



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 LISTS OF DEALERS IN AND PRODUCERS OF FISHERY PRODUCTS AND BYPRODUCTS.
 MNL - REPRINTS OF REPORTS ON FOREIGN FISHERIES.
 SSR - FISH - SPECIAL SCIENTIFIC REPORTS--FISHERIES (LIMITED DISTRIBUTION).
 SEP. - SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.

- | Number | Title |
|-------------------------------|--|
| CFS-2538 | - California Landings, December 1960, 5 pp. |
| CFS-2539 | - Wisconsin Landings, January 1961, 2 pp. |
| CFS-2545 | - Massachusetts Landings, December 1960, 6 pp. |
| CFS-2549 | - Georgia Landings, February 1961, 2 pp. |
| CFS-2552 | - Frozen Fish Report, March 1961, 8 pp. |
| CFS-2553 | - Fish Meal and Oil, February 1961, 2 pp. |
| CFS-2554 | - Rhode Island Landings, 1960 Annual Summary, 8 pp. |
| CFS-2555 | - Shrimp Landings, December 1960, 6 pp. |
| CFS-2556 | - New Jersey Landings, February 1961, 3 pp. |
| CFS-2558 | - Wisconsin Landings, February 1961, 2 pp. |
| CFS-2560 | - Maine Landings, February 1961, 3 pp. |
| CFS-2561 | - Rhode Island Landings, February 1961, 3 pp. |
| CFS-2562 | - Michigan Landings, February 1961, 2 pp. |
| CFS-2563 | - Mississippi Landings, January 1961, 2 pp. |
| CFS-2564 | - New York Landings, February 1961, 4 pp. |
| CFS-2565 | - Minnesota Landings, January and February 1961, 2 pp. |
| CFS-2567 | - Virginia Landings, February 1961, 3 pp. |
| CFS-2568 | - Maine Landings, 1960 Annual Summary, 6 pp. |
| CFS-2570 | - Texas Landings, January 1961, 3 pp. |
| CFS-2571 | - Fish Sticks and Portions, January-March 1961, 3 pp. |
| CFS-2574 | - Oregon Landings, 1960 Annual Summary, 2 pp. |
| CFS-2575 | - California Landings, January 1961, 4 pp. |
| CFS-2576 | - Mississippi Landings, February 1961, 2 pp. |
| CFS-2577 | - North Carolina Landings, March 1961, 4 pp. |
| CFS-2579 | - South Carolina Landings, March 1961, 2 pp. |
| CFS-2580 | - Georgia Landings, March 1961, 2 pp. |
| CFS-2581 | - Fish Meal and Oil, March 1961, 2 pp. |
| CFS-2587 | - Ohio Landings, March 1961, 2 pp. |
| CFS-2589 | - Alabama Landings, January 1961, 2 pp. |
| FL-147 (Revised January 1961) | - List of National Fish Hatcheries, 10 pp., processed. |

FL-993 - Fisheries of the United States, 1960 (A Preliminary Review), by E. A. Power, 70 pp., illus., revised April 1961. A preliminary review of commercial fishery activities, well illustrated with graphs and charts. In addition to data on production, consumption, prices, manufactured fishery products, value of industry and capital investments, and supplies of certain fishery products, this leaflet contains information on fishery imports and exports, and world fisheries.

SL-50 - Partial List of Wholesale Dealers in Fishery Products in Inland Cities with a Population of 50,000 and Over, 1959.

SL-162 - Firms Producing Fish Sticks and Portions, 1961 (Revised).

SSR-Fish. No. 372 - Relative Abundance of Plankton off Naples, Florida, and Associated Hydrographic Data, 1956-57, by Alexander Dragovich, 43 pp., illus., January 1961.

SSR-Fish. No. 374 - Zooplankton Volumes Off the Pacific Coast, 1958, by James R. Thraillkill, 72 pp., illus., January 1961.

Sep. No. 620 - Bottom Trawling Explorations off the Washington and British Columbia Coasts, May-August 1960.

Sep. No. 621 - Indexes of the Cost of Transportation for Fishery Products.

Fisheries Loan Fund, Fiscal Year 1958, Fish and Wildlife Circular 106, 7 pp., illus., processed. Covers the statistics of the fisheries, a review of the loan fund program, organization of the Office of Loans and Grants, status of the loan fund, and practical value of the program. Includes graphs showing number of loan applications, value of applications, and other similar data.

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-50 | - Preliminary Estimate of Commercial Fish Production, Province of Ontario, Canada, 1960. |
| MNL-51 | - Turkish Fisheries in the Marmara Area. |

THE FOLLOWING ENGLISH TRANSLATIONS OF FOREIGN LANGUAGE ARTICLES ARE AVAILABLE FROM THE U. S. FISH AND WILDLIFE SERVICE, BIOLOGICAL LABORATORY, BOOTHBAY HARBOR, ME.

Biological Groups of Murman Herring (CLUPEA HARENGUS HARENGUS) according to the Structure of Winter Rings on the Scales, by P. A. Murashkintseva, 21 pp., illus., processed, February 1960. (Translated from Russian, Trudy Polyarnyy Nauchno-Issledovatel'skiy Institut Morskogo Rybnogo Khozyaystva i Okeanografii, no. 1, 1938, pp. 74-87.)

Different Response in Male and Female Kil'ka CLUPEO-NELLA ENGRAULIFORMIS (Borodin) to Electric Light, by D. A. Shubnikov, 3 pp., processed, February 1960. (Translated from Russian, Zoologicheskii Zhurnal, vol. 38, no. 5, 1959, pp. 781-782.)

The Herring Fishery and Its Biological Studies, 156 pp., illus., processed, July 1960. (Translated from Japanese, Gyogyo Kagaku Sosho, no. 4, October 1952, 62 pp.)

Investigations of Herring Migrations in the Barents and Norwegian Seas, by I. V. Shutova-Korzh, 5 pp., illus., processed, February 1960. (Translated from Russian, Rybnoye Khozyaystvo, vol. 35, no. 2, 1959, pp. 5-8.)

Microsporidia GLUGEA HERTWIGI Weissenberg Found in Smelts of Lake Yulis-Yarvi, by E.A. Bogdanova, 1 p., processed. (Translated from Russian, Vsesoyuznogo Nauchno-Issledovatel'skogo Instituta Ozer-noga i Rechnogo Rybnogo Khoziaistva, Izvestiya, vol. 42, 1957, p. 330.)

Parasites of Clupeid Fishes in the Black Sea, by G. K. Petrushevskii, 21 pp., processed, March 1960. (Translated from Russian, Leningrad, Vsesoyuznogo Nauchno-Issledovatel'skogo Instituta Ozer-noga i Rechnogo Rybnogo Khoziaistva, Izvestiya, vol. 42, 1957, pp. 304-314.)

Supplementary Data on the Reaction of Herring to Electric Light, by D. P. Tikhonov, 3 pp., illus., processed, February 1960. (Translated from Russian, Rybnoye Khozyaystvo, vol. 35, no. 4, 1959, pp. 13-14.)

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

(Baltimore) Monthly Summary--Fishery Products, January and February 1961, 8 pp. each. (Market News Service, U. S. Fish and Wildlife Service, 400 E. Lombard St., Baltimore 2, Md.) Receipts of fresh- and salt-water fish and shellfish at Baltimore by species and by states and provinces; total receipts by species and comparisons with previous years; and wholesale prices on the Baltimore market; for the months indicated.

California Fishery Market News Monthly Summary, Part I - Fishery Products Production and Market Data, March 1961, 13 pp. (Market News Service, U. S. Fish and Wildlife Service, Post Office Bldg., San Pedro, Calif.) California receipts of the major fisheries (including tuna, mackerel, anchovies, and market fish) at leading ports; packs of major canned products; manufacture of byproducts; and wholesale prices for frozen and canned products; with comparative data; for the month indicated.

California Fishery Market News Monthly Summary, Part II - Fishing Information, April 1961, 8 pp., illus. (U. S. Bureau of Commercial Fisheries, Biological Laboratory, P. O. Box 6121, Pt. Lomas Station, San Diego 6, Calif.) Discusses the cruise during which scientists measured sea depth by the use of sonar; comments on the use of polaroid glasses in sighting schools of tuna; and presents topographic charts and sea-surface temperature charts, Eastern Pacific Ocean, April 1961; and other pertinent data; for the month indicated.

(Chicago) Monthly Summary of Chicago's Fresh and Frozen Fishery Products Receipts and Wholesale Market Prices, April 1961, 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.

A Fish and Wildlife Conservation Plan for the Boeuf and Tensas Rivers and Bayou Macon Project, Arkansas and Louisiana, a Unit of the Mississippi River and Tributaries Review, 28 pp., illus., processed, 1959. (U. S. Fish and Wildlife Service, Bureau of Sport Fisheries and Wildlife, Office of Regional Director, Peachtree-Seventh Bldg., Atlanta 23, Ga.)

Fishery Development Program of the Lower Columbia River, Report for Fiscal Year 1953, 89 pp., illus., processed. (U. S. Fish and Wildlife Service, Regional Director, Seattle, Wash.)

Future Developments in the Production and Utilization of Fish Meal (Report of the International Meeting on Fish Meal, FAO, Rome, March 20-29, 1961), 38 pp., processed. (Branch of Technology, Bureau of Commercial Fisheries, U. S. Fish and Wildlife Service, Washington 25, D. C.) A report on the future developments in the production and utilization of fish meal prepared for the International Meeting on Fish Meal, held in Rome on March 20-29, 1961. The meeting was convened by the Director-General of the Food and Agriculture Organization of the United Nations at the request of certain member governments. The meeting was called as a result of a rapid increase in the world's productive capacity for fish meal without the use being made of the product keeping pace with this expansion. Consequently, stocks of meal accumulated, prices fell substantially, and production had to be reduced in a number of countries. The purpose of the meeting was to assess the world demand for fish meal, both short and long term, in relation to resources and productive capacity; to consider ways and means of increasing the effective demand for fish meal by action on the part of governments and of the industry individually or in concert; and to explore possibilities of ensuring stable conditions in the international market for fish meal.

Monthly Summary of Fishery Products Production in Selected Areas of Virginia, North Carolina, and Maryland, April 1961, 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, March 1961, 22 pp. (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, by species landed at the Boston Fish Pier and sold through the New England Fish Exchange; for the month indicated.

New York City's Wholesale Fishery Trade--Monthly Summary for March 1961, 20 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.

Questions and Answers Regarding the Federal Wage-Hour Law Amendments of 1961 Affecting the Fishing Industry, ECML-6, 7 pp., processed, May 1961. (Branch of Economics, Bureau of Commercial Fisheries, U. S. Fish and Wildlife Service, Washington 25, D. C.) A list of questions and answers pertaining to the Federal Wage-Hour Law Amendments of 1961 as they affect the fishing industry. Some of these amendments make changes in the application of the Federal Wage and Hour Law to the fishing industry.

(Seattle) Washington, Oregon, and Alaska Receipts and Landings of Fishery Products for Selected Areas and Fisheries, Monthly Summary, April 1961, 9 pp. (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 (Ore.) wholesale dealers; also Northwest Pacific halibut landings; and Washington shrimp landings; for the month indicated.

Summary of Tagging Operations, July 1, 1959 through June 30, 1960, by Sterling L. Cogswell, 11 pp., processed. (U. S. Bureau of Commercial Fisheries, Biological Laboratory, Woods Hole, Mass.)

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

Embryological Stages in the Sea Lamprey and Effects of Temperature on Development, by George W. Pavis, Fishery Bulletin 182 (from Fishery Bulletin of the Fish and Wildlife Service, vol. 61), 37 pp., illus., printed, 30 cents, 1961.

Filefishes (Monacanthidae) of the Western North Atlantic, by Frederick H. Berry and Louis E. Voegelé, Fishery Bulletin 181 (from Fishery Bulletin of the

Fish and Wildlife Service, vol. 61), 53 pp., illus., printed, 40 cents, 1961.

"An Improved Instrument to Section Bones for Age and Growth Determinations of Fish," by Arthur Witt, Jr., article, The Progressive Fish-Culturist, vol. 23, no. 2, April 1961, pp. 94-96, illus., printed.

MISCELLANEOUS PUBLICATIONS

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

AIR TRANSPORTATION:

"L'Avion et de Transport de Denrees Perissables sous Regime de Froid" (Controlled Temperature Transport of Perishable Foodstuffs in Aircraft), by M. Maurer, article, Bulletin of the International Institute of Refrigeration, vol. 41, no. 1, 1961, pp. 301-323, illus., printed in French with English abstracts. Institut International du Froid, 177, Boulevard Malesherbes, Paris (17^e), France. The full text of a general study for which an abridged text was presented at the 10th International Congress of Refrigeration in August 1959. Contains sections on: "Conditions for Use of Aeroplanes for the Transport of Perishable Foodstuffs," "Cooling of Aircraft Holds at Ground," and "Equipment of Aircraft for the Transport of Perishable Foodstuffs under Controlled Temperature."

ALASKA:

Regulations of the Alaska Board of Fish and Game for Commercial Fishing in Alaska, 119 pp., printed. Alaska Department of Fish and Game, 229 Alaska Office Bldg., Juneau, Alaska, 1961.

ALGAE:

Actions and Interactions of Temperature, Light Intensity and Nutrient Concentration on the Growth of the Green Alga, CHLAMYDOMONAS REINHARDI Dan-gard, by Alen Milne McCombie, 24 pp., illus., printed. (Reprinted from Journal of the Fisheries Research Board of Canada, vol. 17, no. 6, 1960, pp. 871-894.) Queen's Printer and Controller of Stationery, Ottawa, Canada.

"Marine Red Algae of Pacific Mexico. Part 4--Gigartinales," by E. Yale Dawson; "Part 5--The Genus Polysiphonia," by G. J. Hollenberg and E. Yale Dawson, articles, Pacific Naturalist, vol. 2, no. 5-6, April 28, 1961, pp. 191-375, illus., printed. Beaudette Foundation for Biological Research, Box 482, R.F.D. 1, Solvang, Calif.

ALMANAC:

The Nautical Almanac for the Year 1962, Catalog No. D 213.11:962, 311 pp., printed, \$2. U. S. Naval Observatory, Washington, D. C., 1961. (Available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Provides in a convenient form the astronomical data required for marine navigation.

ANTIBIOTICS:

"Change in Freshness and CTC Residue of Chlortetracycline-Treated Trawler's Catches with Species,

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

Size and Method of Treatment," by Shigeyuki Sasa-yama and others, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 26, March 1960, pp. 361-369, printed in Japanese with English abstract. Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori, 6-chome, Tokyo, Japan.

"Effect of Aureomycin (Chlortetracycline) and Aureomycin in 5% Sodium Chloride Solution on the Keeping Quality of Fresh Water Fish Fillets," article, Journal of Scientific and Industrial Research, vol. 19 C, no. 9, September 1960, pp. 231-232, printed. Journal of Scientific and Industrial Research, Old Mill Rd., New Delhi, India.

"Role of Oxytetracycline and Chlortetracycline on Keeping the Quality of Fish with Special Reference to Increase of Resistant Bacterial Population," by Toshiharu Kawabata and others, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 26, March 1960, pp. 300-311, printed in Japanese with English abstract. Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori 6-chome, Tokyo, Japan.

ARGENTINA:

"La Industria Pesquera, Estado Actual y Perspectivas en Nuestro Pais" (The Fishery Industry. Present Status and Prospects in Argentina), by D. Chaplin, article, Villber, vol. 1, no. 2, July 1960, pp. 13-16, printed in Spanish. Villber, S. A. C. I., Rosario, Argentina.

BELGIUM:

Rapport Annuel sur l'Evolution de la Flotte de Peche en 1959 (Annual Report of the States of the Fishing Fleet in 1959), 43 pp., processed in French. Ministère des Communications, Administration de la Marine et de la Navigation Interieure, Brussels, Belgium.

BIBLIOGRAPHIES:

Bibliographie--L'Industrie des Peches (Bibliography of the Fishing Industry), 48 pp., processed. Laboratoire des Peches Coloniales, Museum National d'Histoire Naturelle, 57, rue Cuvier, Paris Ve, France, December 1955.

BIOCHEMISTRY:

"Biochemical Changes in Fish During Maturation," by H. L. A. Tarr, article, Marine Biology, April 1959, pp. 36-50, printed. Proceedings of the Twentieth Annual Biology Colloquium, Oregon State College, Corvallis, Oreg.

"Trimethylamine Oxide in Fish Muscle. III--The Origin of Trimethylamine Oxide in Marine Fish Muscle," by Tomotoshi Okaichi, Masaya Manabe, and Yoshiro Hashimoto, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 25, June 1959, pp. 136-140, printed in Japanese with English abstract. Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori, 6-chome, Tokyo, Japan.

BONITO:

"Change of Free Amino Acids During the Manufacturing Process of 'Katsuwobushi' (Dried Bonito)," by Shoji Konosu and Yoshio Hashimoto, article, Bulletin

of the Japanese Society of Scientific Fisheries, vol. 25, August 1959, pp. 307-311, printed in Japanese with English abstract. Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori, 6-chome, Tokyo, Japan.

BYPRODUCTS:

"Las Industrias Derivadas de la Pesca en Espana" (The Fishery Byproducts Industries in Spain), by San, article, Industria Conservera, vol. 27, no. 260, February 1961, pp. 43-44, printed in Spanish. Industria Conservera, Calle Marques de Valladares, 41, Vigo, Spain.

CALIFORNIA:

California Fish and Game, vol. 47, no. 2, April 1961, III pp., illus., printed. Department of Fish and Game, 987 Jedsmith Dr., Sacramento 19, Calif. Includes, among others, the following articles: "Results of the 1955 to 1959 Pismo Clam Censuses," by John L. Baxter; and "Descriptions of Postlarval and Juvenile Bonito from the Eastern Pacific Ocean," by Leo, Pinkas.

CANADA:

The Boat Building Industry, 1959, by Dominion Bureau of Statistics, April 1961, 10 pp., printed, 50 Canadian cents. The Queen's Printer and Controller of Stationery, Ottawa, Canada. Contains statistical tables presenting inventories during 1959; products of the boat-building industry, 1958-59; materials used in the industry; factory shipments of boats; employees and their earnings; capital and repair expenditures; and other similar data.

Fisheries Statistics of British Columbia, 1960 (Preliminary), 14 pp., printed. Department of Fisheries, Economics Branch, Pacific Area, Vancouver, B. C., Canada, April 1961. Discusses the total value of fish and fish products produced in 1960 with an analysis of the decline in total landings; landed and marketed value, production and utilization, and canned pack of salmon; herring landings; halibut landings; crab and shrimp catch; fishing vessels; gear and equipment; and number of licensed fishermen. Includes statistical tables on landings and value by species, and by years; utilization of the catch, by species; salmon pack, 1960; and other similar data.

Operations of Modern Fishing Craft, Atlantic Seaboard, 1959, by John Proskie, Primary Industry Studies No. 1, vol. 9, 112 pp., processed. Economics Service, Department of Fisheries, Ottawa, Canada, 1961. (Available from Queen's Printer and Controller of Stationery, Ottawa, Canada.) An annual progress report on a study of the economics of primary fishing enterprises in the Atlantic provinces. Presents in summary form the results of fishing activities and the financial outcome for 156 primary fishing enterprises. The data include modernization program, 1947-60; description of boats, capital cost, financing, ownership; fishing activities; landings and landed values; and prices, receipts, expenditures, net returns. Also includes data on fishing effort and returns; geographic operational areas; and seasonal fishing effort and landings.

"La Physionomie de la Peche Canadienne sur la Cote Atlantique a Profondement Change depuis la Guerre" (The Character of the Canadian Fishery on the

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

Atlantic Coast Has Changed Tremendously since the War), by T. H. Turner, article, *La Peche Maritime*, vol. 40, no. 997, April 1961, pp. 221-223, illus., printed in French. *La Peche Maritime*, 190, Boulevard Haussmann, Paris, France.

"Senate Committee on Land Use in Canada," article, *Trade News*, vol. 13, no. 9, March 1961, pp. 19-25, 27, processed. Information and Educational Service, Department of Fisheries, Ottawa, Canada. "In Canada, any industry which uses water in any way or affects the water supply will influence fish in one way or another," states the author. Reviews the effects of agriculture, forestry, and mining on the fisheries. Also covers the scope of secondary occupations engaged in by fishermen, particularly farming and forestry.

CASPIAN SEA:

Caspian Sea and Its Basin, by B. A. Apollov, TRANS-1, 121 pp., illus., processed. (Translated from Russian, *Akademiia Nauk CCCP*, 1956, pp. 1-121) U. S. Navy Hydrographic Office, Washington, D. C., 1960.

CONSUMPTION:

"Urban Family Expenditures for Fish, 1953, 1955 and 1957," by H. C. Frick, article, *Trade News*, vol. 13, no. 9, March 1961, pp. 5-18, illus., processed. Information and Educational Service, Department of Fisheries, Ottawa, Canada. Reports on three biennial family food expenditure surveys conducted in 1953, 1955, and 1957, by the Dominion Bureau of Statistics. The average weekly family expenditure for fisheries food products in five Canadian cities was 50 cents in 1957. This was above the 1955 figure of 43 cents, but below that for 1953, which was 54 cents. In each of the three years, fish and shellfish purchases represented only two percent of the average weekly family expenditures for all foods of about \$22. In the first two surveys, families recorded their fish purchases under three headings: (1) fresh fish, cured fish, and other seafood; (2) canned salmon; and (3) other canned fish and seafood. In 1957, a separate category was used for frozen fish, making four classifications in all. Statistical tables present the results of these surveys.

COSTA RICA:

La Realidad de la Pesca en Costa Rica (The Present Condition of the Costa Rican Fisheries), by Raul H. Canessa Murillo, 23 pp., processed in Spanish. Camara Puntarenense Pescadores, Apartado 245, Puntarenas, Costa Rica.

CRABS:

Some Growth Changes in the Stone Crab MENIPPE MERCENARIA (Say), by Raymond B. Manning, Contribution No. 294, 5 pp., illus., printed. (Reprinted from *Quarterly Journal of the Florida Academy of Sciences*, vol. 23, no. 4, 1960, pp. 273-277.) The Marine Laboratory, University of Miami, #1 Rickenbacker Causeway, Miami 49, Fla., 1961.

CRAWFISH:

"Mudbug Farming," by Percy Viosca, Jr., article, *Louisiana Conservationist*, vol. 13, no. 3, March 1961, pp. 5-7, 19, illus., printed. Louisiana Conservationist, Wild Life and Fisheries Bldg., 400 Royal St., New Orleans 16, La. Discusses the

recent introduction of crawfish farming in Louisiana. Frequently, a crop of crawfish in winter is rotated with a crop of rice in summer, enhancing the value of both products. The author, finding many crawfish farmers operating on a trial and error basis, offers suggestions on kinds of crawfish to rear, soil condition, water supply, fertilizer, vegetation, broodstock, and harvesting.

CRUSTACEANS:

"Crevettes, Langoustines, Langoustes: dans le Golfe de Cadix" (Shrimp, Spiny Lobsters, and Lobsters in the Gulf of Cadiz), by Jules Molard, article, *France Peche*, vol. 6, no. 48, February 1961, pp. 13-14, printed in French. *France Peche*, Tour Sud-Est, Rue de Guemene, Lorient, France.

Lobster and Crab Fishing, by W. S. Forsyth, 103 pp., illus., printed, 7s. 6d. (about US\$1.05). The Macmillan Co., 60 5th Ave., New York 11, N. Y., 1960.

Shore Fishing for Lobsters, Crabs, and Prawns, by B. R. Faunthorpe, 157 pp., illus., printed, 15s. (about US\$2.10). Seeley Service and Co., Ltd., 196 Shaftesbury Ave., London WC2, England, 1952.

CUTTLE-FISH:

"Studies on the Utilization of Cuttle-Fish, *Ommastrephes sloani pacificus*. III--The Seasonal Variations in the Gravimetric Constitution and Chemical Composition of the Various Parts of the Body," by Takashi Takahashi, article, *Bulletin of the Japanese Society of Scientific Fisheries*, vol. 26, February 1960, p. 95, printed in Japanese with English abstract. Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori, 6-chome, Tokyo, Japan.

DENMARK:

"Order No. 258 Promulgating the Act on the Establishment of a Credit Institute for the Fisheries Industry," *Food and Agricultural Legislation*, vol. IX, no. 2, December 1, 1960, Denmark, XVIII.3/59.1, 7 pp., printed, \$1. Columbia University Press, International Documents Service, 2960 Broadway, New York 27, N. Y. Covers the provisions of Denmark Order No. 258, July 30, 1959 (Lovtidende A., No. XX, August 18, 1959, p. 945). The order states that "An Institute shall be established bearing the title of the Fisheries Bank of the Kingdom of Denmark, the purpose of which shall be to support Danish fisheries and the manufacture and marketing of fish and fisheries products by the grant of loans. . . . The State Exchequer shall make available to the Bank the sum of 10 million Danish crowns as a basic fund for financing the Bank's operations."

DEVELOPMENT BANK:

Inter-American Development Bank, First Annual Report, 1960, 49 pp., illus., printed. Office of Information, Inter-American Development Bank, Washington 25, D. C., 1961. Describes the Bank's organization and policies and contains financial statements on ordinary capital resources and the fund for special operations. Also discusses economic and social problems of Latin America today, including population growth, raw-materials prices, and balance of payments. By September 30, 1960, according to the report, member countries had paid in 99.6 percent of first installments due. This amounted to the

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

equivalent of \$75,769,000 in ordinary capital resources and \$72,882,500 in resources of the fund for special operations. By the end of 1960, the Bank had received 194 applications for loans and 174 inquiries. At this time, the Bank had 91 applications on an active status, involving \$200 million in loan requests.

EELS AND LAMPREYS:

"Lampreys and Eels," by Frank J. Schwartz, article, Maryland Conservationist, vol. 38, no. 2, March-April 1961, pp. 18-27, illus., printed. Maryland Conservationist, State Office Bldg., Box 231, Annapolis, Md. Presents an explanation of the differences between eels and lampreys and describes in detail the sea lamprey, Petromyzon marinus; least brook lamprey, Lampetra aepyptera; American brook lamprey, Lampetra lamottei; American eel, Anguilla rostrata; and the conger eel, Conger oceanicus.

FATTY ACID:

"Biogenesis of Polyunsaturated Acid in Fish," by James F. Mead, Mitsu Kayama, and Raymond Reiser, article, Journal of the American Oil Chemists' Society, vol. 37, September 1960, pp. 438-440, printed. The American Oil Chemists' Society, 35 E. Wacker Dr., Chicago 1, Ill.

FEEDSTUFFS:

"Fishy Eggs," by H. Gasperdone and others, article, Feedstuffs, vol. 32, October 1, 1960, pp. 34-36, printed. Feedstuffs, Miller Publishing Co., 118 S. 6th St., Minneapolis 2, Minn.

FISH FLOUR:

"Dry Protein From Low-Grade Small Fish," by A. I. Yuditakaya, article, Rybnoe Khoziaistvo, no. 9, 1954, pp. 56-59, printed in Russian. Rybnoe Khoziaistvo, VNIRO Glavniproekta, pri Gosplanie SSSR, Moscow, U.S.S.R.

FISH MEAL:

Contribuicao para o Estudo de Kjeldahlizacao Rapida em Farinhas de Peixe (Contribution in the Study of the Kjeldahl Rapid Method of Manufacturing Fish Meal), by Rui Monteiro, Notas Mimeografadas do Centro de Biologia Piscatoria No. 13, 9 pp., processed in Portuguese. Ministerio do Ultramar, Junta de Investigacoes do Ultramar, Lisbon, Portugal, 1960.

"La Situation de l'Industrie de la Farine de Poisson dans le Monde" (The World-wide Situation of the Fish Meal Industry), article, La Peche Maritime, vol. 40, no. 997, April 1961, pp. 213-214, illus., printed in French. La Peche Maritime, 190, Boulevard Haussmann, Paris, France

FLORIDA:

Ichthyological Surveys of the Lower St. Lucie and Indian Rivers, Florida East Coast, by Victor G. Springer, FSBCML No. 60-19, 19 pp., illus., processed. Florida State Board of Conservation Marine Laboratory, Maritime Base, Bayboro Harbor, St. Petersburg, Fla., June 23, 1960.

FOOD AND AGRICULTURE ORGANIZATION:

"The Conservation of Fish Stocks," by J. A. Gulland, article, Current Affairs Bulletin, no. 29, December

1960, pp. 1-5, printed. Indo-Pacific Fisheries Council, Food and Agriculture Organization of the United Nations, Bangkok, Thailand. Conservation of fish stocks is concerned with suitable regulation of fishing, and the main problems are first, establishing the facts as to how fishing controls the level of the stocks and hence future catches, and second, deciding in the light of these facts how the fishery should be regulated to the best interests of both producer and consumer, present and future. Of the factors which influence the yield two are directly under human control: the fishing mortality, which is directly proportional to fishing effort; and the age or size at which the fish are first liable to capture. Control of the catch can be effected by regulation of mesh size, closing of certain areas, establishment of minimum size for landing, use of catch quotas, enforcement of closed seasons, and limitation of the size or type of vessel or the number of vessels employed.

English Translation of Agreement between the Governments of The Union of Soviet Socialist Republics, The People's Republic of Bulgaria, and The Rumanian People's Republic, Concerning the Fisheries of the Black Sea, FAO Fisheries Biology Technical Paper No. 6, 8 pp., processed, limited distribution. Fisheries Division, Biology Branch, Food and Agriculture Organization of the United Nations, Rome, Italy, February 1961.

Fish--The Great Potential Food Supply, by D. B. Finn, World Food Problems No. 3, 50 pp., illus., printed, 50 cents. 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.) A survey of the world's food fish supply and its utilization. Contains sections covering the increasing world catch of fish; problems which hinder and hamper fish production; some examples of work and progress in fisheries; and increasing the supply of fish. The world catch of fish is now about 34 million metric tons a year. It is probable that the existing known stocks are sufficient for a catch of 50 to 60 million tons annually without considering the possible discovery of new fisheries. Progress toward this total will be made through mechanization of fishing vessels, gear, and equipment; training of fishermen; development of fish processing and preservation; and organization of transport, distribution, and marketing in the underdeveloped areas of the world.

General Fisheries Council for the Mediterranean, Agreement and Rules of Procedure 33 pp., printed in French and English. General Fisheries Council for the Mediterranean, Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, 1960.

List of Participants and Summary Record of the Plenary Sessions (General Fisheries Council for the Mediterranean, FAO, VI Session, 22-28 September 1960, Rome), 15 pp., processed in English and French. General Fisheries Council for the Mediterranean, Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, 1960.

Multilingual Vocabulary and Notation for Fishery Dynamics, compiled by S. J. Holt, 42 pp., printed

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

in English, French, and Spanish. Food and Agriculture Organization of the United Nations, Rome, Italy, 1960. (For sale by the Columbia University Press, International Documents Service, 2960 Broadway, New York 27, N. Y.) This vocabulary is an extension of the standard terminology and notation published in 1959. It is not intended to be comprehensive but lists terms, used by fishery biologists, in various languages only for the quantities to which a standard symbol was recommended in that paper. About 28 terms are defined in each of 20 languages.

Report (General Fisheries Council for the Mediterranean, FAO, VI Session, 22-28 September 1960), 18 pp., processed in English and French. General Fisheries Council for the Mediterranean, Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, 1960.

Some Aspects of the Marketing of Dried Fish in Central and West Africa, by George R. Allen and Jacques Chaux, 66 pp., processed. Food and Agriculture Organization of the United Nations, Rome, Italy, 1961. A report based on a study tour in Central and West Africa made in August and September 1959. The study was organized to satisfy the need for information on the trade in a commodity which is of great actual, and even greater potential, importance in meeting protein requirements in human diets and, at the same time, is a significant source of income for those employed in the fishery industries in the area. Topics covered include the demand for dried fish, the economic approach to production and marketing problems, cooperation between African countries, and intermediary marketing functions. Also discussed are the retailing of dried fish in Central and West Africa, the fishery industries of Angola, the stockfish trade in Nigeria, and observations on the dried fish trade on a country-by-country basis.

FOREIGN TRADE:

Licensing and Exchange Controls--the Philippines, WTIS Part 2, Operations Report No. 61-9, 10 pp., printed, 10 cents. Bureau of Foreign Commerce, U. S. Department of Commerce, Washington, D. C., February 1961. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Discusses Philippine import and export controls, the decontrol program, import licensing, exchange controls on imports, allocation of regular exchange quotas, regulations on free market imports, special import regulations, and United States controls on exports and imports.

Licensing and Exchange Controls--United Kingdom, WTIS Part 2, Operations Report No. 61-4, 4 pp., printed, 10 cents. Bureau of Foreign Commerce, U. S. Department of Commerce, Washington, D. C., January 1961. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Discusses the United Kingdom's import and export licensing policy, import and export licensing and exchange controls, and United States controls on exports and imports.

FRANCE:

"Le Monde de la Peche a Pris Conscience de Ses Problemes et Marque sa Volonte de les Resoudre"

(The Fishery Industry Has Assessed Its Problems and Expresses a Willingness to Solve Them), article, La Peche Maritime, vol. 40, no. 997, April 1961, pp. 205-212, illus., printed in French. La Peche Maritime, 190, Boulevard Haussmann, Paris, France.

"La Production Francaise en Produits de la Mer Surgelés Face au Marche National" (The French Production of Processed Frozen Fishery Products Competes on the National Market), by A. Bachmann, article, France Peche, vol. 6, no. 48, February 1961, pp. 43-44, illus., printed in French. France Peche, Tour Sud-Est, Rue de Guemene, Lorient, France.

FRESH FISH HANDLING:

Chilling of Fish, 276 pp., illus., printed. Food and Agriculture Organization of the United Nations, Rome, Italy, 1961. Contains papers submitted at a conference sponsored by FAO's Interim Committee on Fish Handling and Processing, held in Rotterdam, June 1956. The volume is divided into three parts: (1) the Use of Antibiotics, Bacteriostatic Ices, and Dips; (2) Brine Cooling, Sea-Water Ice, Scale Ice; and (3) Fresh Fish Quality Assessment--Objective and Subjective Methods. During discussions, it was stressed that the methods used by the fishing industry are often such that a great improvement in the keeping quality of fish can be attained by better handling, icing, and hygiene, without the use of preservatives. It was also suggested that a fair distribution of antibiotics in ice during its manufacture is possible, particularly with small ice. Discussions on brine cooling included the use of tanks with chilled sea water on fishing vessels; and it was decided that the question of the stability of boats needed further examination. The opinion was expressed that this method did not adapt itself to distant-water trawlers because of the extra space needed. There was also a discussion on fish odors. One man stated that it is difficult, even for expert graders, to spot by visual examination the "stinkers." It is only when the fillet is cut that one can tell, by the odor, that a fish is a stinker. In assessing quality of fresh fish, the newer tests and improvements in existing tests are being developed and explored, the most recent covering studies of chemical changes taking place in spoiling. Details are given of a method being developed in Germany on the use of electricity in testing the quality of fresh fish. In Great Britain, work is being done on the changes in the opacity of fish eye lenses during storage of the fish in ice and on the development of a special apparatus for estimating opacity.

FROZEN FISH:

Commercialisation et Consommation du Poisson Surgelé (Marketing and Consumption of Frozen Fish), Draft No. 5/18, 136 pp., printed in French, \$1.25. European Agency of Productivity, European Organisation for Economic Cooperation, 2, rue Andre-Pascal, Paris (16^e), France.

"Le Poisson Congele au Danemark" (Frozen Fish in Denmark), by F. Bramsnaes, article, France Peche, vol. 6, no. 48, February 1961, pp. 21-23, 25-28, illus., printed in French. France Peche, Tour Sud-Est, Rue de Guemene, Lorient, France.

FUR SEALS:

"North Pacific Fur Seals," article, Trade News, vol. 13, no. 9, March 1961, pp. 3-4, illus., processed. In-

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

formation and Educational Service, Department of Fisheries, Ottawa, Canada.

GENERAL:

The UNESCO Courier, vol. 13, no. 7-8, July-August 1960, printed. United Nations Educational, Scientific, and Cultural Organization, 801 3rd Ave., New York 22, N. Y. Contains a series of 16 articles on the ocean's secrets--devoted to oceanography and marine life.

HALIBUT:

Memorandum on 1961 Pacific Halibut Fishery Regulations, 7 pp., processed. International Pacific Halibut Commission, Fisheries Hall No. 2, University of Washington, Seattle 5, Wash. Lists the regulatory areas and length of the halibut fishing seasons, and discusses closed seasons, catch limits, minimum size limit, and nets and dory gear prohibited. Also covers the retention of tagged halibut, licensing of vessels, conditions limiting validity of licenses, earliest dates for validation of licenses, permits to retain incidentally caught halibut, statistical returns by vessels, and dealers' records.

Pacific Halibut Fishery Regulations (Effective March 30, 1961), 11 pp., printed. International Pacific Halibut Commission, Fisheries Hall No. 2, University of Washington, Seattle 5, Wash., March 1961. These regulations were published in conformity with the Pacific Halibut Fishery Convention between the United States and Canada, signed March 2, 1953. They are based on biological and statistical investigations, designed to show what catch can be taken from the stocks each year. The 1961 regulations differ from those of 1960 in the following respects: (1) Area 3B is divided into two parts, Area 3B North and Area 3B South, with differential opening dates of April 10 and April 25 respectively; (2) The second season in Areas 1B and 2 is eliminated; (3) the catch limit in Area 2 has been increased from 26.5 million pounds to 28 million pounds, and in Area 3A from 30 million pounds to 33 million pounds; (4) the descriptions of the Timbered Islet and Maset grounds in Area 2, which no longer qualify as nursery grounds, are removed from the regulations.

Utilization of Pacific Halibut Stocks: Yield per Recruitment, Report No. 28, 51 pp., illus., printed. International Pacific Halibut Commission, Fisheries Hall No. 2, University of Washington, Seattle 5, Wash., 1960.

HERRING:

"Explorations for Herring in the Bay of Fundy and Gulf of Maine," by S. N. Tibbo and V. M. Brawn, article, Journal of the Fisheries Research Board of Canada, vol. 17, September 1960, pp. 735-737, printed. Journal of the Fisheries Research Board of Canada, Queen's Printer & Controller of Stationery, Ottawa, Canada.

"Rapport over Smasildundersøkelser i Nord-Norge med F/F Asterias høsten 1960" (Report on Small Herring Investigations in Northern Norway on Board the Asterias during 1960), by Per Hognestad, article, Fiskets Gang, vol. 47, no. 16, April 20, 1961, pp. 329-333, illus., printed in Norwegian. Fiskets Gang, Fiskeridirektoratet, Radstuplass 10, Bergen, Norway.

"Seasonal and Diurnal Vertical Distribution of Herring (*CLUPEA HARENGUS L.*) in Passamaquoddy Bay, N. B." by Vivien M. Brawn, article, Journal of the Fisheries Research Board of Canada, vol. 17, September 1960, pp. 699-711, printed. Journal of the Fisheries Research Board of Canada, Queen's Printer & Controller of Stationery, Ottawa, Canada.

IDAHO:

Experimental Rough Fish Control; Annual Progress Report, by Charles R. Fill and James F. Keating, Jr., 49 pp., illus., printed. Fisheries Division, Boise, Idaho, 1960.

; Completion Report, 1955-1960, by James F. Keating, 71 pp., printed.

INTERNATIONAL COMMISSIONS:

International North Pacific Fisheries Commission, Bulletin No. 3, January 1961, 27 pp., illus., printed. International North Pacific Fisheries Commission, 6640 NW Marine Dr., Vancouver 8, B. C., Canada. Contains articles on: "Rapid Counting of Nematoda in Salmon by Peptic Digestion," by Joseph A. Stern and others; "Serological Differentiation of Populations of Sockeye Salmon," by G. J. Ridgway, J. E. Cushing, and G. L. Durall; and "Some Features of the Upper Zone of the Sub-Arctic Pacific Ocean," by A. J. Dodimead.

Report by the President on the Eighth Meeting of the Permanent Commission Held in London, May 1960, 37 pp., processed in English and portions in French. Office of the Commission, International Fisheries Convention of 1946, Board of Trade Bldgs., Whitehall Gardens, London SW1, England, 1961. A report on the eighth meeting of the Permanent Commission, International Fisheries Convention of 1946. Includes, among other items, the report of the Committee on Mesh Difficulties, a proposal to increase the mesh size in trawl nets in the northeast part of the Convention area, and a discussion of the state of the herring industry. Also includes the agenda of the eighth meeting, a list of the observers and delegates, and financial reports.

ISRAEL:

Bamidgheh, vol. 12, no. 4, December 1960, 48 pp., illus., printed in Hebrew and English. Bamidgheh, Joint Agricultural Extension Center, Division of Fisheries, Ministry of Agriculture, Tel Aviv, Israel. Contains the following articles: "Suggestions for the Improvement of Fish Breeding," by S. Tal; "An Electric Instrument for Brandmarking Fish," by Rom Moav, G. Wohlfarth, and M. Lahman; "Adaptability of Tilapia nilotica to Various Saline Conditions," by Ruth Lotan; "The Elimination of Uncontrolled Spawns in Carp Fattening Ponds," by J. Pruginin and J. Shechter; and "A Mobile Belt for Hauling and Sorting Fish," by Z. Shatz.

ITALY:

Bollettino di Pesca, Piscicoltura e Idrobiologia (Bulletin of Fishery, Fish Culture, and Hydrobiology), vol. 14, no. 2, July-December 1959, 116 pp., illus., printed in Italian. Laboratorio Centrale di Idrobiologia, Piazza Borghese, 91, Rome, Italy. Includes, among others, these articles: "Lo Scampo del Mare Tirreno (Nato I)" (The lobster, *Nephrops norvegicus*, of the Tyrrhenian Sea), by Francesco Matta; "Osservazioni Compiute nelle Tonnara del Tono"

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

di Milazzo durante le Stagione di Pesca 1958" (Observations Made of Tuna Pound Nets of Milazzo, Sicily, during the Summer Fishery of 1958), by Francesco Li Greci; "La Pesca nell'Isola d'Elba" (The Fisheries of the Island of Elba), by Maria Giovanna Pedrotti; and "Osservazioni Eseguite in Alcune Tonnare del Basso Tirreno durante la Campagna di Pesca 1959" (Observations Made of Some Tuna Pound Nets in the Lower Tyrrhenian Sea during the 1959 Fishing Season), by Sebastiano Genovese.

LAW OF THE SEA:

"Landhelgismalid, Lausn a Deilunni vith Breth--Aukning Fiskeithilogsogunnar" (Dispute on Fishing Limits, Dispute with the British--Extension of Fishing Zone), article, Aegir, vol. 54, no. 4, March 1961, pp. 70-79, illus., printed in Icelandic. Aegir, Posth. 20, Reykjavik, Iceland.

"Sedentary Fisheries and the Convention on the Continental Shelf," by Richard Young, article, American Journal of International Law, vol. 55, no. 2, April 1961, pp. 359-373, printed. American Society of International Law, Prince and Lemon Sts., Lancaster, Pa. The Convention on the Continental Shelf of April 29, 1958 declares that the "coastal State exercises over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources." It later defines these resources as "the mineral and other non-living resources of the seabed and subsoil together with living organisms belonging to sedentary species, that is to say, organisms which, at the harvestable stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil." This article discusses the history of the legal aspects of the continental shelf resources and the work of the International Law Commission on this subject as part of its study of the law of the sea. The proceedings of the Fourth Committee (Continental Shelf) of the Geneva Conference are also discussed, as well as the status provided by the Convention, its scope, and problems which might arise from it.

LOBSTERS:

Pesca Exploratoria de la Langosta con Nasas, al Sur de Camaguey, Cuba (Exploratory Spiny Lobster Fishing with Traps, South of Camaguey, Cuba), by Rene J. Buesa Mas, Contribution No. 11, 28 pp., illus., printed in Spanish. Centro de Investigaciones Pesqueras, Seccion de Pesca, Instituto Nacional de la Reforma Agraria, Playa Habana, Bauta, Cuba.

LONG-LINER:

"Le Daguite Premier Thonier Construit en Europe pour la Peche a la Ligne Longue" (The Daguite, First Tuna Vessel Constructed in Europe for the Long-Line Fishery), article, La Peche Maritime, vol. 40, no. 996, March 1961, pp. 167-171, 173, illus., printed in French. La Peche Maritime, 190, Boulevard Haussmann, Paris, France.

MACKEREL:

"Studies on the Method for Testing the Spoilage of Food. XI - Determination of Volatile Reducing Substances of Mackerel Flesh by Steam Distillation," by Tetsuo Tomiyama and others, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 26, January 1960, pp. 33-38, printed in

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

MARINE AIDS:

List of Lights and Other Marine Aids, Vol. IV, Great Lakes, United States and Canada, Catalog No. T 47.52:v.4/961, 240 pp., illus., printed, \$1.75. U. S. Coast Guard, Washington 25, D. C., 1961. (Available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Lists the lights and other marine aids to navigation maintained or under authority of the U. S. Coast Guard and the Dominion of Canada on the Great Lakes and the St. Lawrence River above Regis River.

MARINE BIOLOGY:

The Biological Bulletin, vol. 120, no. 2, April 1961, 155 pp., illus., printed. Marine Biological Laboratory, Woods Hole, Mass. Includes, among others, these articles: "An Experimental Demonstration of Echo-Location Behavior in the Porpoise, Tursiops truncatus (Montagu)," by Kenneth S. Norris and others; "Skeleton Formation of Sea Urchin Larvae. III--Similarity of Effect of Low Calcium and High Magnesium on Spicule Formation," by Kayo Okazaki; and "The Effect of Temperature on the Growth and Survival of Several Marine Algal Species," by Ravenna Ukeles.

Journal of the Marine Biological Association of the United Kingdom, vol. 41, no. 1, February 1961, 227 pp., illus., printed, 50s. (US\$8.50). Cambridge University Press, 32 E. 57th St., New York 22, N. Y. Includes, among others, these articles: "The Long Rough Dabs of the Clyde Sea Area," by T. B. Bagenal; "Vitamin B₁₂ and Marine Ecology: the Response of Monochrysis lutheri," by M. R. Droop; "A Pressurizing Device for a Camera Case Designed for Use in Shallow Water," by D. J. Scarratt; and "Observations on the Mortality of Ostrea edulis," by P. R. Walne.

MARINE MAMMALS:

Results of the Puritan-American Museum of Natural History Expedition to Western Mexico. 10--Marine Mammals from the Coasts of Baja California and the Tres Marias Islands, Mexico, by Richard G. Van Gelder, American Museum Novitates, no. 1992, March 8, 1960, 27 pp., illus., printed. The American Museum of Natural History, Central Park W. at 79th St., New York 24, N. Y.

MUSSELS:

"Seasonal Variations in the Chemical Composition of Mussel (MYTILUS EDULIS). PART 2 - Carbohydrates," by F. Fraga, article, Investigacion Pesquera, vol. 11, January 1958, p. 33, printed in Spanish. Investigacion Pesquera, Instituto de Investigaciones Pesqueras, Universidad de Barcelona, Barcelona, Spain.

NAVIGATION:

United States Coast Pilot I--Atlantic Coast, Eastport to Cape Cod, Sixth Edition, 243 pp., illus., printed, \$2.50. Coast and Geodetic Survey, U. S. Department of Commerce, 1960.

NORWAY:

"Loddeundersokelser med F/F Johan Hjort, 22 February-18 Mars 1961" (Capelin Survey by F/F Johan

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

Hjort February 22-March 18, 1961), by D. Moller and others, article, Fiskets Gang, vol. 47, no. 17, April 27, 1961, pp. 347-350, illus., printed in Norwegian. Fiskets Gang, Fiskeridirektoratet, Radstuplass 10, Bergen, Norway

OCEANOGRAPHY:

Oceanographic Data from ATLANTIS Cruise 247, January-June 1959 for the International Geophysical Year of 1957-58, Reference No. 60-40, 151 pp., illus., processed. Woods Hole Oceanographic Institution, Woods Hole, Mass., March 1960.

Studies of Physical, Chemical, and Biological Oceanography in the Vicinity of the Revilla Gigedo Islands during the "Island Current Survey" of 1957, by Edward B. Bennett and Milner B. Schaefer, Inter-American Tropical Tuna Commission Bulletin, vol. 4, no. 5, 1960, 101 pp., illus., printed. Inter-American Tropical Tuna Commission, La Jolla, Calif.

O.E.C.D.:

Organization for Economic Cooperation and Development, Department of State Publication 7161, 24 pp., printed, 15 cents. Office of Public Services, Bureau of Public Affairs, U. S. Department of State, Washington, D. C., April 1961. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.)

OTOLITHS:

"The Growth of the Fish Otolith," by Takaaki Irie, article, Journal of the Faculty of Fisheries and Animal Husbandry, Hiroshima University, vol. 3, no. 1, December 1960, pp. 203-221, illus., printed. The Faculty of Fisheries and Animal Husbandry, Hiroshima University, Fukuyama, Japan.

PERU:

"Las Conservas Peruanas" (Peruvian Canned Products), article, Pesca, vol. 11, no. 3, March 1961, pp. 11-17, illus., printed in Spanish. Pesca, Av. Wilson 911, Oficina 602, Lima, Peru.

PLANKTON:

Phytoplankton in the Black Sea and Its Quantitative Growth, by N. V. Morozova-Vodianitskaia, TRANS-80, 28 pp., processed. (Translated from Russian, Trudy Sevastopol'skoi Biologicheskoi Stantsii, vol. 9, 1957, pp. 3-13.) Technical Services Branch, Division of Oceanography, U. S. Navy Hydrographic Office, Washington, D. C., 1960.

POISONOUS FISH:

Peces Peligrosos en los Rios y Lagos de la Amazonia Peruana (Dangerous Fishes in the Rivers and Lakes of the Peruvian Amazon), by Jorge E. Sanchez R., Serie de Divulgacion Cientifica No. 2, 15 pp., illus., printed in Spanish. Ministerio de Agricultura, Direccion de Pesqueria y Caza, Lima, Peru, 1951.

RADIATION PROCESSING:

"Current Aspects of the Wholesomeness of Irradiated Food," by Merrill Stafford Read, article, Journal of Agricultural and Food Chemistry, vol. 8, September-October 1960, pp. 342-349, printed. Journal of Agricultural and Food Chemistry, American Chemical Society, 1801 K Street NW, Washington 6, D. C.

RANCIDITY:

"A Simple Method for Judging the Rancidity of Oily Fish," by Shigeshi Masuda, article, Bulletin of the Seikai Regional Fisheries Research Laboratory, no. 12, 1957, pp. 43-59, printed in Japanese. Suisancho Seikai-ku Suisan Kenkyusho, Maruo-machi Nagasaki-shi, Japan.

REFRIGERATED VESSELS:

"U.S.S.R.'s Refrigerated Fishing Vessels," by A. Kan and E. Pavlov, article, Quick Frozen Foods, vol. 23, September 1960, pp. 40-41, 94-96, printed. Quick Frozen Foods, E. W. Williams Publications, Inc., 82 Wall St., New York 5, N. Y.

SALMON:

"Inosine in the Muscle of Pacific Salmon Stored in Ice," by Vera M. Creelman and Neil Tomlison, article, Journal of the Fisheries Research Board of Canada, vol. 17, May 1960, pp. 449-451, printed. Journal of the Fisheries Research Board of Canada, Queen's Printer & Controller of Stationery, Ottawa, Canada.

A Pacific Salmon (ONCORHYNCHUS GORBUSCHA) in Scottish Waters, by W. M. Shearer and E. Trewwas, printed. (Reprinted from Nature, vol. 188, no. 4753, December 3, 1960.) St. Martin's Press, Inc., 175 Fifth Ave., New York 10, N. Y.

Salmon Spawning Report--British Columbia, 1960, 16 pp., processed. Department of Fisheries, Pacific Area, 1110 Georgia St. W., Vancouver 5, B. C., Canada, May 9, 1961. A report covering the seeding of the salmon spawning areas of British Columbia for 1960. Developments or trends of the 1960 migration and spawning escapement of salmon, by species and areas, are discussed.

Statistics on Salmon Sport Fishing in the Tidal Waters of British Columbia, 1960, 29 pp., illus., processed. Department of Fisheries of Canada, 1110 W. Georgia St., Vancouver 5, B. C., Canada, March 31, 1961. For the second successive year, the salmon sport catch in British Columbia showed a drop, with 331,425 salmon and grilse taken in 1960, down by 64,950 from 1959. The sports catch of all species, except coho, was down from 1959. Both sport and commercial fishermen experienced a sharp decline in salmon landings in 1960. However, the drop was proportionately more pronounced in commercial landings, with the over-all catch the lowest since records were first kept in 1910.

"Stillehavslaks pa Norskekysten" (Pacific Pink Salmon off the Coast of Norway), by Birger Rasmussen, article, Fiskets Gang, vol. 47, no. 17, April 27, 1961, pp. 351-354, illus., printed in Norwegian. Fiskets Gang, Fiskeridirektoratet, Radstuplass 10, Bergen, Norway.

Toxic Effects of Organic and Inorganic Pollutants on Young Salmon and Trout, Research Bulletin No. 5, 274 pp., processed. Washington State Department of Fisheries, 4015 20th Ave., W., Seattle 99, Wash., September 1960.

"Tryptic Enzymes of Chinook Salmon," by C. Bradford Croston, article, Archives of Biochemistry and Biophysics, vol. 89, August 1960, pp. 202-206,

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

printed. Archives of Biochemistry and Biophysics, c/o Academic Press Inc., 111 Fifth Ave., New York 3, N. Y.

SALT FISH:

"Preparacao e Secagem de Peixes Salgados nas Regioes Tropicais--Experimentacao com algumas Especies da Amazonia" (Preparation and Drying of Salt Fish in Tropical Regions--Experiments with Some Species from the Amazon), by Antonio Torres Botelho, article, Boletim de Pesca, vol. 13, no. 70, March 1961, pp. 39-59, illus., printed in Portuguese. Boletim de Pesca, R. S. Bento, 644, 4.º Esq., Lisbon, Portugal.

"Prevention of Red Discoloration in Salt Fish," by A. Torres Botelho, article, Boletim da Pesca, vol. 11, March 1958, pp. 11, printed in Portuguese. Boletim da Pesca, Avenida da Liberdade, 211-4, Lisbon, Portugal.

SARDINES:

The Pilchard of South West Africa (SARDINOPS OCELLATA), Size Composition of the Commercial Catches in South West Africa, 1952-1957, by J. P. Matthews, Investigational Report No. 1, 45 pp., illus., printed. Administration of South West Africa, Marine Research Laboratory, Windhoek, South West Africa. Deals with the size composition of the commercial catches of the South-West African pilchard, Sardinops ocellata (Pappe), which were made in the vicinity of Walvis Bay along the South-West African coast during the period October 1952 to December 1957. A description of the method of sampling and of the treatment of the samples is given. Then follows a description of the size composition of the catches, by months and by years, and a comparison with the fish which occurred in the catches of the Union of South Africa. Includes statistical tables showing length frequencies of commercial pilchard catches, 1952-1957, by months and by years, and graphs showing length frequencies during these years.

SEAWEED:

Annual Report for 1960, 19 pp., printed. Institute of Seaweed Research, Inveresk, Midlothian, Scotland. Discusses developments in the Scottish and foreign seaweed byproducts industry during 1960, and the Institute's information and technical assistance services. Also discusses production of alginates from seaweed, use of seaweed meal in animal feed-stuffs, development of fertilizers from seaweed, sponsorship of seaweed research by other organizations, and a list of publications on seaweed published during 1960.

SHIPWORMS:

A Method of Exterminating Shipworms of the Family Tereidinidae by Electric Current, by N. V. Verzhinskii, TRANS-79, 8 pp., illus., processed. (Translated from Russian, Biulleten' Okeanograficheskoi Komissii, no. 1, 1958, pp. 60-63.) U. S. Navy Hydrographic Office, Washington, D. C., 1960.

SHRIMP:

"Assessment of the Progressive Spoilage of Ice-Stored Shrimp," by J. R. Iyengar and others, article, Journal of the Fisheries Research Board of Canada, vol. 17, July 1960, pp. 475-485, printed.

Journal of the Fisheries Research Board of Canada, Queen's Printer & Controller of Stationery, Ottawa, Canada.

"Directory of Mexican Shrimp Producing Firms," article, Seafood Merchandising, vol. 20, June 1960, pp. 33-35, printed. Seafood Merchandising, H. L. Peace Publications, 624 Gravier Street, New Orleans 9, La.

The Fairy Shrimp BRANCHINECTA CAMPESTRIS from Northwestern United States (Crustacea: Phyllopoda), by James E. Lynch, Proceedings of the United States National Museum, vol. 112, no. 3447, 1960, 13 pp., illus., printed. United States National Museum, Smithsonian Institution, Washington, D. C.

The Feeding Mechanism of Some Atyid Prawns of the Genus CARIDINA, by Geoffrey Fryer, Transactions of the Royal Society of Edinburgh, vol. 60, no. 10, 1959-60, 28 pp., illus., printed, 10s. 6d. (about US\$1.50). Royal Society of Edinburgh, 22 George St., Edinburgh 2, Scotland, 1960.

The Texas Shrimp Fishery, by William C. Guest, Bulletin No. 36, 22 pp., illus., printed. Texas Game and Fish Commission, Walton State Bldg., Austin 14, Tex., 1958. Presents details of the Texas shrimp industry, by far the most important commercial fishery in the State. The quantity of shrimp landed increased from 18 million pounds in the fiscal year 1947/48 to over 79 million pounds in 1954/55. This pamphlet discusses the species of shrimp landed in Texas, life histories of commercial shrimp, the commercial shrimp fishery, and the bait shrimp fishery.

SMALL BUSINESS MANAGEMENT:

Improved Accounting Methods for Wholesale Food Distributors, Marketing Research Report No. 454, 146 pp., illus., processed. Transportation and Facilities Research Division, Agricultural Marketing Service, U. S. Department of Agriculture, Washington, D. C. (Available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) This report is based on detailed studies in the accounting departments of 7 wholesale food distributors and on observations made in numerous wholesale food distribution businesses in the United States and Canada. Its primary objectives were: (1) to apply the principles of work simplification to assembling, posting, totaling, and balancing the thousands of daily transactions for accumulating and summarizing into the records of account; (2) to develop improved methods of financial reporting to management and a standard simplified procedure for maintaining the general ledger with manual methods, automatic tabulating machine methods, and electronic computers having memory units; (3) to develop a method of providing reports, as byproducts of the accounting system, on productivity in warehousing, selling, and delivery; and (4) to develop a method of accounting and account classification that can be used throughout the industry.

The Management Side of Small-Plant R & D, by Leland S. Hobson, Management Aids for Small Manufacturers No. 119, 4 pp., processed. Small Business Administration, Washington 25, D. C., December 1960.

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

This leaflet is designed to help owners and managers of small plants understand better the administrative side of technology as a stepping stone toward increased business and better profits. Suggestions to the small-plant manager include: checking his ideas of "research" and "development," knowing what goes on, making research function separate from operation of the plant, reviewing his research budget regularly, keeping his staff quality high and balanced, choosing projects wisely, scheduling research budget-wise as well as time-wise, and using special research-project teams.

Meeting the Risks of Change, by Edward L. Anthony, Small Marketers Aid No. 66, 4 pp., printed. Small Business Administration, Washington 25, D. C., April 1961. Change and risk--two universal factors in business--can weaken or strengthen the small marketer. He can let change push him around or he can meet its risks by using new conditions to his advantage. Two important kinds of change are technological developments and shifts in demand. This leaflet suggests that the small marketer can cut down the risks of change. In many cases, by understanding change and by planning for it, he can use change to strengthen his competitive position. Often, the soundest manager is the one who recognizes a trend in time, but who avoids the "first-or-nothing" gambles. Principles and cases are included which should stimulate thinking on how to meet the risks of change in stores, wholesale houses, and service establishments.

SPINY LOBSTERS:

Aproveitamento das Lagostas do Noroeste Africano (Utilization of Spiny Lobsters from Northeastern Africa), by C. Fernando Costa, Publication No. 36, 126 pp., illus., printed in Portuguese. Gabinete de Estudos das Pescas, Lisbon, Portugal, 1960.

SPOILAGE:

"Role of Psychrophilic Bacteria in Frozen Food Spoilage," by A. C. Peterson and M. F. Gunderson, article, Food Technology, vol. 14, September 1960, pp. 413-417, printed. Food Technology, the Garrard Press, 510 North Hickory, Champaign, Ill.

"Studies on the Method for Testing the Spoilage of Food. X--Errors Involved in OTA's Method for Determination of Histamine," by Atsushi Tsuda and others, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 25, September 1959, pp. 361-367, printed in Japanese with English abstract. Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori, 6-chome, Tokyo, Japan.

SQUID:

"Some Aspects on the Water-Soluble Proteins of Squid Muscle," by Juichiro J. Matsumoto, article, Bulletin of Tokai Regional Fisheries Research Laboratory, no. 20, May 1958, pp. 65-75, printed. Tokai Regional Fisheries Research Laboratory, Tsukushima, Chuo-ku, Tokyo, Japan.

TARIFFS:

Import Tariff System of Denmark, WTIS Part 2, Operations Report No. 61-17, 2 pp., printed, single copy 10 cents. Bureau of Foreign Commerce, U. S.

Department of Commerce, Washington 25, D. C., March 1961.

Venezuela, WTIS Part 2, Operations Report No. 61-18, 2 pp., printed, single copy 10 cents, March 1961.

Mozambique, WTIS Part 2, Operations Report No. 61-19, 2 pp., printed, single copy 10 cents, March 1961.

Sudan, WTIS Part 2, Operations Report No. 61-21, 2 pp., printed, single copy 10 cents, March 1961.

France, WTIS Part 2, Economic Report No. 61-26, 2 pp., printed, 10 cents a single copy, April 1961.

Import Tariff System of Iran, WTIS Part 2, Operations Report No. 60-59, 2 pp., printed, 10 cents. Bureau of Foreign Commerce, U. S. Department of Commerce, Washington, D. C., November 1960. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.)

India, WTIS Part 2, Operations Report No. 60-60, 2 pp., printed, 10 cents, November 1960.

New Zealand, WTIS Part 2, Operations Report No. 60-61, 2 pp., printed, 10 cents, November 1960.

Australia, WTIS Part 2, Operations Report No. 60-62, 2 pp., printed, 10 cents, November 1960.

TENNESSEE VALLEY AUTHORITY:

1959 Annual Report, Report No. 228-59, 13 pp., illus., printed. Fish and Game Branch, Division of Forestry Relations, Tennessee Valley Authority, Norris, Tenn.

TEXAS:

The Marine Fisheries Division of the Texas Game and Fish Commission, 8 pp., illus., printed. The Marine Fisheries Division, Texas Game and Fish Commission, Walton State Bldg., Austin, Texas. A brief description of the Texas marine fisheries and activities of the Marine Fisheries Division. Aiming at improved fishery harvests, study is made of the spawning, feeding, growth, and migration of food fish. From these studies, proper management techniques and protective laws are developed. The Texas Gulf Coast now has a steadily growing reputation as one of the nation's top sport fishing areas. In the commercial field, much work has been done toward locating concentrations of market fish. Private industry has been encouraged, with some success, to establish new fisheries, resulting in increased industrial income to Texas. Shrimp, oysters, and the edible blue crab have received a great deal of attention. Other fishery research studies are described.

THAILAND:

Fisheries Record of Thailand 1959, 50 pp., illus., processed in Thai and English. Statistics Section, Department of Fisheries, Ministry of Agriculture, Bangkok, Thailand, October 1960. Contains statis-

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

tical tables giving annual catch and utilization of marine and fresh-water fish, by kind and provinces; sales of fresh and salted fish and fresh-water fish; and fish-pond production. It also contains data on foreign trade in fishery products; registered fishing vessels; fishing gear; and production of fishery products. Tables include data on salt- and fresh-water shrimp landings and utilization.

TRADE:

Freeing Trade in Europe, 28 pp., printed. British Information Services, 45 Rockefeller Plaza, New York 20, N. Y., December 1960. Outlines the course of European economic integration, the main features of, and the background to, the new economic organizations which have emerged in Europe, and the efforts being made to bring about some form of wider unity. The approach of Britain to the problems, taking into account its other commitments to the Commonwealth and to international trading organizations, are recorded in detail.

TRADE LISTS:

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

Canneries--Italy, 19 pp. (April 1961). Lists the names and addresses, size of firms, and types of products handled by each firm. Includes firms canning fish.

Boat and Ship Builders, Repairers and Chandlers--Brazil, 27 pp. (March 1961). Lists the names and addresses, size of boat and ship builders, etc., and types of equipment handled by each firm. Includes firms dealing in fishing craft.

Oils (Animal, Fish, and Vegetable)--Importers, Dealers, Producers, Refiners, and Exporters--Colombia, 11 pp. (March 1961). Includes basic trade and industry data, and lists the names and addresses, size of firms, and types of products handled by each firm. Includes firms dealing in fish oils.

TROUT:

"Icing of Trout," by P. Hansen, article, Ferskvandsfiskeribladet, vol. 57, no. 3, pp. 34-38, printed in Danish. Ferskvandsfiskeribladet Frederiksdal, Kgs. Lyngby, Denmark.

Observations on the Life History of the Hybrid between Eastern Brook Trout and Lake Trout in Algonquin Park, Ontario, by N. V. Martin and N. S. Baldwin, 11 pp., illus., printed. (Reprinted from Journal of the Fisheries Research Board of Canada, vol. 17, no. 4, 1960, pp. 541-551.) Queen's Printer and Controller of Stationery, Ottawa, Canada.

The Story of New Mexico's Trout Hatcheries, 12 pp., illus., printed. Department of Game and Fish, Santa Fe, New Mexico.

"Studies on the Fat Metabolism of Fish. I--Contents of Fat and Phosphorus During the Growth of Rainbow Trout," by Toyoki Ono, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 24, no. 10,

1959, pp. 858-861, printed in Japanese with English abstract. Japanese Society of Scientific Fisheries, c/o Tokyo University of Fisheries, Shiba-kaigandori, 6-chome, Tokyo, Japan.

TROUT FARMING:

Trout in Farm and Ranch Ponds, Catalog No. A 1.9:2154, 17 pp., illus., printed, 10 cents. U. S. Department of Agriculture, Washington 25, D. C., 1961. (Available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Tells how to plan and manage farm and ranch ponds to grow trout for food and recreation and lists some essentials for commercial production.

"U. S. Trout Industry and Its Foreign Competitors," article, U. S. Trout News, vol. 5, no. 6, March-April 1961, pp. 4-5, 19-22, illus., printed. U. S. Trout Farmers Association, 110 Social Hall Ave., Salt Lake City 11, Utah. An article, based on letters from industry members to a magazine editor, that defines the basic differences between the U. S. and foreign trout industries. Also presents information on how to improve trout flavor and quality through better cultural methods.

TUNA:

Distribution of Fishing Effort and Resulting Tuna Catches from the Eastern Tropical Pacific by Quarters of the Year, 1951-1958, by Franklin G. Alverton, Inter-American Tropical Tuna Commission Bulletin, vol. 4, no. 6, 1960, 128 pp., illus., printed in English and Spanish. Inter-American Tropical Tuna Commission, La Jolla, Calif.

"Problems of Color of Frozen Tuna Meat on Cooking," by T. Yamamoto, article, Refrigeration, vol. 35, March 1960, pp. 1-8, printed. Refrigeration, Nihon Reito Kyokai (Japanese Society of Refrigeration) No. 3, 1-Chome, Ginza Nishi, Chuo-ku, Tokyo.

"Puerto Rico Cannery Packs 100 Tons of Prime Tuna Daily for U. S. Trade," by Harold N. Underhill, article, Canner/Packer (Western Edition), vol. 128, November 1959, pp. 30-31, printed. Canner and Packer, Triad Publishing Co., 59 E. Monroe St., Chicago 3, Ill.

Species and Size Relationships within Schools of Yellowfin and Skipjack Tuna, as Indicated by Catches in the Eastern Tropical Pacific Ocean, by Gordon C. Bradhead and Craig J. Orange, Inter-American Tropical Tuna Commission Bulletin, vol. 4, no. 7, 1960, 46 pp., illus., printed in Spanish and English. Inter-American Tropical Tuna Commission, La Jolla, Calif.

UNDERWATER PHOTOGRAPHY:

Underwater Photography in the Study of Hydromechanical Phenomena, by Joseph D. Richard and Edmond L. Fisher, Final Report 60-4, 11 pp., illus., processed. The Marine Laboratory, Institute of Marine Science, University of Miami, #1 Rickenbacker Causeway, Miami 49, Fla., October 1960.

UNITED KINGDOM:

White Fish Authority Publicity Campaign 1961-1962, 11 pp., illus., processed. White Fish Authority, Lincoln's Inn Chambers, 2/3 Cursitor St., London EC4, England. Covers an outline of the White Fish Authority's campaign to advertise fish. The consumer

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

survey carried out by the Authority in 1960 indicated that, while fish was served from time to time in all but a fraction of households, there was a general indifference to the value of fish among housewives and that more attention should be given to the cooking and serving of fish. Press advertisements, therefore, are designed to give a new interest to fish cookery. They concentrate upon new and interesting ways to cook fish which, while easy and simple, add color and glamour to fish, and they introduce a new theme--fish sauces. Merchandising material is closely integrated and linked with the new advertising theme. Other aspects of the White Fish Authority's educational work are also discussed. Included is a leaflet entitled "How You Can Help to Keep Fish Fresh," which gives a few hints on transporting fish by train; and samples of flyers entitled "Fish with a Difference;" "The Way You Cook Your Fish;" "What's Sauce for the Fish;" and "5-Minute Home Made Sauces."

"World's Largest Fish Centre Opened in London," article, Food Manufacture, vol. 35, October 1960, pp. 435-436, printed. Food Manufacture, Leonard Hill, Ltd., Stratford House, 9 Eden Street, London NW1, England.

U.S.S.R.:

The following English translations of foreign language articles are available from the Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C.

Behavior of a Trawl in Water, by E. A. Lebedev, OTS 60-51180, 7 pp., illus., processed, 50 cents. (Translated from Rybnoe Khozyaistvo, vol. 35, no. 2, 1959, pp. 39-42.)

Our Observations on the Behavior of the Trawl in Water, by N. A. Lyapin, OTS 60-51080, 5 pp., illus., processed, 50 cents. (Translated from Rybnoe Khozyaistvo, vol. 35, no. 2, 1959, pp. 43-46.)

Some Suggestions on the Standardization of Far-Eastern Trawls, by A. V. Lestev and G. E. Grishchenko, OTS 60-51129, 11 pp., illus., processed, 50 cents. (Translated from Rybnoe Khozyaistvo, vol. 35, no. 2, 1959, pp. 33-39.)

Deep-Sea Fish of Far Eastern Seas of the U.S.S.R., by T. S. Rass, OTS 60-21099, 21 pp., illus., processed, 50 cents, 1960. (Translated from Russian, Zoologicheskii Zhurnal, vol. 33, no. 6, 1954, pp. 1312-1324.)

Determining the Diurnal Amount of Food Consumed by the Young of Sockeye Salmon and the Three-Spined Stickleback by the Use of the Respiration Method, by E. M. Krokhin, OTS 60-21106, 21 pp., illus., processed, 50 cents, 1960. (Translated from Izvestiya Tikhookeanskogo Nauchno-Issledovatel'skogo Insituta Rybnogo Khozyaistva i Okeanografii, vol. 44, 1957, pp. 97-110.)

Kuroshio and the Population of the Amur Fall Chum Salmon (ONCORHYNCHUS KETA (Walb.) Infrasp. Autumnalis), by I. B. Birman, OTS 60-21095, 9 pp., illus., printed, 50 cents. (Translated from Voprosy Ikhtiologii, no. 8, 1957, pp. 3-7.)

Morpho-Biological and Morphometric Characteristics of Pink Salmon of the Amgun' and Iska Rivers, by R. Enyutina, OTS 60-21097, 8 pp., processed, 50 cents, 1960. (Translated from Russian, Izvestiya Tikhookeanskogo Nauchno-Issledovatel'skogo Insituta Rybnogo Khozyaistva i Okeanografii, no. 41, 1954, pp. 333-336.)

The Most Numerous Deep-Sea Fish in Far Eastern Seas--The Cyclothone--CYCLOTHONE MICRODON Guenther (Pisces, Gonostomidae), by V. A. Mukhacheva, OTS 60-21110, 16 pp., illus., processed, 50 cents, 1960. (Translated from Russian, Akademiya Nauk, SSSR, Trudy Insituta Okeanologii, vol. II, 1954, pp. 206-219.)

Saury Concentration Areas and Fisheries in the Pacific Ocean, by L. V. Klyuev, OTS 60-21100, 9 pp., illus., processed, 50 cents, 1960. (Translated from Rybnoe Khozyaistvo, vol. 34, no. 5, 1958, pp. 8-13.)

Our Experience in Introducing Complex Mechanization, by K. P. Orishich, OTS 60-21146, 9 pp., illus., processed, 50 cents, 1960. (Translated from Rybnoe Khozyaistvo, vol. 34, no. 7, 1958; pp. 43-49.)

West Kamchatka Salmon, Their Commercial Exploitation and Reproduction, by R. S. Semko, OTS 60-21123, 14 pp., processed, 50 cents, 1960. (Translated from Russian, Akademiya Nauk SSSR, Ikhtiologicheskaya Komissiya, Trudy Soveshchaniï, no. 4, 1954, pp. 38-47.)

VESSELS:

Boat Building--A Complete Handbook of Wooden Boat Construction, by H. I. Chapelle, 624 pp., illus., printed, 50s. (about US\$7). George Allen and Unwin, Ltd., 40 Museum St., London WC1, England, 1956.

WEATHER CHARTS:

Coastal Warning Facilities Charts, 1961, 5 charts, 2 pp. each, processed, 10 cents each. Weather Bureau, U. S. Department of Commerce, Washington, D. C., 1961. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Charts show stations displaying storm warnings; explanation of warning displays; and schedules of AM and FM radio and TV stations that broadcast weather forecasts and warnings. The charts cover Eastport, Maine, to Montauk Point, N.Y.; Montauk Point, N. Y., to Manasquan, N. J.; Manasquan, N. J., to Cape Hatteras and Chesapeake Bay; Cape Hatteras to Brunswick, Ga.; and Eastern Florida.

WEST INDIES:

"W. I. Fisheries Development 1959/60," by Ernest Hess, article, West Indies Fisheries Bulletin, no. 1, January-February 1961, pp. 1-3, processed. Federal Fisheries Adviser, Ministry of Natural Resources and Agriculture, Federal House, Port-of-Spain, Trinidad. Discusses mechanization of fishing boats, introduction of experimental fishing vessels, improvement of shore facilities, progress in distribution of fishery products, advances in fish culture and conservation, formation of cooperatives, and progress in research during 1959/60.

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

WHALE:

Preservation of Whale Meat, by Roland G. Booth, U. S. Patent No. 2,934,440, April 26, 1960. U. S. Patent Office, Department of Commerce, Washington 25, D. C.

Whaling Gazette), vol. 50, no. 3, March 1961, pp. 111-113, printed in Norwegian and English. Norsk Hvalfangst-Tidende, Sandefjord, Norway. Presents the results of the 1960/61 whaling season for the Norwegian, Japanese, British, and Netherlands whaling fleets. Includes statistical tables showing yield in barrels of whale oil for each factoryship, and comparisons with the previous season.

WHALING:

"Catch Reports--Pelagic Catch in the Season 1960/61," article, Norsk Hvalfangst-Tidende (The Norwegian



CORRECTION

GREAT LAKES UNIFORM FISHERY REGULATIONS

In the April 1961 issue of Commercial Fisheries Review, p. 43, a news item appeared under the headings: "Great Lakes Fisheries Commission. Uniform Regulations Being Drafted." The article pointed out that model legislation is being drafted to establish uniform regulations for commercial and sport fishing in the Great Lakes. The group drafting this legislation is the Great Lakes Commission, a state Compact group, and not the Great Lakes Fisheries Commission (an international fishery commission) as indicated in the article. Also, the scientific name given in the lake trout sketch should have read "Cristivomer namaycush," but we understand that taxonomists now have assigned the scientific name of "Salvelinus namaycush" to the lake trout.

CORRECTION

APPLICATION OF STEAMING AND VACUUM TO SHUCKING AND CLEANING SCALLOPS

The article "Application of Steaming and Vacuum to Shucking and Cleaning Scallops," by Harvey R. Bullis, Jr. and Travis D. Love, which appeared in the May 1961 (pp. 1-4) issue of Commercial Fisheries Review has two errors. On page 2, the first sentence of the paragraph subheaded "Procedure" should read: "The scallops were placed by hand in a flat, shallow pan, where they were held for 20 seconds in sufficient boiling water (approximately $\frac{3}{4}$ of an inch) to cover the lower shell."

The last two column headings ("Moisture" and "Ash") in table 1, page 3, are reversed. The corrected table follows:

Table 1 - Proximate Composition of Scallop Viscera and Meats (Muscles)				
Sample	Protein	Oil	Moisture	Ash
 (Percent)			
Viscera	9.7	2.5	83.1	4.7
Viscera	9.5	2.6	82.7	5.2
Viscera	9.5	2.7	82.6	5.2
Edible Meats (Avg. of 2 samples) ..	16.2	0.8	81.4	1.6

JELLIED EELS POPULAR IN GREAT BRITAIN

Each week throughout the year between 15,000 and 20,000 foil cartons of jellied eels are prepared in a factory in East London and dispatched by road and rail all over England. Some of the cartons are sold in shops, others in hotels and clubs, such as Fleet Street's famous Wig and Pen Club. Many of them go to markets.

Boxes of live eels are brought daily from Billingsgate and, until they are needed, are stored in a refrigerator of 500 cu. ft. capacity at the entrance to the factory. From there the eels are taken to an adjoining room, where they are gutted and sliced.

They are then washed in a special machine in which they are swirled about under a spray of water.

All of this preparatory work is done before the eels are taken into the main factory building.

The great bane of the eel trade is hooks. Many of the eels are line-caught and the hooks, or fragments of them may remain hidden in the meat even after careful cleaning. The firm has installed electronic testing equipment just inside the entrance to the factory. This machine detects any metal in the meat of the eels.

The eels are then boiled in large stainless steel containers; the broth which results from the cooking is used to make the jelly.

Eels caught in the summer months in Ireland or on the Continent need only between 5 and 10 minutes of simmering, while eels received in winter require between 15 and 20 minutes. Those received from the Mediterranean need from 25 to 35 minutes.

When cooked, some eels are packed in cartons, others in bowls. The bowls of jellied eels, which sell mainly in the summer months, are sent mostly to stalls, many of them at seaside resorts, and to race meetings.

Those sections of eel to be packed in cartons are placed in the cartons on a conveyor belt. As they travel along the belt they are automatically filled with juice and lidded.

The cartons are packed in corrugated cardboard boxes, which act as insulation, in each of which is packed a packet of shaped wooden spoons.

There are two refrigerators, of 3,000 cu. ft. and 1,500 cu. ft. capacity, for storing the bowls and cartons prior to selling. These are kept at a temperature of 40° F. It is important not to freeze jellied eels, as after thawing a film of water forms on top of the jelly which is harmful to the eels.

Altogether the firm supplies between 800 and 900 outlets, mainly in the London area, and they have 60 showcase refrigerators which they loan, without charge, for display of their products to the best advantage.

Traditionally, jellied eels are a summer delicacy bought from a stall, possibly at the seaside or outside a pub. By using modern methods this firm has made them available through more outlets to a wider public throughout the year. (Fish Trades Gazette, March 18, 1961.)

SEA SCALLOP SOUFFLE SNACKS



- | | |
|--|---|
| 1 pound scallops, fresh or frozen | 1 $\frac{1}{2}$ teaspoons lemon juice |
| 1 quart boiling water | $\frac{1}{4}$ teaspoon salt |
| 2 tablespoons salt | $\frac{1}{4}$ teaspoon Worcestershire sauce |
| $\frac{1}{4}$ cup mayonnaise or salad dressing | Dash pepper |
| 1 tablespoon chopped parsley | 1 egg white, beaten |
| 2 tablespoons drained sweet pickle relish | |

Thaw frozen scallops. Remove any shell particles and wash. Place in boiling salted water. Cover and return to the boiling point. Simmer for 3 to 4 minutes, depending on size. Drain. Combine all ingredients except scallops and egg white. Mix well. Fold into egg white. Place scallops on a well-greased cooky sheet, 15x12 inches. Top each scallop with mayonnaise mixture. Broil about 3 inches from source of heat for 3 to 4 minutes or until brown. Makes about 36 hors d'oeuvres.