

FISH AND WILDLIFE SERVICE PUBLICATIONS

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- CFS - CURRENT FISHERY STATISTICS OF THE UNITED STATES.
 FL - FISHERY LEAFLETS.
 MNL - REPRINTS OF REPORTS ON FOREIGN FISHERIES.
 SEP. - SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.
 SSR. - FISH. - SPECIAL SCIENTIFIC REPORTS- FISHERIES (LIMITED DISTRIBUTION).

Number	Title
CFS-3032	- Alaska Fisheries, 1961 Annual Summary, 8 pp., (Revised).
CFS-3073	- Shrimp Landings, July 1962, 8 pp.
CFS-3080	- Frozen Fish Report, December 1962, 8 pp.
CFS-3082	- Florida Landings, November 1962, 8 pp.
CFS-3089	- Louisiana Landings, November 1962, 2 pp.
CFS-3093	- Manufactured Fishery Products, 1961 Annual Summary, 7 pp.
CFS-3095	- New York Landings, November 1962, 4 pp.
CFS-3096	- Fish Sticks and Fish Portions, October-December 1962, 2 pp.
CFS-3097	- California Landings, October 1962, 4 pp.
CFS-3098	- Maine Landings, November 1962, 4 pp.
CFS-3101	- Virginia Landings, November 1962, 4 pp.
CFS-3102	- Frozen Fishery Products, 1962 Annual Summary, 14 pp.
CFS-3103	- Louisiana Landings, December 1962, 2 pp.
CFS-3104	- Rhode Island Landings, November 1962, 3 pp.
CFS-3108	- Fish Meal and Oil, December 1962, 2 pp.
CFS-3109	- Florida Landings, December 1962, 8 pp.
CFS-3110	- Maryland Landings, December 1962, 3 pp.
CFS-3114	- Georgia Landings, December 1962, 2 pp.
CFS-3116	- South Carolina Landings, December 1962, 2 pp.
FL-28	- Fish Baits: Their Collection, Care, Preparation, and Propagation, 25 pp., August 1962 (Revised).
FL-293	- List of Fishermen's and Fish Shore Workers' Unions in the United States, 8 pp., August 1962 (Revised).
FL-444	- Some Publications on Game-Fish and Sport Fishing, 11 pp., June 1962 (Revised).
FL-459	- Freshwater Fish Diseases Caused by Bacteria Belonging to the Genera <i>Aeromonas</i> and <i>Pseudomonas</i> , by S. F. Snieszko, 7 pp., August 1962 (Revised).
FL-538	- Silver Hake, by Raymond L. Fritz, 9 pp., illus., May 1962. The silver hake or whiting (<i>Mer-</i>

luccius bilinearis) is one of the few fish used for a variety of products--for human food, reduction, and animal food. It is one of the most abundant fish of our Atlantic coast and is sought by a large and varied fleet. This leaflet discusses the distribution and movements of the silver hake; its spawning, tagging, growth, and feeding habits. Also covers the commercial fishery, how silver hake are caught, and methods of handling and processing.

THE FOLLOWING MARKET NEWS LEAFLET IS AVAILABLE FROM THE FISHERY MARKET NEWS SERVICE, U. S. BUREAU OF COMMERCIAL FISHERIES, SUITE 611, WYATT BLDG., 777 14TH ST. NW., WASHINGTON 5, D. C.

Number	Title
MNL-52	- Menhaden Fish Oil Prices--New York City, 1950-1962 and January 1963, 6 pp.
Sep. No. 669	- Present and Future Factors that May Influence Fish Meal Demand.
Sep. No. 670	- Oyster Industry of Chesapeake Bay, South Atlantic, and Gulf of Mexico.
Sep. No. 671	- Eradication of Piranha in Inland Waters.
SSR-Fish. No. 405	- Interchange of Stream and Intra-gravel Water in a Salmon Spawning Riffle, by Walter G. Vaux, 15 pp., illus., March 1962.
SSR-Fish. No. 425	- Chum Salmon Resources of Alaska from Bristol Bay to Point Hope, by Chester R. Mattson, 25 pp., illus., May 1962.
SSR-Fish. No. 426	- An Electrical Oxygen-Temperature Meter for Fishery Biologists, by Kermit E. Sneed and Harry K. Dupree, 16 pp., illus., June 1962.
SSR-Fish. No. 432	- Protein and Calorie Levels of Meat-Meal, Vitamin-Supplemented Salmon Diets, by Bobby D. Combs and others, 10 pp., July 1962.
SSR-Fish. No. 436	- Oceanographic and Biological Data, Hawaiian Waters, January-July 1961, by Kenneth Sherman and Robert P. Brown, 46 pp., illus. July 1962.

America's Rare Sea Mammals, Conservation Note 9, 8 pp., illus., processed, June 1962. Discusses characteristics of sea mammals and their near-extinction along the coasts of North America. Describes the sea otter, northern fur seal, Guadalupe fur seal, Pacific walrus, and polar bear. Also covers the

northern elephant seal, Hawaiian monk seal, Florida manatee, "right" whales, and gray whales.

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

Baltimore) Monthly Summary--Fishery Products, December 1962, 8 pp. (Market News Service, U.S. Fish and Wildlife Service, 103 S. Gay St., Baltimore 2, Md.) Receipts of fresh- and salt-water fish and shellfish at Baltimore by species and by states and provinces; total receipts by species and comparison with previous periods; and wholesale prices for fresh fishery products on the Baltimore market; for the month indicated.

California Fishery Market News Monthly Summary, Part I - Fishery Products Production and Market Data, January 1963, 13 pp. (Market News Service, U.S. Fish and Wildlife Service, Post Office Bldg., San Pedro, Calif.) California cannery receipts of tuna and tunalike fish and other species used for canning; pack of canned tuna, tunalike fish, sardines, mackerel, and anchovies; market fish receipts at San Pedro, Santa Monica, and Eureka areas; California and Arizona imports; canned fish and frozen shrimp prices; and ex-vessel prices for cannery fish; for the month indicated.

California Fishery Market News Monthly Summary, Part II - Fishing Information, January 1963, 19 pp., illus. (U.S. Bureau of Commercial Fisheries, Biological Laboratory, P. O. Box 6121, Pt. Loma Station, San Diego 6, Calif.) Contains sea-surface temperatures, fishing and research information of interest to the West Coast tuna-fishing industry and marine scientists; for the month indicated.

Chicago) Monthly Summary of Chicago's Wholesale Market Fresh and Frozen Fishery Products Receipts, Prices, and Trends, January 1963, 13 pp. (Market News Service, U.S. Fish and Wildlife Service, U. S. Customs House, 610 South Canal St., Room 1014, Chicago 7, Ill.) Receipts at Chicago by species and by states and provinces for fresh- and salt-water fish and shellfish; and weekly wholesale prices for fresh and frozen fishery products; for the month indicated.

Gulf of Mexico Monthly Landings, Production and Shipments of Fishery Products, January 1963, 12 pp. (Market News Service, U. S. Fish and Wildlife Service, Room 609, 600 South St., New Orleans 12, La.) Gulf States shrimp, oyster, finfish, and blue crab landings; crab meat production; LCL express shipments from New Orleans; wholesale prices of fish and shellfish on the New Orleans French Market; fishery imports at Port Isabel and Brownsville, Texas, from Mexico; Gulf menhaden landings and production of meal, solubles, and oil; and sponge sales; for the month indicated.

Monthly Summary of Fishery Products Production in Selected Areas of Virginia, North Carolina, and Maryland, February 1963, 4 pp. (Market News Service, U. S. Fish and Wildlife Service, Post Office Box 447, Hampton, Va.) Landings of food fish and shellfish and production of crab meat and shucked oysters for the Virginia areas of Hampton Roads, Chincoteague, Lower Northern Neck, and Lower Eastern Shore; and the Maryland areas of Crisfield, Cambridge, and

Ocean City; and the North Carolina areas of Atlantic, Beaufort, and Morehead City; together with cumulative and comparative data on fishery products and shrimp production; for the month indicated.

New England Fisheries--Monthly Summary, January 1963, 23 pp. (Market News Service, U. S. Fish and Wildlife Service, 10 Commonwealth Pier, Boston 10, Mass.) Review of the principal New England fishery ports. Presents data of fishery landings by ports and species; industrial fish landings and ex-vessel prices; imports; cold-storage stocks of fishery products in New England warehouses; fishery landings and ex-vessel prices for ports in Massachusetts (Boston, Gloucester, New Bedford, Provincetown, and Woods Hole), Maine (Portland and Rockland), Rhode Island (Point Judith), and Connecticut (Stonington); frozen fishery products prices to primary wholesalers at Boston, Gloucester, and New Bedford; and Boston Fish Pier and Atlantic Avenue fishery landings and ex-vessel prices by species; for the month indicated.

(Seattle) Washington and Alaska Receipts and Landings of Fishery Products for Selected Areas and Fisheries, Monthly Summary, January 1963, 7 pp. (Market News Service, U. S. Fish and Wildlife Service, 706 Federal Office Bldg., 909 First Avenue, Seattle 4, Wash.) Includes Seattle's landings by the halibut and salmon fleets reported through the exchanges; landings of halibut reported by the International Pacific Halibut Commission; landings of otter-trawl receipts reported by the Fishermen's Marketing Association of Washington; local landings by independent vessels; coastwise shipments from Alaska by scheduled and non-scheduled shipping lines and airways; imports from British Columbia via rail, motor truck, shipping lines, and ex-vessel landings; and imports from other countries through Washington customs district; for the month indicated.

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

Bioassay and Use of Pituitary Materials to Spawn Warm-Water Fishes, by Howard P. Clemens and Kermit E. Sneed, Research Report 61, 35 pp., illus., 25 cents, 1962.

"Development and Distribution of the Short Bigeye, Pseudopriacanthus altus (Gill), in the Western North Atlantic," by David K. Caldwell, Fishery Bulletin 203 (from Fishery Bulletin of the Fish and Wildlife Service, vol. 62, pp. 103-150), 52 pp., illus., printed, 35 cents, 1962.

"Effect of Certain Electrical Parameters and Water Resistivities on Mortality of Fingerling Silver Salmon," by John R. Pugh, Fishery Bulletin 208 (from Fishery Bulletin of the Fish and Wildlife Service, vol. 62, pp. 223-234), 16 pp., illus., printed, 15 cents, 1962.

"Food of Albacore Tuna, *Thunnus germon* (Lacepede), in the Central and Northeastern Pacific," by Robert T. B. Iversen, Fishery Bulletin 214 (from Fishery Bulletin of the Fish and Wildlife Service, vol. 62 pp. 459-481), 27 pp., illus., printed, 25 cents, 1962.

"Hydrological Characteristics of Tampa Bay Tributaries," by Alexander Dragovich and Billie Z. May, Fishery Bulletin 205 (from Fishery Bulletin of the Fish and

Wildlife Service, vol. 62, pp. 163-176), 18 pp., illus., printed, 20 cents, 1962.

Limnological Organic Analyses by Quantitative Dichromate Oxidation, by John A. Maciolek, Research Report 60, 67 pp., illus., 40 cents, 1962.

"Midwater Trawling for Forage Organisms in the Central Pacific 1951-1956," by Joseph E. King and Robert T. B. Iversen, Fishery Bulletin 210 (from Fishery Bulletin of the Fish and Wildlife Service, vol. 62, pp. 271-321), 55 pp., illus., printed, 40 cents, 1962.

"Relationships among North American Salmonidae," by George A. Rounsefell, Fishery Bulletin 209 (from Fishery Bulletin of the Fish and Wildlife Service, vol. 62, pp. 235-270), 40 pp., illus., printed, 30 cents, 1962.

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.

*ANY LISTED PUBLICATION PRECEDED BY AN ASTERISK IS AVAILABLE ON LOAN FROM THE NATIONAL LENDING LIBRARY FOR SCIENCE AND TECHNOLOGY, D. S. I. R., BOSTON SPA, YORKSHIRE, ENGLAND.

ALGAE:

Physiology and Biochemistry of Algae, by Ralph A. Lewin, 929 pp., illus., printed \$32. Academic Press Inc., 125 E. 23rd St., New York 10, N. Y., 1963. A reference source covering the major topics in experimental phycology, the study of algae as living organisms, and summarizing much of the recent progress in the field.

"Protein Value and the Amino Acid Deficiencies of Various Algae for Growth of Rats and Chicks," by G. A. Leveille, H. E. Sauberlich, and J. W. Shockley (Fitzsimons General Hospital, Denver, Colo., article, Journal of Nutrition, vol. 76, April 1962, pp. 423-428, printed. American Institute of Nutrition, 36th St. at Spruce, Philadelphia 4, Pa.

ARCTIC:

"Arctic Research Poses Many Problems," by Bruce Woodland, article, Trade News, vol. 15, no. 3, September 1962, pp. 8-10, illus., processed. Information and Consumer Service, Department of Fisheries, Ottawa, Canada. Describes the experiences of a scientific team, including a fisheries specialist, which carried out studies on the Prince Gustaf Adolph Sea, in an area roughly six hundred miles from the North Pole, in the spring of 1961. No fish was taken, but plankton hauls to depths of 400 feet yielded some shrimp-like organisms. Many important contributions to the fields of oceanography and biology of arctic seas were made, according to the author.

ARCTIC CHAR:

"Landlocked Arctic Char in Newfoundland," by J. J. Quigley, article, Trade News, vol. 15, no. 3, Sep-

tember 1962, pp. 11-12, illus., processed, Information and Consumer Service, Department of Fisheries, Ottawa, Canada. First reported in Newfoundland in 1949, the landlocked Arctic char (Salvelinus alpinus) has since been discovered to be distributed widely in the lakes and ponds throughout the province. A Canadian Department of Fisheries survey of this species in 1958 produced valuable information on spawning and growth. Originally an anadromous species, in many areas the Arctic char has become completely cut off from migration to salt-water and has adapted to living as a fresh-water fish. Potentialities for a sport fishery are excellent, according to the author.

AUSTRALIA:

Commonwealth of Australia Fishing Industry Act 1956, Sixth Annual Report, 8 pp., processed. Commonwealth Fisheries Office, Department of Primary Industry, Canberra, Australia, 1962. The sixth annual report on operations of the Trust Account during 1961-62. The Fisheries Development Trust Account was established under the Act for the purpose of financing activities towards the development of the fishing industry in Australia. This report discusses the Trust Account, applications for assistance, the Great Australian Bight trawling project, and the Western Australia tuna survey. Also covers the training school for fisheries field officers, research on Western Australian crayfish, and other related information.

BEHAVIOR OF FISH:

"Notions of Niche and Competition among Animals, with Special Reference to Freshwater Fish," by A. H. Weatherley, article, Nature, vol. 197, no. 4862, January 5, 1963, pp. 14-17, illus., printed, single copy 4s. (about 56 U. S. cents). St. Martin's Press, Inc., 175 Fifth Ave., New York 10, N. Y.

BEHEADING FISH:

"Beheading of Fish," by R. G. T. Baader, article, Food Manufacture, vol. 37, June 1962, p. 306, printed. Leonard Hill, Ltd., Stratford House, 9 Eden St., London NW1, England.

BIOCHEMISTRY:

"A Preliminary Report on the Performic Acid Oxidation Products of Fish, Whale, and Ox Insulins," by Sasao Nishizaki, article, Chemical Abstracts, vol. 55, November 13, 1961, 23604i, printed. The American Chemical Society, 1155 16th St. NW., Washington 6, D. C.

BYPRODUCTS:

"Fish Byproducts: Preservation of Raw Material" article, Torry Research Station, Annual Report 1960, p. 27, printed. Torry Research Station, Aberdeen, Scotland, 1961.

CAMEROON FEDERAL REPUBLIC:

Investment Law of the Federal Republic of Cameroon, OBR-62-32, 8 pp., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., December 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Discusses the investment code of the French Republic of Cameroon, and background and related information of use to possible United States investors.

CANADA:

Boatbuilding and Repair (Formerly The Boat Building Industry), 1960, 15 pp., printed, 50 Canadian cents.

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Queen's Printer and Controller of Stationery, Ottawa, Canada, 1963. Data presented in this report reflect the implementation of the revised Standard Industrial Classification (SIC) which is being used by the Dominion Bureau of Statistics in its compilation of 1960 industry statistics. An annual census of manufacturers covering establishments primarily engaged in building and repairing all types of boats.

Canada's Trade Relations with South American Countries," article, Foreign Trade, vol. 118, no. 12, December 15, 1962, pp. 28-30, printed, single issue 20 Canadian cents. Queen's Printer and Controller of Stationery, Ottawa, Canada.

Fisheries Statistics, Alberta and Northwest Territories, 1961, 22 pp., printed in French and English, 50 Canadian cents. Queen's Printer and Controller of Stationery, Ottawa, Canada, February 1963. Contains tables giving the value of fish landed in Alberta, 1954-1961; and the quantity and value of fish landed by fisheries districts, 1960-1961. Also contains tables showing value of fish landings in the Northwest Territories, 1954-1961; quantity and value of fishery products by species, 1960-1961; capital equipment used in the primary fisheries operations; and the number of persons engaged in the fisheries.

Fisheries Statistics, Manitoba, 1961, 11 pp., printed in French and English, 50 Canadian cents. Queen's Printer and Controller of Stationery, Ottawa, Canada, January 1963. Contains tables giving the value of fish landed in Manitoba, 1954-1961; quantity and value of landings by species and fisheries districts, 1960-1961; quantity and value of fishery products by species; capital equipment used in the primary fishery operations; and the number of persons engaged in the fisheries.

Fisheries Statistics, Newfoundland, 1961, 26 pp., illus., printed in French and English, 50 Canadian cents. Queen's Printer and Controller of Stationery, Ottawa, Canada, December 1962. Contains tables giving the value of fish and shellfish landed in Newfoundland, 1957-1961; quantity and value of landings by species and fisheries areas, 1960-1961; quantity and value of fishery products by species; capital equipment used in the primary fishery operations; and the number of persons engaged in the fisheries.

Fisheries Statistics, Ontario, 1961, 12 pp., illus., printed in French and English, 50 Canadian cents. Queen's Printer and Controller of Stationery, Ottawa, Canada, December 1962. Contains tables giving the value of fish landed in Ontario, 1954-1961; quantity and value of landings by species and fisheries districts, 1960-1961; capital equipment used in the primary fisheries operations; number of persons engaged in the fisheries; and new capital investment in the commercial fishery.

Fisheries Statistics, Prince Edward Island, 1961, 25 pp., illus., printed in French and English, 50 Canadian cents. Queen's Printer and Controller of Stationery, Ottawa, Canada, February 1963. Consists of tables giving the quantity and value of fish and shellfish landed in Prince Edward Island, 1949-1961; quantity and value of landings by species and fisheries districts, 1960-1961; capital investment in the commercial fisheries; classification of powered

fishing craft by over-all length; persons engaged in primary operations by fisheries districts and in the major fisheries of Prince Edward Island.

Fisheries Statistics, Saskatchewan, 1961, 9 pp., printed in French and English, 50 Canadian cents. Queen's Printer and Controller of Stationery, Ottawa, Canada, January 1963. Contains data on the value of fish landed in Saskatchewan, 1954-1961; quantity and value of landings by species, 1960-1961; quantity and value of landings by major species and by lakes; capital equipment in primary fisheries operations; and the number of persons engaged in the primary fisheries operations.

CANNED FISH:

"Accumulation of Salts of Tin in Canned Fish," by F. M. Purikov, article, Izvest. Vysshikh Ucheb. Zavedenii Pishch. Tekh., vol. 4, no. 23, 1961, pp. 100-105, printed. Izvest. Vysshikh Ucheb. Zavedenii Pishch. Tekh., Izd Krasnodarskogo Inst. Tishchevoi Promyshlennosti, Ul. Krasnaya, 135, Krasnodar, U.S.S.R.

"Total Weight and Fish Content of Canned Fish," by W. Schwabe, article, Deutsche Lebensmittel-Rundschau, vol. 57, 1961, pp. 62-68, printed. Deutsche Lebensmittel-Rundschau, Wissenschaftliche Verlagsgesellschaft, m.b.H., Postfach 40, Stuttgart 1, Germany.

CANNING:

"Canning: Chemical Changes in Herring during Heat Processing," article, Torry Research Station, Annual Report 1960, pp. 25-26, printed. Torry Research Station, Aberdeen, Scotland, 1961.

"Experiments on Canning Fresh-Water Fish. II - Smelts from West End of Lake Erie," by A. W. Lantz, and L. C. Dugal, article, Progress Reports of the Biological Station and the Technological Unit No. 1, pp. 28-30, printed. Fisheries Research Board of Canada, Technological Unit, London, Ontario, Canada, September 1959.

"The Manufacture of Sterilized Mussel and Oyster Products," by H. Houwing, article, Conserva, vol. 10, no. 2, 1961, pp. 29-31, printed in Dutch. Moorman's Periodieke Pers N. V., 1 Zwarteweg, The Hague, Netherlands.

CHILE:

Informe de las Actividades Desarrolladas durante la Expedición MAR - CHILE II (Report on the Activity Developments during the Expedition "Sea - Chile II"), by Omar Rojas Jara, 16 pp., processed in Spanish. Ministerio de Agricultura, Departamento de Pesca y Caza, Santiago, Chile, August 1962.

"Proyecto sobre Produccion y Desarrollo de Pesces de Importancia Comercial en el Norte de Chile" (Project for the Production and Development of Fish of Commercial Importance in Northern Chile), by Walter Fischer and Luis Ramorino, Divulgacion Pesquera Cartilla No. 5, August 1962, 14 pp., illus., processed in Spanish. Ministerio de Agricultura, Direccion de Agricultura y Pesca, Departamento de Pesca y Caza, Santiago, Chile.

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CLAMS:

"Animal Food from Clam Waste," by John Marvin and Edward E. Anderson, article, Chemical Abstracts, vol. 56, April 16, 1962, 9182g, printed. The American Chemical Society, 1155 16th St. NW., Washington, D. C.

"Proteins of Shellfish. IX--Components of Shell Liquid of Clam," by H. Baba, article, Chemical Abstracts, vol. 55, October 30, 1961, 22629e, printed. The American Chemical Society, 1155 16th St. NW., Washington, D. C.

COMMON MARKET:

"The Common Market: How Would Entry Affect Britain's Fishing Industry?" article, World Fishing, vol. 12, no. 1, January 1963, pp. 58-60, 63, illus., printed, single copy 3s. (about 42 U.S. cents). World Fishing, John Trundell & Partners Ltd., St. Richard's House, Eversholt St., London NW1, England.

COMPOSITION:

"Acid-Soluble Phosphorus Compounds and Free Sugars in Fish Muscle and Their Origin," by H. L. A. Tarr and M. Leroux, article, Canadian Journal of Biochemistry and Physiology, vol. 40, May 1962, pp. 571-589, printed. National Research Council, Ottawa, Canada.

"Chemical Composition of Some South African Marine Products," by P. G. Celliers, article, Chemical Abstracts, vol. 56, May 14, 1962, 12044c, printed. The American Chemical Society, 1155 16th St. NW., Washington, D. C.

"Seasonal Variations of Chemical Composition of Fish," by Eliezer de Carvalho Rios (Ministry of Agriculture, Rio Grande, Brazil), article, Chemical Abstracts, vol. 56, July 9, 1962, 1389d, printed. The American Chemical Society, 1155 16th St. NW., Washington, D. C.

CONGO REPUBLIC (BRAZZAVILLE):

Investment Law of the Republic of Congo (Brazzaville), by A. A. Wilken, Jr., OBR-62-15, 12 pp., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., December 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Contains the full text of the Investment Code of the Republic of the Congo (Brazzaville), and presents details of its enactment. The Code sets forth certain rights or guarantees of all business ventures in the country and establishes three categories under which fiscal and other privileges can be accorded to firms investing in new industries or expanding existing industrial activities.

CRAB MEAT:

"Prevention of Formation of Magnesium Ammonium Phosphate in Canned Crabs," by Akio Yamada, article, Chemical Abstracts, vol. 56, June 11, 1962, 14683d, printed. The American Chemical Society, 1155 16th St. NW., Washington, D. C.

DEEP-SEA DIVING:

"Physiological Problems of Deep-Sea Diving," by Stanley Miles, article, New Scientist, vol. 15, no. 306, September 27, 1962, pp. 671-673, illus., printed. New Scientist, Cromwell House, Fulwood Pl., High Holborn, London WC1, England.

DEFROSTING:

"Defrosting Foods by Radio Frequency," article, Food Technology, vol. 16, July 1962, pp. 27-28, printed. The Garrard Press, 510 N. Hickory, Champaign, Ill.

DENMARK:

Fiskeriberetning for Aret 1961 (The Ministry of Fisheries Annual Report for 1961), 137 pp., illus., printed in Danish with English summary, Kr. 7.50 (about US\$1.09). Fiskeriministeriet, 1 Kommission Hos. G.E.C. Gad, Copenhagen, Denmark. A report on the Danish fishing industry during 1961. Includes information and statistical tables on number of fishermen employed, fishing fleet, fishing gear, and landings of fish and shellfish. Also contains information on trout farms; production of canned, filleted, and smoked fish; and foreign trade in fishery products.

ECHO-SOUNDER:

"Searching the Sea with Sound," by D. G. Tucker, article, New Scientist, vol. 15, July 19, 1962, pp. 134-136, printed. New Scientist, Cromwell House, Fulwood Pl., High Holborn, London WC1, England.

ECOLOGY:

"Controlling Experimental Conditions in Studies of Eggs and Larvae of Aquatic Forms," by V. L. Loosanoff, article, American Zoologist, vol. 2, no. 3, August 1962, pp. 426-427, printed. American Society of Zoologists, 104 Liberty St., Utica, N. Y.

ECUADOR:

Industrial Development Law of Ecuador, by Lawrence J. Comella, OBR-62-17, 12 pp., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., December 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, 25, D. C.) Discusses the old Law of 1957 and the new emergency decree-law of August 9, 1962, promulgated to further Ecuador's industrialization. "The replacement of imports by goods manufactured in Ecuador and the production of new items for exportation would constitute the elements that would produce this effect," according to the report. Includes, also, a translation of the new law.

FARM PONDS:

Fish Management in New York Farm Ponds, by A. W. Eipper and H. A. Regier, Cornell Extension Bulletin 1089, 36 pp., illus., printed. New York State College of Agriculture, Cornell University, Ithaca, N. Y., July 1962. Discusses the types of fish suitable to stocking, location and construction features, stocking regulations and sources of fish, and pond maintenance. Also covers the biology and management of trout ponds, bass-shiner ponds, bass-bluegill ponds, and others. According to the authors, "There are more than 18,000 farm ponds in New York State and new ones are being constructed at the rate of about 1,000 a year."

FAUNA:

MEEKIA: Enigmatic Cretaceous Pelecypod Genus, by Louella Rankin Saul and Willis Parkison Pope, 55 pp., illus., printed, \$1.25. University of California Press, Berkeley 4, Calif., 1963.

FEDERAL INCOME TAX:

Rules for Deducting Travel, Entertainment, and Gift Expenses for 1962; New Recordkeeping Rules for

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1963, Document No. 5049 (1-63), 20 pp., printed, Internal Revenue Service, U. S. Treasury Department, Washington 25, D. C., 1963. Aid to taxpayers in filing 1962 returns and new recordkeeping rules for 1963 are presented. Expenses for business travel, for entertaining customers, clients, and other business contacts, and for business gifts are deductible under certain circumstances. During 1962 Congress enacted new rules for these expenditures which are effective after December 31, 1962. The leaflet is divided into two main parts. The first part explains the rules in effect for such expenditures before January 1, 1963, which should be followed in filing income tax returns for 1962. The second part explains the new rules for such expenditures after December 31, 1962, with the emphasis on the stricter requirements for current recordkeeping and substantiation.

FISH BEHAVIOR:

"Alarm Reaction of the Top Smelt, *Atherinops affinis* (Ayres)," by W. A. Skinner, R. D. Mathews, and R. M. Parkhurst, article, *Science*, vol. 138, no. 3541, November 9, 1962, pp. 681-682, printed, single copy 35 cents, *Science*, 1515 Massachusetts Ave. NW., Washington 5, D. C. The "alarm" substance of the smelt has been isolated by extraction with methanol or ether from suffocated smelt. These concentrated extracts, when introduced into an aquarium containing smelt, induce a strong alarm reaction in the fish, characterized by rapid swimming, jumping, and often severe seizures. The fact that extracts from some other species caused only mild excitation in the smelt indicates the species-specificity of the alarm reaction.

**Sekret Ryb'ikh Stai* (The Secret of Fish Schools), by E. P. Fedorovskii, R 24468, printed in Russian, 1960.

FISHERY MANAGEMENT:

**Forelevoe Rybovodnoe Khoziaistvo* (Management of Trout Fishery), by K. A. Sadlaev, R 24637, printed in Russian, 1962.

FISH FLAVOR:

"A Study of the Influence of Selected Preparation Procedures on Flavor and Aroma of Fish," by Ruth E. Baldwin, Dorothy Hussemann Strong, and James H. Torrie, article, *Food Technology*, vol. 16, July 1962, pp. 115-118, printed. The Garrard Press, 510 N. Hickory, Champaign, Ill.

FISH HYDROLYSATES:

"Fish Hydrolysates, Pastes, and Sauces," by N. L. Lahiry and D. P. Sen (Central Food Technological Research Institute, Mysore, India), article, *Chemical Abstracts*, vol. 56, March 19, 1962, 6429i, printed. The American Chemical Society, 1155 16th St. NW., Washington 6, D. C.

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GABON REPUBLIC:

Investment Law in the Republic of Gabon, by A. A. Wilken, Jr., OBR-62-20, 12 pp., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., December 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Discusses the investment code of the Republic of Gabon, and background and related information of use to possible United States investors.)

GEAR:

"The 'S' Shaped Fishpots of Jamaica," article, World Fishing, vol. 11, no. 12, December 1962, pp. 39-40, 43, illus., printed, single copy 3s. (about 42 U. S. cents). World Fishing, John Trundell & Partners Ltd., St. Richard's House, Eversholt St., London NW1, England. Fishpots are used extensively throughout the Caribbean where bottom conditions are generally too rough for trawling and the abundance of sharks limits the use of other bottom fishing methods. The two-funnel "S" pot used in Jamaica is traditional and is the most widely used fishing method on the island. This article discusses the operation and method of construction of the fishpot.

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The Fishes, by Url Lanham, printed, C\$5. The Copp Clark Publishing Company, Ltd., 517 Wellington St., W., Toronto, Canada, 1962. An easily understood

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account of fish--their origin, the major groups into which they fall, and the structure of the species in these few groups. The evolutionary background needed to understand the structure of modern fish is discussed, after which the actual structure is described in chapters on such subjects as swimming, reproduction, and sense perception.

GERMAN FEDERAL REPUBLIC:

Customs Valuation under the Revised German Customs Law, Effective January 1962, OBR-62-22, 4 pp., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., January 1963. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) A report on the new customs valuation procedure of the German Federal Republic. The new procedure, also applicable to West Berlin, was established in the Customs Valuation Code--Wertzollordnung--of November 29, 1961. It took effect simultaneously with the enabling law on January 1, 1962. The report covers the principal provisions in the ordinance: normal price, invoice price, valuation of goods in special cases, and final provisions.

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Variation in Hemoglobin and Electrophoretic Whole Blood Studies in Two Tunas and Three Other Fish Species, by Albert C. Smith, article, California Fish and Game, vol. 49, no. 1, January 1963, pp. 44-49, illus., printed, single copy 75 cents. California Fish and Game, Printing Division, Documents Section, Sacramento 14, Calif.

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Vitamin A and Fat in the Herring (CLUPEA HARENGUS L.) and in Its Food, by L. R. Fisher and Zena D. Hosking, Marine Research No. 4, 35 pp., illus., printed, 11s. (US\$2.20--includes mailing costs). Sales Section, British Information Services, 845 Third Ave., New York 22, N. Y., 1962.

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Report Tariff System of Honduras, by Frederick J. Tower, OBR-62-3, 2 pp., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., November 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Covers units of currency, weights, and measures; bases of specific and ad valorem duties; methods of payment of duty; and preferential duties accorded other Central American nations. Also discusses customs surtaxes, sales and other internal taxes, consular documents and fees, trade restrictions, and special regulations.

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Juridical Regime of Historic Waters, including Historic Bays (Study prepared by the Secretariat),

A/CN.4/143., 74 pp., processed. Secretariat, United Nations, New York, N. Y., March 8, 1962.

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Quarterly Report Iowa Cooperative Wildlife and Fisheries Research Units, vol. 28, no. 2, October, November, December 1962, 49 pp., illus., processed, distribution restricted. Iowa State University of Science and Technology, Ames, Iowa. Includes, among others, articles on: "Parasites and Diseases of Fish and Wildlife;" "Factors Affecting Fish Production;" "Stream Biology as Related to Fish Production--Des Moines River;" "Effect of Some Physiological and Physical Factors on Blood Lactic Acid Concentration of Channel Catfish;" and "Dynamics of Fish Populations in Natural Lakes--Clear Lake."

IRISH MOSS:

"They Rake Money from the Sea!" article, Fish Boat, vol. 7, April 1962, pp. 26-27, printed. H. L. Peace Publications, 624 Gravier St., New Orleans 9, La.

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Investment Law in the Islamic Republic of Mauritania, OBR-62-25, 4 pp., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., December 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Discusses the investment code of the Islamic Republic of Mauritania, and background and related information of use to possible United States investors.

JAPAN:

Bulletin of the Hokkaido Regional Fisheries Research Laboratory, no. 25, November 1962, 66 pp., illus., printed in Japanese with English abstracts. Hokkaido Regional Fisheries Research Laboratory, Yoichi, Hokkaido, Japan. Includes the following articles: "Studies on the Early Life History of Herring, *Clupea pallasii*. 2--On the Growth and Survival of Larvae in Akkeshi Bay, Hokkaido," by A. Iizuka and others; "On the Locomotion of the Squids, *Ommastrephes sloani pacificus* (Steenstrup), in the Okhotsk Sea along the Coast of Hokkaido during the Autumn of 1961," by H. Araya and S. Kawasaki; "On the Gill-Net Mesh Selectivity Curve," by T. Ishida; "A Study on a Process for Abating Harm Inflicted by Sulphite Pulp Waste upon Aquatic Products," by H. Igarashi and A. Iida; and "Report on Dissolved Nutrients Investigations in the North Pacific and the Bering Sea During June-August 1960," by K. Miwa.

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Statistic Tables of Fishing Vessels (as of the End of 1961), General Report No. 14, 208 pp., illus., printed in Japanese and English. Japanese Fisheries Agency, Tokyo, Japan. An annual report containing statistical data in detail on the various types of Japanese fishing craft, both powered and nonpowered, as obtained by a fishery registration system. The trend toward motorization of nonpowered craft is noted in this report.

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Investment in Nicaragua, by Richard P. Rice, OBR-62-14, 12 pp., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., December 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Discusses Nicaragua's economic growth, the Government's effort to create conditions favorable to private investment, investment and management, incentive legislation, and taxation. A section on the fisheries outlines a new basic law, promulgated under a decree effective March 6, 1961, designed to regulate the fishing industry. Also covers requirements for fishing licenses and taxation on fishery enterprises.

NYASALAND:

Annual Report of the Department of Game, Fish and Tsetse Control for the Year Ended 31st December 1961, 28 pp., printed, 4s. (about 56 U. S. cents), Government Printer, Zomba, Nyasaland, 1962. The section on fisheries discusses the state of the fish stocks, large-scale licensed fishing enterprises, small-scale unlicensed enterprises, trade in fishery products, and developmental work. Also covers fishery training and public relations, gear and technological research, work of the Joint Fishery Research Organization, trout fishing, fish farming, and other projects. Also includes tables showing landings by gear, by fish genus, and by time of day, in the fresh-water fishery.

OCEANOGRAPHY:

Horizontal Diffusion from an Instantaneous Point-Source Due to Oceanic Turbulence, by Akiro Okubo, Technical Report 32, 125 pp., illus., processed, Chesapeake Bay Institute, The Johns Hopkins University, Baltimore 18, Md., December 1962.

A Review of Theoretical Models of Turbulent Diffusion in the Sea, by Akiro Okubo, Technical Report 30, 112 pp., illus., processed, Chesapeake Bay Institute, The Johns Hopkins University, Baltimore 18, Md., September 1962.

Seas, Maps, and Men (An Atlas-History of Man's Exploration of the Oceans), edited by G. E. R. Deacon, 297 pp., illus., printed, \$9.95 Doubleday & Company, Inc., Garden City, N. Y., 1962. A beautifully-illustrated book, in both color and black-and-white, featuring relief maps, photographs, and reproductions of paintings, drawings, and other art forms. The introduction discusses the earth and its oceans, giving basic geological and geographical information. Then follows a chapter on men against the sea, and the lives of some of the world's great explorers, from Pytheas to the men of the Nautilus. The next section--life in the sea--covers creatures of the sea, the discovery of plankton, the movement of fishes, the great chain of life, and marine biology as a science. Other chapters present some fascinating information on sunken cities and forgotten wrecks, and facts about the sea. In the preface, the authors point out: "Man's exploration of the oceans began long before recorded history. Curiosity must have been one of the motives but the main inducements were the search for food and wealth. During the fifteenth and sixteenth centuries the search for trade routes to the East and the discovery of new lands were the main driving forces. Soon after James Cook's famous voyages in the late eighteenth century most of the great geographical puzzles of the oceans had been solved. In the following century oceanography was to receive its greatest stimulus from science, which sponsored expeditions like the three-year voyage around the world of the research ship H.M.S. Challenger. Today the scientific exploration of the oceans is being carried out by many nations. Like the earlier explorers, the scientist-explorers of the twentieth century continue to search the sea for food, but in addition they are looking for ways to tap the vast mineral wealth and to harness the energy locked up in the oceans; but perhaps more important are the basic studies that are refining our knowledge of the great chain of life in the seas, the currents, the action of waves and tides, and geological and geophysical aspects of the sea floor." This is an excellent textbook for schools, probably at the high school level, and would certainly be a worthwhile addition to any home library.

Underwater Acoustics, edited by V. M. Albers, 354 pp., illus., printed, \$12.50. Plenum Press, 227 W. 17th St., New York 11, N. Y., 1963.

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Surface Temperature and Salinity Observations at Shore Stations on the Oregon Coast for 1961, by Malcolm Oliphant, Bruce Wyatt, and Norman F. Kujala, Data Report No. 8, 20 pp., illus., processed, Department of Oceanography, School of Science, Oregon State University, Corvallis, Oreg., September 1962.

OYSTERS:

"Chromate Color Test for Estimating Age-Temperature History of Raw Shucked Oysters," by M. L. Schafer, J. E. Campbell, and K. H. Lewis (U. S. Department of Health, Education, and Welfare, Cincinnati, Ohio), article, Journal of Agriculture and Food Chemistry, vol. 10, May-June 1962, pp. 261-267, printed, The American Chemical Society, 1155 16th St. NW., Washington 6, D. C.

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Effect of Pesticides on Oysters," by Philip A. Butler, Alfred J. Wilson, and Alan J. Rick (U. S. Bureau of Commercial Fisheries, Gulf Breeze, Fla.), article, Chemical Abstracts, vol. 57, August 20, 1962, 5140a, printed. The American Chemical Society, 1155 16th St. NW., Washington 6, D. C.

PACIFIC OCEAN:

The Distribution of Pacific Euphausiids, by Edward Brinton, 219 pp., illus., printed, \$5. University of California Press, Berkeley 4, Calif., 1963.

AUSTRALIA:

Australian Pearling Industry Statistical Handbook, 49 pp., illus., processed. Fisheries Division, Department of Primary Industry, Canberra, Australia, August 1962. Recent trends of the Australian pearling industry are shown by the statistics presented in this handbook. Contains data on quantity and value of pearl and trochus shell production, Japanese pearling operations in Australian waters, and exports of marine shells. Most data are for 1961, with some information for the period 1901-1961.

PENNSYLVANIA:

Engineering and Biological Study of Proposed Fish-Passage at Dams on Susquehanna River, Pennsylvania, by Milo C. Bell and Harlan B. Holmes, 137 pp., plus 49 figs. and 64 plates, processed. Pennsylvania Fish Commission, Harrisburg, Pa., December 1962. Reports on an engineering and biological study of the problems of fish passage at Conowingo and Safe Harbor Dams on the Susquehanna River.

PHILIPPINES:

Licensing and Exchange Controls in the Philippines, by Kenneth A. Guenther, OBR-62-2, 8 pp., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., November 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Controls on imports into the Philippines that had been in effect since 1949 were lifted by Presidential proclamation of January 21, 1962. All import transactions now take place at the freely fluctuating exchange rate. This report covers Philippine import and export controls, United States import and export controls, and other related information.

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Studies on the Soy and Fish Solubles Growth Factors for Chicks," by W. W. Westerfeld and A. C. Hermans, article, Journal of Nutrition, vol. 76, April 1962, pp. 503-511, printed. American Institute of Nutrition, 36th St. at Spruce, Philadelphia 4, Pa.

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"Studies on the External Mucous Substance of Fishes. IV--Amino Acid Composition of the Protein of the External Mucous Substance from Some Fishes," by Noriyuki Enomoto, Tokio Izumi, and Yukio Tomiyasu, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 27, June 1961, pp. 606-608, printed. Japanese Society of Scientific Fisheries, 6-chome, Shiba-Kaigandori, Minato-ku, Tokyo, Japan.

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"Radiation-Pasteurized Shrimp and Crabmeat," by Dorothy J. Scholz and others, article, Food Technology, vol. 16, July 1962, pp. 118-120, printed. The Garrard Press, 510 N. Hickory, Champaign, Ill.

RADIOACTIVE CONTAMINANTS:

A Study of the Movement and Diffusion of an Introduced Contaminant in New York Harbor Waters, by D. W. Pritchard, Akiro Okubo, and Emanuel Mehr, Technical Report 31, 95 pp., illus., processed. Chesapeake Bay Institute, The Johns Hopkins University, Baltimore 18, Md., October 1962.

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"Diet, Glycogen Reserves and Resistance to Fatigue in Hatchery Rainbow Trout. Part II," by Richard B. Miller and Frances Miller, article, Journal of the Fisheries Research Board of Canada, vol. 19, May 1962, pp. 365-375, printed. Queen's Printer and Controller of Stationery, Ottawa, Canada.

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The Effect of Storage in Refrigerated Sea Water on the Amino Acids and Other Components of Fish (Paper presented at FAO International Conference on Fish in Nutrition, Washington, D. C., September 19-27, 1961), by E.H. Cohen and J.A. Peters, processed. Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, 1961.

RHODESIA AND NYASALAND:

Basic Data on the Economy of The Federation of Rhodesia and Nyasaland, by John F. Handford and Clifford R. Nelson, OBR-62-44, 12 pp., printed, 15 cents. Bureau of International Commerce, U.S. Department of Commerce, Washington, D. C., (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) A section on fishing covers fishery products landings from Lakes Kariba, Mweru, and Nyasa; and assistance to the industry given by the United Nations Special Fund. Discusses geography and climate, population, form of government, structure of the economy, and finance. Also discusses economic development, agriculture, external trade, industry, and other related information.

Import Tariff System of the Federation of Rhodesia and Nyasaland, OBR-62-26, 2 pp., printed, 15 cents. Bureau of International Commerce, U.S. Department of Commerce, Washington, D. C., December 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Covers currency, weights, and measures; specific and ad valorem duties; and preferential treatment of duties--federal tariff and dumping duties. Also covers method of payment of duty, customs surtaxes and internal taxes, shipping documents and fees, and trade restrictions.

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"Composition of Sperm Nuclei in Baltic Salmon," by I. B. Zbarskii and L. P. Ermolaeva (A. N. Severtsov Inst. Animal Morphol., Moscow, U.S.S.R.), article, Chemical Abstracts, vol. 56, January 8, 1962, 793b, printed. The American Chemical Society, 1155 16th St. NW., Washington 6, D. C.

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Preparing Shipments to Saudi Arabia, by Roger D. Severance, OBR-62-28, 8 pp., printed, 15 cents. Bureau of International Commerce, U.S. Department of Commerce, Washington, D. C., December 1962. (For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D. C.) A report on the preparation of shipments for export to Saudi Arabia. It covers the preparation of shipping documents, information on labeling and marking, customs procedures, and related subjects.

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"Storage of Dried Laver at Low Temperature," by Yasuhiko Tsuchiya, Yoshio Suzuki, and Takashi Sasaki, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 27, October 1961, pp. 919-933, printed. Japanese Society of Scientific Fisheries, 6-chome, Shiba-Kaigandori, Minato-ku, Tokyo, Japan.

SENEGAL REPUBLIC:

Investment Law of the Republic of Senegal, OBR-62-38, 8 pp., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., December 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Discusses the investment code of the Republic of Senegal, and background and related information of use to possible United States investors.

SHAD:

"Chemical Composition of West African Fish. I--West African Shad from the Sierra Leone River Estuary," by J. C. D. Watts (West African Fisheries Research Institute, Freetown, Sierra Leone), article, Chemical Abstracts, vol. 56, April 30, 1962, 10717b, printed. The American Chemical Society, 1155 16th St. NW., Washington 6, D. C.

SHARK LIVER OIL:

"A New Method for Refining of Shark Liver Oil on Commercial Scale and Recovery of Vitamin A by Partial Saponification," by S. A. Ali and L. Rahman, article, Chemical Abstracts, vol. 55, December 11, 1961, 26363f, printed. The American Chemical Society, 1155 16th St. NW., Washington 6, D. C.

SHARKS:

"Partitioning of Body Fluids in the Lake Nicaragua Shark and Three Marine Sharks," by Thomas B. Thorson, article, Science, vol. 138, no. 3541, November 9, 1962, pp. 688-690, printed, single copy 35 cents. Science, 1515 Massachusetts Ave., NW., Washington 5, D. C.

SHRIMP:

"Deteriorative Changes in Frozen Shrimp and Their Inhibition," by M. B. F. Chastain, article, Journal of the Science of Food and Agriculture, vol. 12, 1961, p. ii 239, printed. The Society of Chemical Industry, 14 Belgrave Sq., London SW1, England.

"Qualitative Distribution of Free Amino Acids in Different Species of Prawns," by N. K. Velankar and K. Mahadeva Iyer, article, Chemical Abstracts, vol. 56, January 8, 1962, 789b, printed. The American Chemical Society, 1155 16th St. NW., Washington 6, D. C.

"Rock Salt Makes Brine for Shrimp Canning," by Ray M. Thompson, article, Canner Packer, vol. 131, August 1962, pp. 32-33, printed. Triad Publishing Co., 59 E. Monroe St., Chicago 3, Ill.

SMALL BUSINESS MANAGEMENT:

Financing Export Sales, by Clarence J. Ruethling, Management Aids for Small Manufacturers No. 149, 4 pp., processed. Small Business Administration,

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

Washington 25, D. C., February 1963. A report describing steps to be taken by businessmen in financing export sales. Discusses five specific types of information needed by the seller in such transactions: (1) financial responsibility and moral reputation of his overseas buyer; (2) availability of dollars in the country of purchase; (3) documentation and protection required to effect shipment; (4) various means of getting and guaranteeing payment, and (5) financial help which is available to exporters.

Small Manufacturers and the Financial Gap, by James Mahar and Dean C. Coddington, Management Research Summary, 2 pp., processed. Small Business Administration, Washington 25, D. C., 1963. A summary of a report on the fund-raising ability of small firms during formation and early growth. Often long-term funds are not available when their need is most critical. Part of this "financial gap" is due to lack of knowledge about sources of funds. Better understanding of the criteria used by various financial institutions could save time both for owners and managers of small firms and for the institutions.

Due Dates for Small Marketers, Small Marketers Aid No. 87, printed. Small Business Administration, Washington 25, D. C. Prepared mainly for small businessmen who have to fill out their own tax forms. Lists the kinds of Federal taxes and their due dates. Points out that a review of the tax calendar can be helpful in financial planning. The Internal Revenue Service requires that statements from businessmen on various tax forms be supported by permanent records. This leaflet suggests: "Why not, if you aren't already doing it, coordinate your recordkeeping with the various tax dates? For example, if your business year ends at a date which means extra work in gathering tax information, you may want to reamp your system so that your regular records will give you the proper tax information."

Due Dates for Small Plants, Management Aid for Small Manufacturers No. 148, 8 pp., processed. Small Business Administration, Washington 25, D. C., January 1963. A leaflet giving dates important to small businessmen in the payment of Federal taxes. Contains a 1963 tax calendar, information for fiscal year taxpayers, and a list of general and special tax forms. Also includes a calendar for state and local taxes to be filled in by the individual. Stresses that the Internal Revenue Service requires that all of the taxpayer's statements on tax forms be supported by permanent records.

Wholesalers' Services to Food Retailers, by Russell Childress and R. Dean Shippy, Management Research Summary, 2 pp., processed. Small Business Administration, Washington 25, D. C., 1963. A summary of a report on food retailers' evaluation of wholesalers' services. In the study conducted in connection with the report, it was found that retailers' ideas varied about what their wholesalers could do to improve their services. However, the following were among those expressed most often: (1) expansion of the produce-procurement services; (2) more help from the meat and produce specialists; (3) better store-planning programs; and (4) supplying a management-training program.

SMOKING:

The Preservation of Fish by Smoke-Curing in the Torry Kiln, by J.C.D. Watts, Fisheries Department Technical Paper No. 2, 8 pp., printed, 1s. (about 14 U. S. cents). Government Bookshop, Water St., Freetown, Sierra Leone, 1962.

SPERM OIL:

"Sperm Whale Oil," by Pablo Kovacs (Derma S.R.L., Buenos Aires, Argentina), article, Chemical Abstracts, vol. 56, January 22, 1962, 1544d, printed. The American Chemical Society, 1155 16th St. NW., Washington 6, D. C.

"Utilization of Sperm Oil. IV--Fatty Alcohol Compositions of Glyceride Fraction and Wax Fraction Separated from Sperm Oil by the Urea-Adduct Method," by Shoichiro Watanabe and Yoshiro Abe (Keio Kijuku Univ., Tokyo, Japan), article, Chemical Abstracts, vol. 55, March 20, 1961, 5995a, printed. The American Chemical Society, 1155 16th St. NW., Washington 6, D. C.

STERN TRAWLERS:

"Stern Trawling Systems--A World Fishing Survey;" "British Trawl Winch Design in 1962," by H. S. Noel; "Operating Experience of Second Dutch Stern Trawler," articles, World Fishing, vol. 12, no. 1, January 1963, pp. 50-57, illus., printed, single copy 3s. (about 42 U. S. cents). World Fishing, John Trundell & Partners Ltd., St. Richard's House, Eversholt St., London NW1, England. Compares the designs of various stern trawlers and outlines their operations. Among the many advantages of this type of vessel are improved working conditions for the crew and less damage to the catch.

STORAGE OF FISH IN SEA WATER:

"Cooling and Keeping of Fish and Small Shrimps in Sea Water," by L. Van Pel, article, De Visserijwereld, vol. 20, 1961, pp. 27-29, printed in Dutch. N. V. Drukkerij Trio, 27 Nobelstraat, The Hague, Netherlands.

TAIWAN:

Common Food Fishes of Taiwan, by Yun-sheng Liang, Po-wei Yuan, and Hung-chia Yang, 96 pp., illus., printed. Chinese-American Commission on Rural Reconstruction, Taipei, Taiwan, China, December 1962. Gives names of food fish of Taiwan in Chinese and English, their scientific names, a brief description of each species, information as to where and when they are available, and their market price. Describes, with illustrations, 51 species of fish and 14 species of other aquatic animals.

THAILAND:

Investment Factors in Thailand, 1962, by William H. Riley, WTIS Part 1, Economic Report No. 62-82, 16 pp., illus., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., November 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) A handbook of valuable information for the prospective investor in Thailand. At the close of 1961, United States private investment, the largest share of total foreign investment in Thailand, was estimated at \$27 million. This report covers present U. S. private investment, Gov-

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ernment policy, entry of U. S. private capital, and controls on capital. It also discusses investment negotiation, taxation of foreign investment, manufacturing, and business data. Included are several photos and maps.

THAWING:

"Dielectric Thawing of Fish. I--Experiments with Frozen Herrings," by A. C. Jason and H. R. Sanders, article, Food Technology, vol. 16, June 1962, pp. 101-106, printed. The Garrard Press, 510 N. Hickory, Champaign, Ill.

TRADE LISTS:

The Bureau of International Business Operations, U. S. Department of Commerce, has published the following mimeographed trade lists. Copies may be obtained by firms in the United States from the Commercial Intelligence Division, Office of Trade Promotion, Bureau of Foreign Commerce, U. S. Department of Commerce, Washington 25, D. C., or from Department of Commerce field offices at \$1 each.

Canneries and Frozen Foods--Producers and Exporters--Spain, 48 pp. (October 1962). Lists the names and addresses, size of firms, and types of products handled by each firm. Includes producers and exporters of canned and frozen fish and shellfish. Also contains trade and industry data (including fishery products).

Oils (Animal, Fish and Vegetable)--Importers, Producers, Refiners and Exporters--Republic of South Africa, 25 pp., November 1962. Lists the names and addresses, size of firms, and types of products handled by each firm. Includes firms dealing in fish and whale oils, and shark liver oil.

TROUT:

"Trout Show Susceptibility to Cancer-Producing Agents," article, New Scientist, vol. 15, no. 306, September 27, 1962, p. 662, printed. New Scientist, Cromwell House, Fulwood Pl., High Holborn, London WC1, England.

TUNA:

"The Schooling Behavior of Pacific Yellowfin and Skipjack Tuna Held in a Bait Well," by James Joseph and Izadore Barrett, article, California Fish and Game, vol. 49, no. 1, January 1963, p. 55, printed, single copy 75 cents. California Fish and Game, Printing Division, Documents Division, Sacramento 14, Calif.

UGANDA:

Uganda, Report for the Year 1961, 73 pp., illus., printed. Information Department, Government of Uganda, Entebbe, Uganda, 1962. Includes a small section on the fisheries of Lakes Albert and Victoria, and the Nile River.

U.S.S.R.:

*Biologiya Ozera Baikal (Biology of the Lake Baikal), by M. M. Kozhov, R 24470, printed in Russian, 1962.

*Rybi Basseina R. Usy i Ikh Kormovye Resursy (Fish of the Usa River Basin and Their Food Resources), R 24537, printed in Russian. Akademiia Nauk SSSR, Komi Filial, 1962.

Rybnoe Khoziaistvo, vol. 38, no. 6, June 1962, 88 pp., printed in Russian. Rybnoe Khoziaistvo, VNIRO Glavniproekta, pri Gosplanie SSSR, Moscow, U.S.S.R. Includes, among others, these articles: "Complex Mechanization and Automation is the Principal Step Towards the Development of the Fishing Industry," "Yearly Plan Accomplished in Four Months," "Resources of the World Oceanic Fishery," by G. V. Martinsen; "South-Atlantic Sardine," by S. M. Overko; "The Problem of Young Pink Salmon and Dolly Varden Char (*Salvelinus malma*) Migrating Downstream in the Rivers of Sakhalin," by M. Ia. Kazarnovskii; "Perfecting Maiakovskii Class Trawler Design during Construction," by V. M. Ivanov; "Industrial Equipment Needs of Stern Trawlers," by G. A. Traubenberg and others; "The Trawling Speed," by I. R. Matrosov; "The Work of Fishermen Assigned to Trawler *Kureika*," by O. Krotova and V. Chaikin; "Exploratory Activities in the Area of Newfoundland," by B. E. Karasev; "Mechanized Lines in the Pre-processing of Salted Herring," by L. Rozin; "The Production of Special Canned and Salted Herring on Refrigerator Ships of the RR Class," by L. G. Visk; "New Saury-Cutting Machine," by V. E. Sakharov; "Fish Processing, a Profitable Branch in Kolkhoz Economics," by N. N. Kravtsov; "New Soviet-Japanese Agreement," "Flying Fishes," "Conference of Personnel Working for the Fishing Industry in the Azov-Black Sea Area," "Conference of Personnel Working for the Fishing Industry in the Caspian Sea Region," and "Seminar on Pond Fishery."

--Titles translated by Milan A. Kravanja

Rybnoe Khoziaistvo, vol. 38, no. 7, July 1962, 91 pp., printed in Russian. Rybnoe Khoziaistvo, VNIRO Glavniproekta, pri Gosplanie SSSR, Moscow, U.S.S.R. Includes, among others, these articles: "Measures for Increasing the Catch of Fish and Output of Fishery Products," "Fishery Resources of the Seas and Oceans Must be Better Exploited!," "Fluctuations of Atlantic and Scandinavian Herring Populations," by S. S. Federov; "Commercial Fishery for Baltic Herring in the Gulf of Finland," by A. F. Bondarenko; "New Commercial Fishery Resources," "Basic Problems in Construction of Automated Trawler," by G. B. Terent'ev and L. A. Ganf; "New Methods of Trawling for Far Eastern Ocean Perch," by A. V. Lestev; "A Review of the Work of Large Refrigerator Trawler (BMRT) *Saltykov-Shchedrin*," by B. Chervov; "How to Insure the Safety of Vessels during Fishing Operations," by A. M. Koniaev; "The Refrigeration Mechanic's Shipboard Laboratory," by B. V. Golubev; "Fish-Breeding Machine," by V. T. Sakharov; "Cooling for Fried Fish and other Food Products," by M. Fikh; "Changes in Weight of Salmon during Salting," by E. A. Nasedkina; "Vitamin Content in Fish and Whale Flour," by V. I. Treshcheva; "The Work of the Bulgarian Trout Farm 'Samokov'," by N. E. Sal'nikov and "New Era in the Development of Soviet-Norwegian Fishery Relations," by A. A. Volkov.

--Titles translated by Milan A. Kravanja

*Sovetskie Rybokhoziaistvennye Issledovaniia v Severo Zapadnoi Chasti Atlanticheskogo Okeana (Soviet Fishery Research in the Northwestern Atlantic), R 25409, printed in Russian. Poliarnii Nauchno-Issledovatel'skii Institut Morskogo Khoziaistva i Okeanografii (PINRO), 1962.

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

WEST AFRICA:

Report Tariff System of the Entente States (Ivory Coast, Dahomey, Niger, and Upper Volta), OBR-62-11, 4 pp., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., December 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) In 1959, as autonomous members of the French Community, the four territories established a political association known as the Council of the Entente. Since gaining political independence in 1960 the member states have maintained generally coordinated economic and social policies, and have associated with Senegal, Mali, and Mauritania to form the West African Customs Union. This report covers units of currency, weights, and measures; bases of specific and ad valorem duties; methods of payment of duty; and basic and preferential duties. Also discusses the customs surtaxes of member countries, their sales and other internal taxes, shipping documents and fees, trade restrictions, and other special regulations.

WHALING:

International Quota Agreements," article, Norsk Hvalfangst-Tidende, vol. 51, no. 12, December 1962, pp. 461-466, printed in Norwegian and English. Hvalfangerforeningen, Sandefjord, Norway. Summarizes the background and details of a new whaling agreement acceded to by Japan, Netherlands, U.S.S.R., Norway, and the United Kingdom. The agreement was signed at London, June 6, 1962, but must be ratified by all member governments before becoming fully effective. Provides for the distribution, among themselves by percentages, of the total annual catch of Antarctic whales by the signatory nations.

International Whaling Commission (Chairman's Report of the Fourteenth Meeting)," by C. R. Clark, article, Norsk Hvalfangst-Tidende, vol. 51, no. 12, December 1962, pp. 466-473, printed. Hvalfangerforeningen, Sandefjord, Norway. Comprises the Chairman's Report from the 14th Meeting of the In-

ternational Whaling Commission, held at London, July 2-6, 1962. Reports on condition of the stocks, Antarctic catch limitation, blue whale unit catch limit, opening of the baleen whaling season, blue whale and humpback whale protection, minimum length for sperm whales, North Pacific whale stocks, and related topics.

International Whaling Statistics, no. XLIX, 80 pp., printed, Kr. 2.00 (about 28 U.S. cents). The Committee for Whaling Statistics, Oslo, Norway, 1963. A report on the results of the whaling operations in the Antarctic during the season 1960/1961 and on grounds outside the Antarctic in the calendar year 1961. Includes statistical tables on whaling in the Antarctic; whaling operations of Norway, the United Kingdom, Japan, and the U.S.S.R.; whaling results for various other countries; average size of whales caught; and whales caught by species, sex, and size. Also includes data on average production of oil per "blue-whale equivalent;" and average production of oil per sperm-whale.

"Whaling Operations in the Antarctic in the Season 1961/62," article, Norsk Hvalfangst-Tidende (Norwegian Whaling Gazette), vol. 51, no. 9, September 1962, pp. 347-364, 367-368, 370-373, printed in Norwegian and English. Norsk Hvalfangst-Tidende, Hvalfangerforeningen, Sandefjord, Norway. A survey of the whaling operations in the Antarctic in the season 1961/62 prepared for and submitted at the meeting of the International Whaling Commission in London in June 1962. Covers the most important regulations of the Convention for that season, factoryships and catching boats operated by the countries subscribing to the Convention, and duration of the whaling season. Also discusses the catch by species in the various areas, the catch results in relation to the vessels engaged in whaling and catching time spent, oil production per blue-whale unit, average size of the whales landed, sexually mature and immature whales, and ratio of blue and fin whales in the catch. Includes a number of statistical tables on those topics.



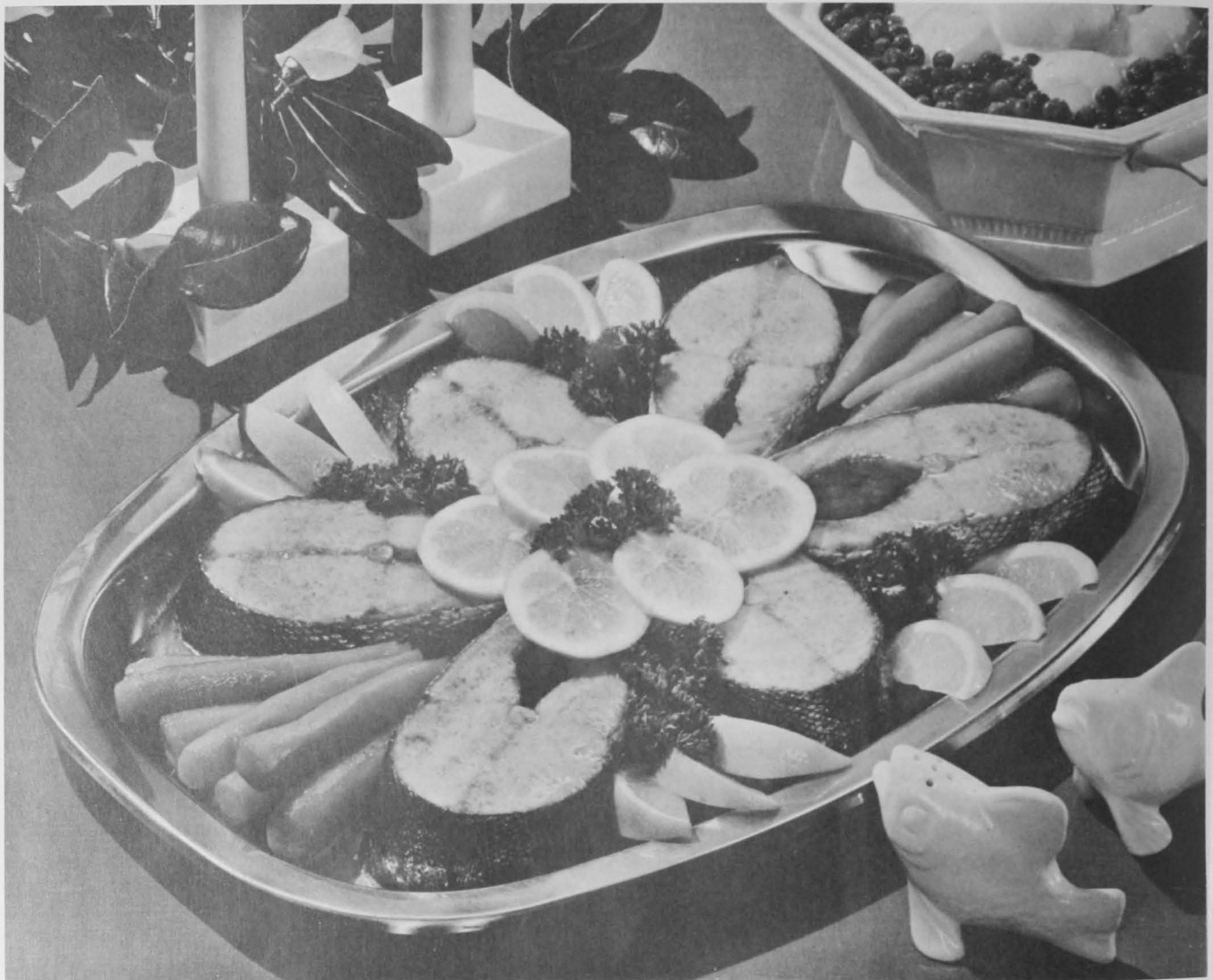
2 tablespoons anchovy paste
1 tablespoon chopped parsley
Dash pepper
Paprika

2 pounds salmon steaks or other fish steaks
leeks or onions
1/2 cup melted fat or oil
2 tablespoons lemon juice

SYNTHETIC DIET FAILS ON CATFISH

In 1962, trials at the Southeastern Fish Cultural Laboratory, U. S. Bureau of Sport Fisheries and Wildlife, control groups of channel catfish fed the synthetic ration successfully used in nutritional-requirement experiments on trout and salmon failed to grow. It is postulated that either channel catfish cannot use one or more of the 18 crystalline amino acids composing the protein complement of the diet or this species may require some nutritional element additional to those needed by salmonoids. (Good growth was previously exhibited by channel catfish on a diet in which casein was the protein source.) The addition of hydroxyproline to the salmonid test diet will be tried to see if this amino acid is essential for channel catfish growth.

REVELER'S SALMON DELIGHT



2 pounds salmon steaks or other fish steaks,
fresh or frozen
 $\frac{1}{4}$ cup melted fat or oil
2 tablespoons lemon juice

2 tablespoons anchovy paste
1 tablespoon chopped parsley
Dash pepper
Paprika

Thaw frozen steaks. Cut into serving-size portions. Combine remaining ingredients except paprika; mix thoroughly. Place fish on a well-greased broiler pan. Brush with sauce. Broil about 3 inches from source of heat for 5 minutes. Turn carefully and brush other side with sauce. Broil 4 to 5 minutes longer, basting once, until fish is lightly browned and flakes easily when tested with a fork. Sprinkle with paprika. Serves 6.

--From Fisheries Marketing Bulletin: "Let the Sparkle of Mardi Gras--
Linger on Your Table Throughout the Lenten Season."
Issued by the National Marketing Services Office,
U. S. Bureau of Commercial Fisheries, Chicago 5, Ill.