol. 13, no. 1, July 1960, pp. 8-9, illus., processed. Information and Educational Service, Department of Fisheries, Ottawa, Canada. Describes the 1960 harvest of fur seals by Newfoundland, Nova Scotia, and Norwegian fleets in the Gulf of St. Lawrence and along Newfoundland's northern front. The Nova Scotia fleet took an estimated 80,000 pelts, valued at \$320,000. Despite innovations such as aerial spotting surveys, walkie-talkies, and power winches for loading pelts, however, the seal hunt is still a dangerous and strenuous operation and is today only a shadow of its former self.

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

IDAHO:

"Salmon and Steelhead in Idaho," by Ted C. Bjornn, article, Idaho Wildlife Review, vol. 13, no. 1, July-August 1960, pp. 6-11, illus., printed. Idaho Fish and Game Dept., 518 Front St., Boise, Idaho. Discusses briefly Idaho's commercial and sport fishery regulations; the spring, summer, and fall migrations of chinook salmon; the spawning runs of steelhead trout and sockeye salmon; and Idaho's contribution to Columbia River salmon and steelhead stocks.

INFESTATION:

"Effect of the Ingestion of Trianophorus Plerocercoids on the Nutritional Characteristics of Whitefish Fillets in the Rations of Puppies," by E. W. Crampton, article, Journal of the Fisheries Research Board of Canada, vol. 17, January 1960, pp. 81-90, printed. Journal of the Fisheries Research Board of Canada, Queen's Printer and Controller of Stationery, Ottawa, Canada.

INTERNATIONAL BANK:

"Inter-American Development Bank--a New Venture in Regional Banking," by Larry F. Thomasson, article, Foreign Agriculture, vol. 24, no. 8, August 1960, pp. 8-9, printed. Foreign Agricultural Service, U. S. Department of Agriculture, Washington, D. C. (Available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Discusses the background and functions of the Inter-American Development Bank, founded on January 1, 1960, with a membership including the United States and all Latin American Republics except Cuba. The broad objective of the Bank is to accelerate the general economic development of Latin America, with all Latin American countries sharing in the cost and in the responsibility for success.

IRRADIATION:

"Chemical Properties of Oils in Gamma-Radiation Fish Meat and Products. I," by Takashi Kaneda, Hisae Sakai, and Seinosuke Ishii, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 24, no. 11, 1959, pp. 909-919, printed in Japanese with English abstract. Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori, 6-chome, Tokyo, Japan.

Effects of Gamma Irradiation on the Quality and Storage of Fish, by Keishi Amano and Kinjiro Yamada, 12 pp., illus., printed in English with Japanese abstract. (Reprinted from Bulletin of Tokai Regional Fisheries Research Laboratory, no. 26, November 1959, pp. 51-59.) Tokai Regional Fisheries Research Laboratory, Tsukishima, Chuo-ku, Tokyo, Japan.

"Irradiation Preservation of Pacific Northwest Fish. I--Cod Fillets," by David T. Miyauchi, article, Food Technology, vol. 14, no. 8, August 1960, pp. 379-382, printed. The Garrard Press, 510 North Hickory, Champaign, Ill. The specific objective of this study was to determine the effect of varying doses of ionizing radiation on the palatability and storage characteristics of raw fillets of Pacific cod held at refrigeration temperatures above freezing. Pacific cod fillets were irradiated at various dosage levels from 0 to 1.86 megarads to determine their initial acceptability and storage

characteristics at refrigerated temperatures (32° to 35° F.). The optimum irradiation dose for cod fillets appeared to be 0.46 megarads or lower. Irradiation at these low dosage levels increased the storage life of cod fillets at 32° to 35° F. by about three times. The objective freshness tests investigated, including determinations for total volatile base, total volatile acid, trimethylamine, and plate counts, did not appear to be a reliable index of quality.

"_____ : Precooked Fish Sticks," by David T. Miyauchi, *ibid.*, p. 411. In this study, the storage characteristics at room temperature of fish sticks irradiated at 1.0 and 2.0 megarads were poor. The storage life at 35° F. of irradiated fish sticks packed in cans was about 8 to 12 weeks, but the irradiated fish sticks were only fair in organoleptic quality throughout most of their storage life because a musty odor developed and the white meat darkened.

ISRAEL:

Fishermen's Bulletin, vol. 3, no. 4 (24), June 1960, 36 pp., illus., printed in Hebrew with English abstracts. Fishermen's Bulletin, P.O.B. 699, Haifa, Israel. Contains, among others, these articles: "The Red Sea--Its Importance to Research and Fisheries," by H. Steinitz; "New Trawling Grounds in Deep Water," by M. Ben-Yami and A. Ben-Tuvia; and "Impressions on the Red Sea Trawl Fishery."

ITALY:

"En Italie Intervention de l'Etat dans le Developpement de la Peche Atlantique" (In Italy, Intervention of the State in the Development of the Atlantic Fishery), by Cesare de Felipe, article, France Peche, vol. 5, no. 42, July-August 1960, pp. 25-26, printed in French. France Peche, Tour Sud-Est, rue de Gue-mene, Lorient, France.

JAPAN:

Annual Report of Catch Statistics on Fishery and Aquaculture, 1958, Agriculture Forestry and Fishery Statistics Bulletin 34-40, 412 pp., printed in Japanese and English. Statistics and Survey Division, Ministry of Agriculture and Forestry, Tokyo, Japan, October 1959. Contains statistical information on the 1958 production of marine fisheries--whaling, pelagic fisheries on high seas, and domestic marine fisheries--whaling, pelagic fisheries on high seas, and domestic marine fisheries; culture in shallow seas, inland water fisheries; and culture in inland waters. Also presents data on processing, average market prices of fishery commodities, estimated value of catch, and consumption of petroleum products for fisheries.

An Attempt for Estimating Time of Dragnet Fishing from Freshness of the Catch, by Taneko Suzuki, 10 pp., illus., printed in Japanese with English abstract. (Reprinted from Bulletin of Tokai Regional Fisheries Research Laboratory, No. 26, November 1959, pp. 99-108.) Tokai Regional Fisheries Research Laboratory, Tsukishima, Chuo-ku, Tokyo, Japan.

Bulletin of Tokai Regional Fisheries Research Laboratory, No. 26, November 1959, 108 pp., illus., printed in Japanese with English abstracts. Tokai

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

Regional Fisheries Research Laboratory, Tsukishima, Chuo-ku, Tokyo, Japan. Includes, among others, these articles: "On the Yearly Fluctuation in Availability of the Sardine, *Sardinops melanosticta*, Population Caught by Drift Net in the Western Part of the Japan Sea," by T. Doi; "Two-Boat-Purse Seine Fishery and the Age Composition of the Anchovy Catch in the Area Extending Between Kujukuri Hama and Kashima Nada, 1953 Through 1956," by S. Hayashi and K. Kon-do; "Effects of Gamma Irradiation on the Quality and Storage of Fish," by K. Amano and K. Yamada; "Studies on the Vitamin Oil Extraction. I--Loss of Vitamin A in the Alkali Digestion Method," by H. Higashi, T. Yamakawa, and Y. Shimoda; "Study on Alkali Digestion for Producing Vitamin Oil from Fish Livers," by H. Higashi, Y. Shimada, and H. Taguchi; and "An Attempt for Estimating Time of Dragnet Fishing from Freshness of the Catch," by T. Suzuki.

Bulletin of Tokai Regional Fisheries Research Laboratory, no. 27, February 1960, pp. 41-72, illus., printed in Japanese with English abstracts. Tokai Regional Fisheries Research Laboratory, Tsukishima, Chuo-ku, Tokyo, Japan. Includes, among others, these articles: "Studies on the Extraction of Vitamin Oil. II--Comparative Effect of Soy Bean Oil and Pollack Liver Oil as the Pick-Up Oil," by H. Higashi, K. Yamakawa, and N. Maita; "Studies on the Browning of Irradiated Fish. I--Effect of Presence of Free Sugar on the Browning of Fish Flesh," by K. Yamada and K. Amano; and "Nutritive Elements of Fish Meal and Solubles Produced in Various Countries," by S. Murayama and M. Yanase.

Enhancing Effect of Starch on Jelly Strength of Fish Meat Jelly. II--Effect of Amylose and Amylopectin, by Minoru Okada and Atsuko Yamazaki, 8 pp., illus., printed in Japanese with English abstract. (Reprinted from Bulletin of the Japanese Society of Scientific Fisheries, vol. 23, nos. 7 & 8, November 1957, pp. 476-482.) Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori 6-chome, Tokyo, Japan.

Influence of Cooking Conditions on the Jelly Strength of Kamaboko, by Minoru Okada, 7 pp., illus., printed in Japanese with English abstract. (Reprinted from Bulletin of Tokai Regional Fisheries Research Laboratory, No. 24, June 1959, pp. 73-79.) Tokai Regional Fisheries Research Laboratory, Tsukishima, Chuo-ku, Tokyo, Japan.

Influence of Urea Upon the Binding of Some Ionic Dyes to Proteins, by Masao Migita and Shigeo Otake, 8 pp., illus., printed in Japanese with English abstract. (Reprinted from Bulletin of the Japanese Society of Scientific Fisheries, vol. 24, no. 8, December 1958, pp. 663-670.) Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori 6-chome, Tokyo, Japan.

Utilization of Discarded Trawl Catches as Feed for Livestock, by H. Higashi and others, 26 pp., illus., printed in Japanese with English abstract. (Reprinted from Bulletin of Tokai Regional Fisheries Research Laboratory, no. 18, October 1957, pp. 47-72.) Tokai Regional Fisheries Research Laboratory, Tsukishima, Chuo-ku, Tokyo, Japan.

JAVA:

Fish Production and Consumption in West Java, by Rabdul Pahari, Occasional Paper No. 59/6, processed. Indo-Pacific Fisheries Council, Food and Agriculture Organization of the United Nations, Bangkok, Thailand, 1959.

LAW OF THE SEA CONFERENCE:

"Second International Conference on the Law of the Sea," by J.P.A. Francois, article, United Nations Review, vol. 6, no. 12, June 1960, pp. 12-14, printed. International Documents Service, Columbia University Press, 2960 Broadway, New York 27, N. Y.

MARINE ALGAE:

Economic Marine Algae of Tropical South and East Asia and Their Utilization, by J. S. Zaneveld, Special Publication No. 3, 55 pp., printed. Indo-Pacific Fisheries Council, Food and Agriculture Organization of the United Nations, Bangkok, Thailand, 1955.

Journal of the Marine Biological Association of the United Kingdom, vol. 39, no. 2, June 1960, pp. 153-416, illus., printed, \$10.50. Journal of the Marine Biological Association, Cambridge University Press, 32 E. 57th St., New York 22, N. Y. Contains, among others, the following articles: "Studies on Marine Algae of the British Isles: the Genus *Ceramium*," by Peter S. Dixon; and "Studies on Marine Algae of the British Isles: *Ceramium shuttleworthianum* (Kütz.) Silva," by Peter S. Dixon.

MARINE BIOLOGY:

Marine Biology: Twentieth Annual Biology Colloquium, 1959, by Ivan Pratt and James E. McCauley, 96 pp., illus., printed, \$2.50. Oregon State College, Corvallis, Oreg., 1960.

MARINE CLIMATIC ATLAS:

U. S. Navy Marine Climatic Atlas of the World, vol. 1, North Atlantic Ocean, no. 17N, 275 pp., 1955, \$8; vol. 2, North Pacific Ocean, no. 18N, 275 pp., 1957, \$8; vol. 4, South Atlantic Ocean, no. 20N, 267 pp., 1958, \$8.50; and vol. 5, South Pacific Ocean, no. 21N, 267 pp., 1960, \$8. U. S. Navy, Washington, D. C. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Four volumes of a marine climatic atlas, presenting meteorological information for the surface and upper air over the oceans.

MENHADEN:

"Menhaden--Our Largest Commercial Catch," article Monthly Review, Federal Reserve Bank of Richmond, August 1960, pp. 2-5, illus., printed. Federal Reserve Bank of Richmond, Richmond, Va. Covers briefly the economic significance of the menhaden industry, the uses of menhaden products, method of landing, processing the catch, and problems and progress of the industry in recent years. Discusses the use of scouting planes for locating the schools, the use of the power block on the vessels, and the use of refrigeration.

MICRONESIA:

Fishes of the Marshall and Mariana Islands, vol. 2: Families from MULLIDAE through STROMATEIDAE, by Leonard P. Schultz and others, U. S. National

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

Museum Bulletin 202, 438 pp., illus., printed, \$2.25. Smithsonian Institution, Washington, D. C. (Available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.)

MILKFISH:

Synopsis of Biological Data on Milkfish CHANOS CHANOS (Forsk.) by W. H. Schuster, Occasional Paper No. 59/3, processed. Indo-Pacific Fisheries Council, Food and Agriculture Organization of the United Nations, Bangkok, Thailand, 1959.

NEW ZEALAND:

Report of the Marine Department for the Year Ended 31 March 1960, 85 pp., printed. Marine Department, Wellington, New Zealand, 1960. Covers the activities and accomplishments of the Marine Department, including a report on fisheries for 1959. The latter discusses the quantity and value of spiny lobster and fish landings, fishing vessels, total landings at various ports, foreign trade in fishery products, and fish-liver oil production. It also discusses the whaling season, rock- and dredged-oyster landings, fresh-water and marine fisheries research. Fishing Industry Advisory Council, and fishery legislation. All data are for the calendar year 1959.

NORTH AMERICA:

Fishes from the United States and Canada (second edition), by Reeve M. Bailey, 102 pp., printed, paper \$1. Librarian, American Fisheries Society, Colorado A. & M. College, Fort Collins, Colo. Revised and enlarged list of accepted common names, occurrence, and scientific names, fully indexed.

NORTH ATLANTIC:

"Perspektivy Razvitiya Rybolovstva v Severnoi Atlantikie" (Fishing Prospects in the North Atlantic), by I. I. Marti, article, Rybnoe Khoziaistvo, vol. 35, no. 4, 1959, pp. 3-8, illus., printed in Russian. Rybnoe Khoziaistvo, VNIRO Glavniproekta, pri Gosplanie SSR, Moscow, U.S.S.R.

NORWAY:

Vekslinger i Forekomsten av Forskjellige Fiskeslag pa Skagerakkysten (Fluctuations in the Abundance of Some Fishes on the Norwegian Skaggerack Coast), by Alf Dannevig, Fiskeridirektoratets Skrifter, Serie Fiskeri, vol. 4, no. 3, 29 pp., illus., printed in Norwegian with English summary. A/S John Griegs Boktrykkeri, Bergen, Norway, 1959.

OCEAN PERCH:

"Incidence and Distribution of Infestation by Sphyrion lumpi (Kroyer) on the Redfish, Sebastes marinus (L.), of the Western North Atlantic, by Wilfred Templeman and H. J. Squires, article, Journal of the Fisheries Research Board of Canada, vol. 17, January 1960, pp. 9-31, printed. Queen's Printer and Controller of Stationery, Ottawa, Canada.

OCEANOGRAPHY:

Oceanography in Canada, 1957-60, by H. B. Hachey, Fisheries Research Board of Canada, printed. Queen's Printer and Controller of Stationery, Ottawa, Canada.

Under the Deep Oceans: Twentieth Century Voyages of Discovery, by T. F. Gaskell, 240 pp., illus., printed, \$3.95. W. W. Norton & Co. 101 Fifth Ave., New York 3, N. Y.

PACKAGING:

"Quelques Aspects du Probleme de l'Emballage des Denrees Alimentaires Sterilisees par les Radiations Ionisantes" (Some Aspects of the Problem of Packaging Foodstuffs Sterilized by Ionizing Radiations), by L. Brunelet and P. Vidal, article, Revue Generale du Froid, vol. 35, no. 7, 1958, pp. 681-685, printed in French. Association Nationale des Ingenieurs et Techniciens du Froid et des Industries Connexes, 129 Boulevard St. Germain, Paris, France.

PLANKTON:

Plankton Pigments in Australian Waters, by G. F. Humphrey, Division of Fisheries and Oceanography, Technical Paper No. 9, 27 pp., illus., printed. Commonwealth Scientific and Industrial Research Organization, 314 Albert St., E. Melbourne C2, Australia, 1960.

POLAND:

"Polish Sea Fishing," by Andrezej Ropelewski, article, Studies and Monographs, Western and Northern Territories of Poland--Maritime Problems, April 1960, pp. 33-44, illus., printed. Department of Studies and Monographs, Nowy Swiat 27, Warsaw, Poland. Discusses the history of Polish marine fisheries and their expansion after World War I, losses to the fisheries during World War II, restoration and reconstruction, increases in annual catch since 1946, Government aid to the fisheries, and the present fisheries, and the present fishing fleet. Also covers the ownership of the fishing fleet, employment in the fisheries, training of fishing crews, fresh-water fisheries, consumption, and prospects of future development of Polish fisheries. Included are a number of tables and graphs showing fish catches, vessels, and consumption of fishery products.

PORTUGAL:

Boletim da Pesca, vol. 13, no. 67, June 1960, 134 pp., illus., printed in Portuguese. Gabinete de Estudos das Pescas, R. S. Bento, 644, 4^o-Esq., Lisbon, Portugal. Contains, among others, the following articles: "Consideracoes Sobre a Industria do Peixe Fresco na Metropole e em Angola" (Observations on the Fresh Fish Industry of Portugal and Angola), by C. Fernando Costa; and "Biologia Marinha no Grande Nordeste Brasileiro" (Marine Biology in the Area off Northeast Brazil), by Rui Simoes de Meneses.

"A Economia das Pescas em Portugal, a Industria de Conservas de Peixe" (Portuguese Fisheries Economics with Reference to Canned Fish), by Salviano Cruz, article, A Revista de Pesquisas Economico-Sociais, vol. 4, nos. 1-6, January-June 1955, 316 pp., plus 32 maps and charts, illus., printed in Portuguese. Estudos-Economico-Sociais, Avenida Sidonio Pais, 4-5^o, 3-E, Lisbon, Portugal, 1958.

PRESERVATION:

Torry Research Station Annual Report 1959, Handling and Preservation of Fish, 36 pp., printed, 2s. 6d. (about 35 U. S. cents). Her Majesty's Stationery Office, 13A Castle St., Edinburgh 2, Scotland, 1960. Describes accomplishments in research during 1959 on improvement in quality of iced fish, freezing and cold storage, smoke curing, drying, canning, and fishery byproducts. Includes work on assessment of freshness of fish, preservative ices, jacketed cold stores, smoke deposition, "browning" of dehydrated and salted fish, reduction of free liquor in herring packs, fish-meal pilot plants, bacteriology of ice, fish muscle proteins, and many others.

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

RADIOACTIVITY:

Study of Possible Relationship between Radioactivity and Toxicity in Fishes from Central Pacific, by Philip Helfrich, 18 pp., processed, 50 cents. Marine Biology Laboratory, University of Hawaii, Honolulu, Hawaii, May 1960.

REFRIGERATED SEA WATER:

"Sodium Ion, Potassium Ion, and Weight Changes in Fish Held in Refrigerated Sea Water and Other Solutions," by Robert A. MacLeod, R.E.E. Jonas, and J. R. McBride, article, Journal of Agricultural and Food Chemistry, vol. 8, March-April 1960, pp. 132-136, printed. Journal of Agricultural and Food Chemistry, American Chemical Society, 1801 K St., NW., Washington 6, D. C.

REFRIGERATION:

"Performance Test of the Refrigerating Plant of Moderate Size Trawlers," by A. Dobrovolskii, article Kholodil'naia Tekhnika, no. 3, 1960, pp. 24-28, illus., printed in Russian with short English summary. Kholodil'naia Tekhnika, c/o Four Continent Book Corp., 822 Broadway, New York 3, N. Y.

"Recommended Conditions for Cold Storage of Perishable Foodstuffs. III--Fish and Crustaceans: Chilled Storage," article, Bulletin of the International Institute of Refrigeration, Annex, 1959, pp. 46-49, printed in French and English. International Institute of Refrigeration, 177 Boulevard Malesherbes, Paris, France.

SALMON:

"Biochemical Studies on Sockeye Salmon During Spawning Migration. IX--Fat, Protein, and Water in the Major Internal Organs and Cholesterol in the Liver and Gonads of the Standard Fish," by D. R. Idler and I. Bitners, article, Journal of the Fisheries Research Board of Canada, vol. 17, January 1960, pp. 113-122, printed. Queen's Printer and Controller of Stationery, Ottawa, Canada.

"Investigation and Management of Atlantic Salmon in 1959-60," articles, Trade News, vol. 12, no. 12, June 1960, pp. 3-16, illus., processed. Information and Educational Service, Department of Fisheries, Ottawa, Canada. "Part 1--The Research Programme," by C. J. Kerswill, covers availability of adult salmon, migrations and homing, production of young salmon, environmental changes, and behavior studies. Also included are several tables and charts depicting the commercial and sports fishery catches of salmon in eastern Canada in recent years. "Part 2--The Management Programme," discusses the salmon management effort in the Newfoundland, Quebec, and Maritime areas of eastern Canada. This includes projects such as studies on proposed hydro-electric development, stream improvement, stationery net licensing, construction of fishways, pollution control, and hatchery-spawning and rearing of young salmon.

The Salmon, by J. W. Jones, 206 pp., illus., printed. N. M. N. Collins, St. James Place, London, England, 1959.

SALT FISH:

"The Factors Impeding and Accelerating the Process of Rusting of Salted Fish," by E. A. Mel'nikova,

article, Voprosy Pitaniya, vol. 17, no. 5, 1958, pp. 59-63, printed in Russian. Voprosy Pitaniya, Gosudarstvennoe Izdatel'stvo Meditsinskoi Literatury, Moscow, U.S.S.R.

"The Preservation of Salted Fish and Packaging with Polyethylene," by R. Lafont, article, Indo-Pacific Fisheries Council Proceedings, 6th Session, 1955, p. 287, printed in French. Indo-Pacific Fisheries Council Secretariat, Food and Agriculture Organization of the United Nations, Regional Office for Asia and the Far East, Bangkok, Thailand, 1956.

SAND LAUNCE:

"Our North Sea Dilemma--The Sand Eel Story--Part I," article, World Fishing, vol. 9, no. 7, July 1960, pp. 30-32, illus., printed. John Trundell (Publishers), Ltd., St. Richards House, Eversholt St., London NW1, England. A discussion, in the form of questions and answers, of the characteristics of the sand eel or sand launce, their location and distribution, life cycle and feeding habits, natural enemies, method of landing, nations engaged in the fishery, volume of annual catch, and catching season. A forthcoming article will discuss the future outlook of the sand eel fishery.

SANITATION:

"Plant Sanitation in Frozen Foods--A Management Attitude," by Albert W. Emery, article, Quick Frozen Foods, vol. 22, February 1960, pp. 40-41, 156, printed. Quick Frozen Foods, E. W. Williams Publications, Inc., 82 Wall St., New York 5, N. Y.

SARDINES:

La Peche Maritime, vol. 39, no. 988, July 1960, 64 pp., illus., printed in French. La Peche Maritime, 190 Boulevard Haussmann, Paris, France. Contains the following articles on the sardine industry: "L'Evolution du Port de Douarnenez" (The Development of the Port of Douarnenez); "L'Evolution de l'Industrie Portugaise de la Sardine (The Development of the Portuguese Sardine Industry); "Safi, Premier Port Sardinier d'Afrique" (Safi, Principal African Sardine Fishery Port), by A. Meunier; and "L'Industrie de la Conserve Espagnole ne Craint pas Son Entree dans le Marche Commun" (The Spanish Canning Industry is not Apprehensive of Entering into the Common Market).

SEAWEEDS:

Chemical Studies on Seaweeds. I--Chemical Constituents of "Asakusanori" of Various Sources, by Takeshige Yamakawa, 5 pp., illus., printed in Japanese with English abstract. (Reprinted from Bulletin of the Japanese Society of Scientific Fisheries, vol. 18, no. 10, 1953, pp. 478-482.) Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori 6-chome, Tokyo, Japan.

"Dulse Harvest," by G. J. Gillespie, article, Trade News, vol. 13, no. 1, July 1960, pp. 6-7, illus., processed. Information and Educational Service, Department of Fisheries, Ottawa, Canada. Describes the harvest of dulse, a seaweed, from the shores of Dark Harbour, Grand Manan Island, at the mouth of the Bay of Fundy. Gathered from the rocks along the lagoon's shoreline, the dulse is spread to dry in the sun, rolled up like a carpet, and then packed in bags for shipping to distributors. This seaweed is high in

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

protein and mineral content and brings as much as 43 cents a pound, helping to bolster the economy of the Island.

SHRIMP:

"Essayons d'Augmenter en France la Peche a la Crevette" (Let Us Try to Develop Shrimp Fishing in France), by Robert Lenier, article, France Peche, vol. 5, no. 42, July-August 1960, pp. 17-24, illus., printed in French with English summary. France Peche, Tour Sud-Est, rue de Guemene, Lorient, France.

SINGAPORE:

Report of the Fisheries Division 1958, 29 pp., printed. Fisheries Division, Ministry of Commerce and Industry, Singapore. Reviews the achievements of the Fisheries Division during 1958 and discusses development of brackish-water shrimp ponds, the fisheries loan fund, the fisheries mobile unit, the apprenticeship training scheme, and the prospects for a trawl fishing industry. Also covers an inventory of the industry--manpower, licensed fishing boats, and gear, and pond cultivation of fish; fresh fish supplies--gross landings, local production, and imports and exports of fresh fish; fresh fish prices; trade in dried salt fish and other marine products; and cost of fishing material. A large portion of the report is devoted to statistical tables showing number of fishermen, licensed vessels and gear, fresh fish supplies, foreign trade in fishery products, and other pertinent data.

SMALL BUSINESS:

Providing Capital for Your Firm, by Nathaniel C. Berkowitz, Management Aids for Small Manufacturers No. 115, 4 pp., printed. Small Business Administration, Washington 25, D. C., June 1960. Suggestions on providing capital for a small business are outlined in this leaflet. A firm's need for cash may suddenly be critical. Without it, a company may lose an opportunity or head for serious trouble. So it is vital that management be aware of sources of funds. Some of the things to be considered in looking for capital are: streamlining internal operations, tightening up trade relationships, selling excess assets, factoring (selling accounts receivable), borrowing from financing organizations, and taking a partner or selling stock. A list of references is included.

SOFT-SHELL CLAM:

A Partial Bibliography of the Soft Shell Clam, MYA ARENARIA L., by Hayes T. Pfitzenmeyer and Carl N. Shuster, Jr., Contribution No. 123, 29 pp., illus., printed. Maryland Department of Research and Education, Chesapeake Biological Laboratory, Solomons, Md. January 1960. In recent years a serious decline in the production of the soft-shell clam in New England and the establishment of a fishery in the State of Maryland have created a need for more concentrated scientific study of this species. As an aid to biological research, these literature citations were compiled as a preliminary step to a more complete annotated bibliography.

SPAIN:

"La Pesca de la Gamba y de la Langosta" (The Shrimp and Spiny Lobster Fisheries), by Miguel Massuti Oliver, article, Puntal, vol. 7, no. 75, June 1960, pp. 7-11, illus., printed in Spanish. Puntal, Apartado de Correos 316, Alicante, Spain.

SPERM WHALES:

"On the Stocks of Sperm Whales (Physeter catodon) in the Antarctic," by Age Jonsgard, article, Norsk Hvalfangst-Tidende (The Norwegian Whaling Gazette), vol. 49, no. 7, July 1960, pp. 289-299, illus., printed in Norwegian and English. Norsk Hvalfangst-Tidende, Sandefjord, Norway. Discusses the changes in the size distribution of sperm whale stocks in the Antarctic in recent years and the changes in the catch per unit of effort. Also discusses possible causes for the changes in the size composition of sperm whales--seasonal changes, geographical changes, selective catching, increased whaling effort, and special conditions relating to migration.

SPINY LOBSTER:

"Que Va Devenir le Marche de la Langouste?" (What is Going to Happen to the Spiny-Lobster Market?), article, France Peche, vol. 5, no. 42, July-August 1960, p. 35, printed in French. France Peche, Tour Sud-Est, rue de Guemene, Lorient, France.

SQUID:

"Studies on Processing Squid Meat," by T. Takahashi and M. Takei, article, Bulletin of Tokai Regional Fisheries Research Laboratory, no. 14, September 1956, pp. 31-90, illus., printed in Japanese with English abstract. Tokai Regional Fisheries Research Laboratory, Tsukushima, Chuo-ku, Tokyo, Japan.

On the Toughness of Boiled Squid Meat, by Toyo-o Takahashi and Makoto Takei, 5 pp., illus., printed in Japanese with English summary. (Reprinted from Bulletin of the Japanese Society of Scientific Fisheries, vol. 20, no. 11, March 1955, pp. 1015-1019.) Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori 6-chome, Tokyo, Japan.

STEELHEAD TROUT:

Scale Analysis of Steelhead Trout, SALMO GAIRDNERII GAIRDNERII Richardson, from Various Coastal Watersheds of Oregon (Thesis of John Morton Bali for the Master of Science Degree in Fisheries), 203 pp., illus., processed, not for general distribution. Department of Fish and Game Management, Oregon State College, Corvallis, Ore., July 1958.

Studies of Age, Growth, and Migration of Steelhead Trout, SALMO GAIRDNERII GAIRDNERII, in the Alsea River, Oregon (Thesis of Donald Wallace Chapman for the Master of Science Degree in Fish and Game Management), 106 pp., illus., processed, not for general distribution. Department of Fish and Game Management, Oregon State College, Corvallis, Ore., April 1957.

STICKWATER:

"Stickwater Vitamins," by J. S. Dunn, article, South African Shipping News and Fishing Industry Review, vol. 14, no. 6, 1959, pp. 64-65, printed. South African Shipping News and Fishing Industry Review, Odhams Press, S. Africa (Pty) Ltd., P. O. Box 2598, Cape Town, Union of South Africa.

SURINAM:

The Fishermen of Surinam, by Kalervo Oberg and Frank van Kijk, 66 pp., illus., processed. Surinam-American Technical Cooperative Service, Paramaribo, Surinam, April 1960. Contains a general summary.

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

of Surinam fisheries and then discusses in detail the industry in each of 6 areas--Paramaribo, Nickerie, Coppername Point, Matapica, Albina, and Coronie. The first part outlines the two major types of fishing--the older traditional system of inshore fisheries, in which the majority of the fishermen are engaged, and the very recent system of offshore fisheries in which modern trawlers are engaged. Emphasis is placed on kinds of gear used, the methods of fishing, the living conditions of the people, and the values and interests which motivate the fishermen. This report is intended to contribute towards the planning of a realistic extension program for fishermen. The aim of the fisheries development program is to double the annual catch of 4,000 tons by 1965. The report concludes with a number of tables showing the fishing grounds used in the traditional system of inshore fisheries, distribution of fishing operators by area and type of fishing, distribution of fishing operators by ethnic origin, and other pertinent data.

TAGGED FISH:

"Recaptures of Tuna, Marlin, and Sailfish Tagged in the Western North Atlantic," by Frank J. Mather, III, article, Copeia, no. 2, June 29, 1960, pp. 149-151, printed. American Society of Ichthyologists and Herpetologists, 34th St. and Girard Ave., Philadelphia 4, Pa.

TRADE AGREEMENTS:

Fourth Annual Report on the Trade Agreements Program, 86th Congress, 2d Session, House Document No. 447, 119 pp., processed. The White House, Washington, D. C., July 1960. (Available from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.) The following subjects are discussed: (1) international trade in 1959; (2) removal of restrictions against U. S. exports; (3) trade agreements program and the GATT; (4) regional integration; (5) safeguarding procedures of the trade agreements program; and (6) United States tariff negotiations. Also includes a report on relaxation of quantitative restrictions against United States exports and reports to the Secretary of State by the Chairman of the United States Delegation to the Fourteenth and Fifteenth Sessions of the Contracting Parties to the General Agreement on Tariffs and Trade.

TRAWLING:

"An Experiment on a Mid-Water Trawl. VI--Practical Fishing Experiment," by Kiichiro Kobayashi and Naoichi Inoue, article, Bulletin of the Faculty of Fisheries, Hokkaido University, vol. 10, May 1959, pp. 15-30, illus., printed in Japanese with English abstract. Faculty of Fisheries, Hokkaido University, Hakodate, Japan.

"Studies on the Kinematic Behavior of the Ground Rope of the Trawl Net. I," by Tasaie Kawakami and Otchiko Suzuki, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 25, October 1959, pp. 413-416, printed. Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori 6-chome, Tokyo, Japan.

"A Study on the Fishing Efficiency of the Otter Trawl and the Two-Boat Trawl in Operation by the Shape

of Their Net," by Chikamasa Hamuro, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 25, June 1959, pp. 103-110, illus., printed in Japanese with English abstract. Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori 6-chome, Tokyo, Japan.

TROUT:

"Holdbarhedsproblemer ved Ispakning af Damorreder" (Icing of Trout), by P. Hansen, article, Ferskvandsfiskeribladet, vol. 57, no. 3, 1959, pp. 34-38, illus., printed in Danish. Ferskvandsfiskeribladet, Frederiksdal, Kgs., Lyngby, Denmark.

Some Physical and Mechanical Factors Important in Reducing Delayed Mortality of Hatchery Reared Rainbow Trout (Thesis of Howard Franklin Horton for the Master of Science Degree in Fisheries), 60 pp., illus., processed, not for general distribution. Department of Fish and Game Management, Oregon State College, Corvallis, Oreg., May 1955.

TUNA:

"Larval Tunas from the Florida Current," by W. L. Klawe, article, Bulletin of Marine Science of the Gulf and Caribbean, vol. 10, no. 2, June 1960, pp. 227-233, illus., printed. The Marine Laboratory, University of Miami, 1 Rickenbacker Causeway, Virginia Key, Miami 49, Fla.

La Peche Maritime, vol. 39, no. 988, July 1960, 64 pp., illus., printed in French. La Peche Maritime, 190 Boulevard Haussmann, Paris, France. Contains the following articles on the tuna industry of Senegal: "Regards sur la Campagne 1959/1960 a Dakar" (Observations on the 1959/1960 Season at Dakar), by Jehan Ichtus; and "Les Conceptions du Senegal en Matiere de Conservation du Thon" (The Senegal Concepts on the Subject of Tuna Conservation), by M.J. Arnoux.

Some Experiments on Tuna Fishing with a New Method in the Indonesian Waters, by Mohammad Unar, Occasional Paper No. 59/8, processed. Indo-Pacific Fisheries Council, Food and Agriculture Organization of the United Nations, Bangkok, Thailand, 1959.

UNION OF SOUTH AFRICA:

The South African Pilchard (SARDINOPS OCELLATA) and Maasbanker (TRACHURUS TRACHURUS), Hydrographical Environment and the Commercial Catches, 1950-57, by M.E.L. Buys, Division of Fisheries Investigational Report No. 37, 176 pp., illus., printed. (Reprinted from Commerce & Industry, July 1959.) The Government Printer, Pretoria, Union of South Africa, 1959.

UNITED KINGDOM:

Herring Industry Board, Twenty-Fifth Annual Report, 1959, 54 pp., illus., printed, 3s. (about 42 U. S. cents). Her Majesty's Stationery Office, York House, Kingsway, London WC2, England, March 1960. Reports on the state of the herring fisheries of the North Sea; commercial and statutory arrangements between or concerning the Herring Industry Board, the catches, and the shore-based sections of the industry; marketing; production, research, and development; and related subjects. Contains statistical tables showing

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

the landings and value of catches and disposal of landings during the winter, summer, and autumn seasons; composition and distribution of fleets in East Anglia; curing strength and production of cured herring; imports of fresh and frozen herring; disposal of the United Kingdom's total herring landings, excluding imports; and applications for grants and loans. The appendix consists of a summary of pertinent directions having seasonal effect which were issued during 1959. The report mentions the new International Fisheries Convention, signed by the United Kingdom early in 1959. This Convention will allow the introduction of such measures of conservation as may be agreed to be necessary to ensure that the internationally-exploited European herring fisheries are managed to the best advantage of all concerned.

UNITED KINGDOM:

"Problems and Trends in the Fish Industry. I," by C. L. Cutting, article, *Food Manufacture*, vol. 34, no. 7, 1959, pp. 281-283, printed. Food Manufacture, Leonard Hill Ltd., Eden St., London NW1, England.

Seals and Scottish Fisheries, by Bennet B. Rae, *Marine Research No. 2*, 1960, 39 pp., illus., printed, 15s. 0d. (about US\$2.10). Department of Agriculture and Fisheries for Scotland, Aberdeen, Scotland, 1960. (Available from Her Majesty's Stationery Office, 13A Castle St., Edinburgh 2, Scotland.) A brief historical account is given from the passing of the Grey Seals Protection Act in 1914 to the present time. The numbers, distribution, and food of the common and grey seals are studied. Claims by fishermen of destruction to salmon fisheries are examined as well as the effect of seals on marine fisheries. The harmful effect on fish, particularly cod, by the spread of a larval, parasitic worm and its correlation with the occurrence of large seal populations is discussed. The case for the conservation of seals is reviewed and recommendations made for a reduction in seal stocks.

The Temperature of British Fish During Distribution in Summer, by G. H. O. Burgess and others, *Torry Technical Paper No. 1*, 59 pp., illus., printed, 3s 6d (about 49 U. S. cents). Her Majesty's Stationery Office, 13A Castle St., Edinburgh 2, Scotland, 1959.

U.S.S.R.:

"Fishery Research in Russia," article, *World Fishing*, vol. 9, no. 7, July 1960, pp. 22-23, illus., printed. John Trundell (Publishers) Ltd., St. Richards House, Eversholt St., London NW1, England.

VESSELS:

"The Measurement of Fishing Power and Its Relation to the Characteristics of Vessels," by B. B. Parrish and R. S. Keir, article, *Current Affairs Bulletin*, no. 27, April 1960, pp. 1-9, printed. Indo-Pacific Fisheries Council, Food and Agriculture Organization of the United Nations, Bangkok, Thailand. Defines the fishing power of a fishing unit and describes how it is measured by comparative fishing trials and analysis of catch and effort statistics. The results obtained in correlating fishing power with measurable characteristics of the craft are briefly summarized and the uses to which this information is put for purposes of resource assessment and management are outlined. Needs for future studies are discussed.

VITAMIN A:

"Estimation of the Biological Potency of Vitamin A Sources from Their Maleic Values," by Stanley R. Ames and Robert W. Lehman, article, *Journal of the Association of Official Agricultural Chemists*, vol. 43, February 1960, pp. 21-25, printed. Association of Official Agricultural Chemists, P. O. Box 540, Benjamin Franklin Station, Washington, D. C.

Studies on the Economical Manufacture of Vitamin A Concentrate from Fish Liver Oil:

Part I--Molecular Distillation of Modified Oil, by Hideo Higashi, Yaichiro Shimma, and Toyosuke Kinumaki, vol. 20, no. 4, August 1954, pp. 328-336, illus.;

Part II--Concentration of Vitamin A by Saponification. 1--Reexamination of Takahashi's Method, by Yaichiro Shimma and Toyosuke Kinumaki, vol. 20, no. 4, August 1954, pp. 337-343, illus.;

Part III--Concentration of Vitamin A by Saponification. 2--Precipitating Method, by Yaichiro Shimma and Toyosuke Kinumaki, vol. 20, no. 6, October 1954, pp. 551-556, illus.;

Part IV--Application of Urea Complex in the Concentration of Vitamin A, by Hideo Higashi, Takeshige Yamakawa, and Toyosuke Kinumaki, vol. 20, no. 6, October 1954, pp. 557-562, illus.;

Part V--Concentration of Vitamin A by Saponification. 3--Liquid-Liquid Extraction (part a), by Yaichiro Shimma and Ryo Kikuchi, vol. 20, no. 7, November 1954, pp. 653-657;

Part VI--Esterification of Vitamin A Concentrate. 1--Acetylation and Palmitylation with Acid Chloride, by Toyosuke Kinumaki, vol. 20, no. 11, March 1955, pp. 1027-1034;

Part VII--Esterification of Vitamin A Concentrate. 2--Acetylation with Ketene, by Hideo Higashi and Toyosuke Kinumaki, vol. 22, no. 8, December 1956, pp. 500-503, illus.;

Part VIII--Chromatographical Separation of Vitamin Concentrate, by Yaichiro Shimma and Minoru Tanaka, vol. 25, no. 1, May 1959, pp. 52-58, illus.;

Part IX--Purification of Vitamin A Concentrate with Methanol, by Hideo Higashi and others, vol. 25, no. 1, May 1959, pp. 59-66, illus.;

Part X--Adsorption by Weakened Acid Clay, by Hideo Higashi and others, vol. 25, no. 3, July 1959, pp. 196-203, illus. (Reprinted from *Bulletin of the Japanese Society of Scientific Fisheries*.) All printed in Japanese with English abstracts. Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori 6-chome, Tokyo, Japan.

Studies on the Vitamin Oil Extraction. I--Loss of Vitamin A in the Alkali Digestion Method, by H. Higashi, T. Yamakawa, and Y. Shimoda, 5 pp., illus. printed in Japanese with English abstract. (Reprinted from *Bulletin of Tokai Regional Fisheries Research Laboratory*, No. 26, November 1959, pp. 69-73.) Tokai Regional Fisheries Research Laboratory, Tsukishima, Chuo-ku, Tokyo, Japan.

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

November 1959, pp. 69-73.) Tokai Regional Fisheries Research Laboratory, Tsukishima, Chuo-ku, Tokyo, Japan.

VITAMIN OIL:

Study on Alkali Digestion for Producing Vitamin Oil from Fish Livers, by H. Higashi, Y. Shimma, and H. Taguchi, 13 pp., illus., printed in Japanese with English abstract. (Reprinted from Bulletin of Tokai Regional Fisheries Research Laboratory, No. 26, November 1959, pp. 75-87.) Tokai Regional Fisheries Research Laboratory, Tsukishima, Chuo-ku, Tokyo, Japan.

WATER MILFOIL:

Water Milfoil Invasion of Tidewater Areas, by G. Francis Beaven, Reference No. 60-28, 4 pp., processed. Maryland Department of Research and Education, Chesapeake Biological Laboratory, Solomons, Md., July 20, 1960.

WHALE-LIVER OILS:

Studies on the Molecular Distillation of Whale Liver Oils: Part I, vol. 18, no. 11, 1953, pp. 645-650, illus.; Part II, vol. 18, no. 12, 1953, pp. 675-682, illus., by Takeshige Yamakawa and Takajiro Mori; and Part III, by Takeshige Yamakawa, Shoji Konosu, and Takajiro Mori, vol. 19, no. 3, 1953, pp. 155-158, illus. (Reprinted from Bulletin of the Japanese Society of Scientific Fisheries.) All printed in Japanese with English abstract. Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori 6-chome, Tokyo, Japan.

WHALING:

International Whaling Statistics, no. XLIV, 52 pp., printed, kr. 2.00 (about 28 U. S. cents). The Committee for Whaling Statistics, Oslo, Norway, 1960. A report on the results of the Antarctic whaling season 1958/59. Includes statistical tables showing whaling in the Antarctic; results for the various countries; average size of whales caught; whales caught by species, sex, and size; and average production of oil per blue-whale unit. Also includes data on size of pregnant whale females caught; whale foetuses measured by species and groups of size; and whale foetuses measured by species and sex.

"Some Observations on the Development of Whaling and on Its Central Problem Today," by Frithjof Bettum, article, Norsk Hvalfangst-Tidende, vol. 49, no. 6, June 1960, pp. 245-256, 258, 261-262, 264-265, printed in Norwegian and English. Norsk Hvalfangst-Tidende, Sandefjord, Norway. The full text of a lecture on whaling delivered at Norway's University of Economics and Business Administration. The author discusses the history of international whaling in the Antarctic area, the extent of the area and its resources, and conservation of the stocks. He also discusses the adoption of the International Whaling Convention in 1946, operations of the Antarctic whaling industry under the Convention, negotiations towards quota restrictions, results of the 1959/60 season, and the economic importance of the Norwegian whaling industry.



NEW SHRIMP PRODUCT ON MARKET

The shrimp industry now has available a moderate-priced product which can be used in a variety of dishes.

This product consists of pieces of shrimp meat which become available during the shrimp canning and breading process. A major part of the production of breaded shrimp in the United States is now packed under USDI continuous inspection. The tolerance for broken or pieces of shrimp which may be packed under the Grade A label is very low and this results in a supply of pieces which are sold at a price lower than that charged for unbroken shrimp tails.

Since this is only a physical defect, it has no effect on freshness or wholesomeness. This is a situation analogous to the shelling of various types of nuts where the broken segments are sold at a lower price. It now becomes possible to use shrimp in low cost dishes especially in school lunches and other types of cafeteria meals for which formerly shrimp was too costly.

Bureau of Commercial Fisheries home economists and marketing specialists are now using this product in school-lunch and other fish-cookery demonstrations since the product is available nationally both canned and frozen.