



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 AND ALASKA.
 SSR.- FISH.-SPECIAL SCIENTIFIC REPORTS--FISHERIES (LIMITED DISTRIBUTION).
 SSR.- WILDLIFE-SPECIAL SCIENTIFIC REPORTS--WILDLIFE (LIMITED DISTRIBUTION).
 SEP.- SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.

Number	Title
CFS-1495	- Florida Landings, December 1956, 6 pp.
CFS-1496	- California Landings, October 1956, 4 pp.
CFS-1500	- North Carolina Landings, January 1957, 2 pp.
CFS-1502	- Frozen Fish Report, February 1957, 8 pp.
CFS-1504	- New Jersey Landings, January 1957, 4 pp.
CFS-1507	- Alabama Landings, December 1956, 2 pp.
CFS-1508	- Shrimp Landings, November 1956, 4 pp.
CFS-1509	- Rhode Island Landings, January 1957, 3 pp.
CFS-1511	- Maine Landings, January 1957, 3 pp.
CFS-1516	- South Carolina Landings, January 1957, 2 pp.

SSR-Fish. No. 199 - Gulf-II Semiautomatic Plankton Sampler for Inboard Use, by Albert Collier, 15 pp., illus., February 1957.

SSR-Wildlife No. 35 - Summary of Sportsmen's Expenditures, Missouri River Basin, by A. J. Nicholson, 19 pp., March 1957.

Household Consumer Preferences for Canned Fishery Products, 1956, Circular 45, 48 pp., illus. This report deals with a survey of preferences for canned fish and shellfish in United States households. It presents a graphic version of some of the more important findings of the survey. The survey on which it is based was designed to assist the commercial fishing industry in obtaining a better understanding of factors affecting consumption of canned fishery products. Such factors as consumer preferences, buying practices, and methods of distribution were studied. This is the first of two reports resulting from the survey. The second report, Special Scientific Report: Fisheries No. 200, "Canned Fish and Shellfish Preferences of Household Consumers, 1956," provides more detailed data as to the information supplied by the households analyzed nationally

and regionally, as well as by city size, income classes, and by other characteristics.

Annual Report of the Director of Fish and Wildlife Service to the Secretary of the Interior, Fiscal Year Ended June 30, 1956 (Reprinted from the Annual Report of the Secretary of the Interior), 30 pp., printed. Summarizes the various activities of the Service. Specifically discussed are: assistance to the commercial fisheries (describes the activities of the Branch of Commercial Fisheries); conservation of Alaska commercial fisheries; Pribilof Islands fur-seal industry; research in fishery biology (coastal, inland, and marine fisheries); maintenance of the inland fisheries; river basin development and wildlife needs; Federal aid to states for the restoration of fish and wildlife; international cooperation in conservation (international technical cooperation and international conservation agreements); and other activities.

Sep. No. 473 - Iron Sulfide Discoloration of Tuna Cans, No. 6 - Experiments to Elucidate Mechanism of the Reaction.

Sep. No. 474 - An Experimental Air-Pressure Depth-Meter for Use with Midwater Trawls.

Sep. No. 475 - Pacific Coast Fishing Ports.

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

Halibut Market Developments at Chicago, 1954-55 by G. A. Albano, 6 pp., processed. (Available free from the Market News Service, U.S. Fish and Wildlife Service, 565 W. Washington St., Chicago 6, Ill.) Observations on the importance of halibut in the fresh and frozen fishery products trade in Chicago. The author discusses marketing and its significance, International Pacific Halibut Commission and the 1957 North Pacific Halibut Regulations, distribution centers for frozen halibut, Chicago market background as a receiving and distribution center, and receipts and market supplies in relation to the Pacific halibut catch. Tables present data on fresh and frozen halibut receipts at Chicago, 1950-56; fresh and frozen halibut receipts at Chicago compared with total United States and Canadian landings, 1950-56; United States and Canadian Pacific halibut landings, freezings, and month of greatest holdings, 1950-56; and United States and Alaska halibut freezings and holdings by months, 1952-56.

Receipts of Fishery Products at New York City, 1947, by Henry M. Bearse, 14 pp., processed. (Available free from the Market News Service, U.S. Fish and Wildlife Service, 155 John St.

New York 38, N. Y.) Contains an analysis of fishery products receipts for 1947 and marketing trends at New York City. The author discusses in the first part of this report the receipts of fresh and frozen fish and shellfish; receipts by species; vessel landings at New York; receipts by area; fresh-water market receipts; imports into the New York City Customs District; and trends in methods of transportation. The tables, in the second part of this report, present data on receipts of fish and shellfish in the salt-water section of Fulton Market by months and method of transportation, by species and method of transportation, and by states and provinces of origin.

Seattle and Astoria Landings, Receipts, and Value of Fishery Products, 1956, by Charles M.

Reardon, 41 pp., processed, 1957. (Available free from the Market News Service, 421 Bell Street Terminal, Seattle 1, Wash.) The Pacific Northwest fisheries trends and their effect upon Seattle fishery products receipts for 1956 are discussed in the first part of this report. This section covers total receipts of fishery products at Seattle; sources of supply of frozen and fresh fishery products; trends in Seattle receipts of salmon, halibut, tuna, otter-trawl and long-line landings, shellfish, herring meal, and other miscellaneous fishery products and byproducts. The tables present fishery landings and wholesale receipts (including approximate values) at Seattle for 1956 by species, source of origin, and by months; monthly index of receipts of certain fishery products at Seattle; carload shipments of fishery products from Seattle by months; and names, classifications, and approximate standards for fresh and frozen fishery products sold on the Seattle market. The Astoria section includes a discussion of fisheries trends and fishery products receipts at Astoria, Oregon, for 1956. This section covers the Columbia River gill-net fishery, troll and otter-trawl fisheries, and landings and wholesale receipts of fishery products at Astoria during 1956.

California Fishery Products Monthly Summary, February 1957, 10 pp. (Market News Service,

U.S. Fish and Wildlife Service, Post Office Bldg., San Pedro, Calif.) California cannery receipts of raw tuna and tunalike fish, herring, mackerel, anchovies, and squid; pack of canned tuna, herring, mackerel, anchovies, and squid; market fish receipts at San Pedro, Santa Monica, San Diego, and Eureka areas; California imports; canned fish and frozen fish prices; for the month indicated.

Gulf Monthly Landings, Production, and Shipments of Fishery Products, March 1957, 5 pp. (Mar-

ket News Service, U.S. Fish and Wildlife Service, 609-611 Federal Bldg., New Orleans 12, La.) Gulf States shrimp, oyster, finfish, and blue crab landings; crab meat production; LCL express shipments from New Orleans; and wholesale prices of fish and shellfish on the New Orleans French Market; for the month indicated.

Monthly Summary of Fishery Products Production in Selected Areas of Virginia, North Carolina,

and Maryland, March 1957, 4 pp. (Market News Service, U.S. Fish and Wildlife Service, 18 S. King St., Hampton, Va.) Fishery production for the Virginia areas of Hampton Roads, Lower

Northern Neck, and Eastern Shore; the Maryland areas of Crisfield, Ocean City, and Cambridge; and the North Carolina areas of Atlantic, Beaufort, and Morehead City; together with cumulative and comparative data; for the month indicated.

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Fishery Statistics of the United States, 1954, by

A. W. Anderson and E. A. Power, Statistical Digest No. 39, 387 pp., illus., printed, \$1.75, 1956. This is the latest in a series of annual statistical reports on the fisheries of the United States, Alaska, and Hawaii, which contains data on the catch and ex-vessel value of fishery products, employment in the fisheries, quantity of gear operated, the number of fishing craft employed in the capture of fishery products, and certain information on the production and value of manufactured fishery products and byproducts: The statistical surveys conducted during 1955 for 1954 data covered all sections of the United States. The catch of fishery products in all sections of the United States and Alaska during 1954 totaled approximately 4.7 billion pounds valued at \$355.6 million ex-vessel--an increase of 6 percent in quantity and 1 percent in value as compared with 1953. Menhaden landings continued to climb and soared above 1.7 billion pounds to establish a new record. Shrimp was again the most valuable single item taken by domestic fishermen. The catch of these shellfish totaled a record 268 million pounds valued at nearly \$61 million ex-vessel. The average price-per-pound paid to fishermen for shrimp during 1954 amounted to 23 cents as compared with 29 cents in 1953. The shrimp industry in the major producing areas suffered severe problems during the year resulting from an oversupply of shrimp, sharply declining prices, and increased operating and labor costs. Several of the major foodfish recorded noteworthy gains during the year: cod (up 12 million pounds); croaker (up 24 million pounds); haddock (up 15 million pounds); halibut (up 14 million pounds); Pacific mackerel (up 18 million pounds); Atlantic ocean perch (up 28 million pounds); Pacific sardines (up 127 million pounds); salmon (up 12 million pounds); and Pacific tuna (up 20 million pounds). Despite a gain, the 1954 catch of cod was, with the exception of the low 1953 catch, the smallest for any year for which records are available. Ocean perch, which for the past 20 years has supported one of the major segments of the New England fishing industry, rallied noticeably during 1954 with a yield of 181 million pounds. To maintain the landings of ocean perch it has been necessary for the fleet to fish farther and farther to the eastward and in recent years there has been a greater percentage of the catch of ocean perch coming from the Gulf of St. Lawrence and off Newfoundland. The 137-million-pound Pacific sardine catch during the year was heartening to both packers and conservationists alike. The total Pacific Coast catch of salmon amounted to 325 million pounds as compared with 313 million pounds in 1953. The production of chum salmon in Alaska was the largest in many years and there was a spectacular increase in the run of sockeye salmon in Puget Sound waters en route to the

rehabilitated Fraser River. The pack of canned fishery products in the United States, Alaska, Hawaii, Puerto Rico, and American Samoa in 1954 amounted to nearly 863 million pounds valued at \$331 million to the packers. Increased packs of tuna, Maine and Pacific sardines, salmon, and fish packed for pet food were responsible for the gain in pack. The fish stick industry continued to expand during 1954 with a production of 50 million pounds reported for the year. In 1953, the total production amounted to 7.5 million pounds. The 1954 output averaged over 4 million pounds of sticks a month. Toward the end of the year, output was accelerated and in the last quarter, the manufacture of sticks averaged over 5 million pounds a month. The sticks were manufactured from both imported and domestic fish with a majority of the production coming from imported cod. Fishery statistics of the United States and Alaska are compiled and published annually to make available information on both the economic and biological aspects of the domestic commercial fisheries. Data on the economic aspects are necessary to persons engaged in the commercial fishery and to governmental agencies concerned with its regulation and protection. From the biological standpoint these data are important to sound fishery management in providing detailed information on fluctuations in the commercial catch by species, locality, and gear, and type of craft operated. They assist conservation agencies in regulating the commercial fisheries so as to produce maximum yields without depletion.

MISCELLANEOUS PUBLICATIONS

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AFRICA:

A Revision of the Lake Victoria HAPLOCHROMIS Species (Pisces, Cichlidae), Part I: H. OBLIQUIDENS Hilgendorf, H. NIGRICANS (Blgr.), H. NUCHISQUAMULATUS (Hilgendorf) and H. LIVIDUS Sp. N., by P. H. Greenwood, 22 pp., illus., printed. (Reprinted from Bulletin of the British Museum--Natural History--Zoology, vol. 4, no. 5, London, 1956.) East African Fisheries Research Organization, Jinja, Uganda.

ALGAE:

"Connective Tissue Growth Stimulated by Carageenin-2. The Metabolism of Sulphated Polysaccharides," by H. G. B. Slack, article, The Biochemical Journal, vol. 65, no. 3, March 1957, pp. 459-464, illus., printed. Cambridge University Press, American Branch, 32 East 57th St., New York 22, N. Y.

BRITISH GUIANA:

Report on British Guiana for the Year 1955, 234 pp. and map, illus., printed. B.G. Lithographic Co., Ltd., Georgetown, British Guiana. A useful source of ready reference material on economic and social activities of the British Guiana government. The section on fisheries describes the principal fishing areas and fishing methods and

efforts to improve production. Statistics are given also on the quantity and value of the catch of fishery products during 1955.

COD:

"New Cod Grounds for Longliners," article, Travellers' News, vol. 9, no. 8, February 1957, pp. 3-8, illus., printed. Department of Fisheries, Ottawa, Canada. (Readers wishing to obtain Bulletin No. 109 of the Fisheries Research Board of Canada from which the information in this article is extracted should address their requests to The Queen's Printer, Ottawa, Canada. For each copy desired a remittance of 50 Canadian cents payable to the Receiver General of Canada should be enclosed.) Deals with long-lining experiments carried out in the Bonavista, Newfoundland, area during the years 1950-1953 and the discovery of new fishing grounds. Some excellent cod-fishing grounds were found in the deep water to the eastward of the underwater projection of the Bonavista Peninsula, 18 to 20 nautical miles offshore in about 130 to 160 fathoms. To determine the potential of the newly discovered fishing grounds the 1951 long-lining experiments off Bonavista were planned along commercial lines. Results of these and other experiments are discussed. The discovery of these new fishing grounds has opened up for exploitation a great population of abundant large cod. These large deep-water fish are much better raw material than are the smaller fish for salt-fish operations, for smoking, and for some fresh fish purposes.

COMMISSIONS:

Gulf States Marine Fisheries Commission Seventeenth Annual Report, 1955-56 (to the Congress of the United States and to the Governors and Legislators of Alabama, Florida, Louisiana, Mississippi, and Texas), 37 pp., illus., printed. Gulf States Marine Fisheries Commission, 312 Audubon Bldg., New Orleans 16, La. Contains the Commission's activities for the period October 1955-October 1956, with a summary of some of the points of general interest in the compact between the States of Alabama, Florida, Louisiana, Mississippi, and Texas. It is the purpose of the compact to promote the better utilization of the fisheries, marine, shell and anadromous, of the seaboard of the Gulf coast states, by the development of a joint program for the promotion and protection of such fisheries and the prevention of the physical waste of the fisheries from any cause. This report briefly enumerates some of the activities and presents in summary the accomplishments of those agencies with which the organization is directly associated. Also included are short discussions of the U.S. Fish and Wildlife Service activities in technological and biological research and exploratory fishing in the Gulf area. A financial report of the Commission is included.

(International Commission for the Northwest Atlantic Fisheries) Statistical Bulletin for the Year 1955, 52 pp., illus., printed. International Commission for the Northwest Atlantic Fisheries, N.S., Canada, 1957. This bulletin is divided into two parts as follows: Part 1 summarizes the statistics on landings of the past four years, and Part 2 gives the tables of statistics dealing with the fisheries in the Convention Area in 1955. Following the recommendation of the

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Standing Committee on Research and Statistics, the presentation of the basic statistical data has been revised to place greater emphasis on area and month of fishing. It includes all the basic statistics for 1955 on fishing effort and on the landings of cod, haddock, redfish, halibut, the flounder group, and the other groundfish group that were reported according to the Commission's statistical requirements. Previously these basic statistics were tabulated separately for each country. Now they have been combined in one international table. However, a summary of the national statistics is given, including certain supplementary information which was reported by the member countries.

COMPOSITION:

"Tabellen der Chemischen Zusammensetzung von Fischen--I. Vitamine," (Tables of the Chemical Composition of Fish--I. Vitamins) by J. Kuhnau, article, Arch. Fischereiwiss., vol. 7, no. 1, 1956, 28 pp., printed in German. Archiv für Fischereiwissenschaft, Gustav Wenzel & Sohn, H. Heenemann KG, Berlin-Wilmersdorf Braunschweig, Germany.

CORMORANTS:

"Fishing with Cormorants," by Robert Bruce White, article, Nature Magazine, vol. 49, no. 10, December 1956, pp. 525-527, 547, illus., printed, single copy 60 cents. A brief description of fishing with cormorants by the Chinese and Japanese. In recent years fishing with cormorants has become a tourist attraction.

CRAB MEAT:

"A Rapid Method for Determining Shell in Crab Meat under Ordinary Light," by M. Oakley and A. W. Breidenbach, article, Journal of the Association of Official Agricultural Chemists, vol. 39, 1956, pp. 531-532, printed. Association of Official Agricultural Chemists, Inc., Box 540, Benjamin Franklin Station, Washington, D. C. The incidence of shell in 1-pound samples of retail crab meat was observed; the amount of shell varied from 0 to 350 pieces a pound. A method is described for staining the shell fragments so that they may be removed and counted quickly.

CRAWFISH:

"Crawfishing Time," by William M. Hall, article, Nature Magazine, vol. 50, no. 3, March 1957, pp. 124-126, illus., printed, single copy 60 cents. American Nature Association, 1214-16th St. NW, Washington 6, D. C. Describes briefly the life history and habits of the crawfish, as it is known in Louisiana. The crawfish, a lobster-like crustacean, is a fresh-water inhabitant living mostly in shallow streams and lowlands. Crawfishing is a popular sport in Louisiana and an important commercial item.

DEHYDRATION:

"Fish Dehydration--A Warm Air Process," article, Food Manufacture, vol. 31, August 1956, pp. 326-329, illus., printed. Leonard Hill Ltd., Stratford House, 9 Eden, London N. W. 1, England.

DELAWARE:

Annual Report of the Delaware Commission of Shell Fisheries of the State of Delaware for the

Fiscal Year July 1, 1955 to June 30, 1956, 6 pp., processed. The Delaware Commission of Shell Fisheries, Dover, Del., 1956.

EAST AFRICA:

Preliminary Survey of the Pelagic Fishes of East Africa, by F. Williams, Colonial Office Fishery Publications No. 8, 70 pp., illus., printed, 15s. 6d. (US\$2.16). Her Majesty's Stationery Office, London, England, 1956.

FOOD AND AGRICULTURE ORGANIZATION:

Argentina: Decree No. 7,967 amending Article 91 of the Food Regulations, Food and Agricultural Legislation, vol. 5, no. 3, XVII.2/56.1, 2 pp., printed. Food and Agriculture Organization of the United Nations, Rome, Italy. (For sale by Columbia University Press, International Documents Service, 2960 Broadway, New York 27, N. Y.) An amendment permitting the sale of raw fish in fillets or pieces providing that the fish has been kept chilled and is prepared under official inspection.

Canada: Fishing Vessel Indemnity Regulations under the Appropriation Act No. 5 of 1955 and Appropriation Act No. 6 of 1956 (SOR/56-304--Order in Council 1956-1291), Food and Agricultural Legislation, vol. 5, no. 3, XVIII.3/56.1, 9 pp., printed. Food and Agriculture Organization of the United Nations, Rome, Italy. (For sale by Columbia University Press, International Documents Service, 2960 Broadway, New York 27, N. Y.)

Union of South Africa (South-West Africa): Food, Drugs and Disinfectants Regulations made under the Food, Drugs and Disinfectants Ordinance No. 36 of 1952, Food and Agricultural Legislation, vol. 5, no. 3, XI.9/56.2, 43 pp., printed. Food and Agriculture Organization of the United Nations, Rome, Italy. (For sale by Columbia University Press, International Documents Service, 2960 Broadway, New York 27, N. Y.) Includes, among others, regulations on the quality, labeling, and standards of canned fish and shellfish.

FRANCE:

Bulletin Officiel d'Information du Conseil Supérieur de la Pêche (Official Information Bulletin of the High Council of Fisheries), 114 pp., printed, 100 francs (29 U.S. cents). H. Siraudau & Compagnie, 6 place de la Visitation, Angers - C./C. Paris 4012-03. Contains the following sections: I--Activities of the High Council of Fisheries; II--Technical Section (e.g. Restocking of Pike); III--Official Documentation; IV--Judicial Section; V--Regional Section; and VI--Miscellaneous Information.

Manuel du Poissonier (A Manual for Fish Dealers), 282 pp., illus., printed, 1,000 francs (US\$2.86). National Committee for the Promotion of Consumption of Fish, 11 rue Anatole de la Forge, Paris XVII^e, France. A compilation of articles by various qualified authors dealing with the technical and general phases of fish wholesaling and retailing. A number of colored plates illustrating different species of commercially-important edible fish are present as well as numerous tables, graphs, and photographs relating to

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commercial fish distribution. Some of the individual subjects are: the fish dealer and his store; purchases and sales; description of 35 currently consumed fish and how they are caught; byproducts of the fishing industry and their use; fishing ports; land transportation of fishery products; and laws and regulations connected with fish dealership.

--R. Duckworth

FREEZING:

"Freezing Fish in Alginate Jelly," by I. A. Olsen, article, Food Manufacture, vol. 30, 1955, pp. 267-270, 285, printed. Food Manufacture, Leonard Hill Ltd., 17 Stratford Pl., London, W.1, England.

"Frysning af Krebsdyr" (Freezing of Crustaceans), by E. W. Hansen, article, Kulde, vol. 9, 1955, pp. 18-20, printed in Danish. Dansk Køltekhnisk Tidsskrift, Copenhagen, Denmark.

GENERAL:

Chlorophyll a in the Phytoplankton in Coastal Waters of the Eastern Gulf of Mexico, by Nelson Marshall, Contribution No. 29, 19 pp., illus., printed. (Reprinted from Sears Foundation: Journal of Marine Research, vol. 15, no. 1, October 15, 1956, pp. 14-32.) Oceanographic Institute, Florida State University, Tallahassee, Fla.

The Galathea Deep Sea Expedition, 1950-52, by Anton F. Bruun, Sv. Greve, Hakon Mielche, and Ragnar Sparck, Eds., translated from Danish by Reginald Spink, 296 pp., illus., printed, \$8. The Macmillan Co., 60 Fifth Ave., New York 11, N.Y. The story of a marine-biological world expedition told by the scientists themselves, describing the wonders they found on a trip around the world to all the Seven Seas.

GULF OF MEXICO:

"Some Observations on the Behaviour of Schools of Fishes in the Gulf of Mexico and Adjacent Waters," by Stewart Springer, article, Ecology, vol. 38, no. 1, January 1957, pp. 166-171, printed. Duke University Press, Box 6697, College Station, Durham, N.C.

HERRING:

Herring Rearing--III. The Effect of Temperature and other Factors on Myotome Counts, by J.H.S. Blaxter, Scottish Home Department Marine Research No. 1, 19 pp., illus., printed, 4s. (56 U.S. cents). Her Majesty's Stationery Office, Edinburgh, Scotland, 1957.

HONG KONG:

Hong Kong Annual Departmental Report by the Registrar of Co-Operative Societies and Director of Marketing for the Financial Year 1955-56, 50 pp., illus., printed. Government Printer, Java Road, Hong Kong. This report covers the activities of the Department from April 1, 1955, to March 31, 1956; The Cooperative Division section discusses the activities of the Fish Pond Society; Fishermen's Thrift Societies; Fishermen's Thrift and Loan Societies; Fishermen's Thrift, Loan and Housing Society; and Fishermen's Credit and Marketing Society. Section III discusses credit facilities for fishermen. Among the subjects discussed in the Marketing Division

section are: establishment of the Fish and Vegetable Marketing Organization, wholesale prices of fresh and salt-dried fish, quantity and value of fish marketed, education, and related subjects.

KENTUCKY:

Results of an Opening Week Creel Census and Tagging Study on Three State-Owned Lakes, by Charles C. Bowers and Mayo Martin, Fisheries Bulletin No. 20, 13 pp.; illus., processed. Department of Fish and Wildlife Resources, Frankfort, Ky., October 1956.

KOREA:

Export Directory of Korea, 1957, 110 pp., illus., printed. Ministry of Commerce and Industry, Seoul, Korea. This directory describes and illustrates all items produced in Korea which are available for export. In addition to the listing and description of export commodities, it contains a description of export procedures and policies and lists of trade associations, exporters, and manufacturers. Among the exportable commodities listed are the following fish and related items: dried abalone, agar-agar, li and fresh fish, salted fish, shark-liver oil, dried oysters, pearl essence, seasoned sea urchins, seaweed, shark fins, shells for buttons, dried shrimp, and dried trepang.

LOBSTER:

"The Lobster," by E. B. Dewberry, article, Food Manufacture, vol. 29, 1954, pp. 353-357, 391-395, printed. Food Manufacture, Leonard Hill Ltd., 17 Stratford Pl., London, W.1, England. A description of the distribution, food value, habits and life history, fishing season, and temporary storage of the live lobster. An account is also given of the lobster canning industry in Canada and South Africa, and of processing and packing operations involved.

NAVIGATION:

The Mariner's Weather Log, vol. 1, no. 1, January 1957, 20 pp., illus., processed. Weather Bureau, U.S. Department of Commerce, Washington 25, D.C. This is the first issue of The Mariner's Weather Log, a bimonthly publication providing information on weather over the ocean and the Great Lakes. This issue includes reports on meteorological and oceanographic navigation: smooth log, North Atlantic Weather, July, August 1956; rough log, North Atlantic Weather, September-November, 1956; gale tables, and marine weather diary. It also includes the following articles: "Hurricane Frequencies," by William H. Haggard; and "North Atlantic Tropical Storms, 1956," by Howard C. Sumner.

Supplement to United States Coast Pilot 2, Atlantic Coast, Section B, Cape Cod to Sandy Hook, Fifth (April 1, 1950) Edition, Serial 736/7, 69 pp., printed, February 9, 1957; Supplement to United States Coast Pilot 3, Atlantic Coast, Sandy Hook to Cape Henry, Sixth (June 6, 1953) Edition, Serial 770/4, 42 pp., printed, February 2, 1957; and Supplement to United States Coast Pilot 4, Atlantic Coast, Section D, Cape Henry to Key West, Fifth (May 15, 1948) Edition, Serial 715/9, 99 pp., printed, February 9, 1957. Coast and Geodetic

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Survey, U. S. Department of Commerce, Washington 25, D. C.

NORTHEAST PACIFIC:

"Climatic Trends and Fluctuations in Yield of Marine Fisheries of the Northeast Pacific," by K. S. Ketchen, article, Journal of the Fisheries Research Board of Canada, vol. 13, no. 3, May 1956, pp. 357-374, illus., printed. Fisheries Research Board of Canada, Pacific Biological Station, Nanaimo, B. C., Canada.

NORWAY:

Arsmelding 1955 fra Fiskeridirektoratets Kjemisk-Tekniske Forskningsinstitutt (1955 Annual Report from the Fishery Directorate of the Chemical-Technological Research Institute), no. 3, 51 pp., illus., printed in Norwegian. Kjemisk-Tekniske Forskningsinstitutt, Bergen, Norway, 1957.

OYSTER:

The Crown Conch, MELONGENA CORONA, as a Predator upon the Virginia Oyster, by Gordon Gunter and R. Winston Menzel, 4 pp., printed. (Reprinted from The Nautilus, vol. 70, no. 3, January 1957, pp. 84-87.) Gulf Coast Research Laboratory, Ocean Springs, Miss.; or Oceanographic Institute, Florida State University, Tallahassee, Fla.

POLLUTION:

Pollution Studies in Biscayne Bay during 1956, by J. Kneeland McNulty, Progress Report 57-8, 27 pp., illus., processed. The Marine Laboratory, University of Miami, Coral Gables, Fla., February 1957.

PRESERVATION:

"Badania nad Wplywem Lodu Azotynowanego na Trwalosc i Jakosc Dorsza Baltzyckiego" (Studies on the Influence of Nitrite-Treated Ice on the Storage Life and Quality of Baltic Haddock), by J. Borowik, E. Fischer, S. Ostrowski, and P. Trzesinski, article, Przem. Spozyw., vol. 10, 1956, pp. 282-283, printed in Polish with summary in English. Przemysl Spozywczy (Food Industry), Czackiego 3/5, NOT, pok. 29 c, Warsaw, Poland.

"Beitrag zur Methodik der Konservierungsmittelbestimmung in Fischindustriellen Erzeugnissen. II. Uber Bestimmung, Verteilung und Verbleib von Konservierungsmitteln in Fischindustriellen Erzeugnissen" (Contribution to Methods for the Determination of Preservatives in Commercial Fish Products. II. Determination, Distribution and Retention of Preservatives in Commercial Fish Products), by R. Hutschenreuter, article, Zeitschrift fur Lebensmitteluntersuchung und -Forschung, vol. 104, 1956, pp. 161-168, printed in German. Zeitschrift fur Lebensmitteluntersuchung und -Forschung, Berlin, Germany.

"Effectiveness of Chlorotetracycline (Aureomycin) on Keeping Quality of Pacific Round Herring, Etrumeus micropus," by Tetuo Tomiyama, Shunichi Kuroki, Denki Maeda, Moriji Hamada, and Akira Honda, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 22, no. 2, 1956, pp. 120-127, printed in Japanese with

summary in English. The Japanese Society of Scientific Fisheries, Tokyo, Japan.

"Effectiveness of Chlorotetracycline on Keeping Quality of Several Bottom Fish," by Tetuo Tomiyama, Yasuo Yone, Shunichi Kuroki, Minoru Nomura, Shotaro Hara, Tetu Schichizi, Toshihiro Maeda, Ichiro Oda, and Toshio Matsuo, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 22, no. 2, 1956, pp. 128-135, printed in Japanese with summary in English. The Japanese Society of Scientific Fisheries, Tokyo, Japan.

SALMON:

"Atlantic Salmon Tagged in East Coast Newfoundland Waters at Bonavista," by A.A. Blair, article, Journal of the Fisheries Research Board of Canada, vol. 13, no. 2, March 1956, illus., printed. Fisheries Research Board of Canada, Pacific Biological Station, Nanaimo, B. C., Canada. Describes methods of tagging salmon and grilse and reports the proportion recaptured and the distribution and movements of recaptures.

Leaper: The Story of an Atlantic Salmon, by Robert M. McClung, 64 pp., illus., printed, \$2.25. William Morrow & Co., 425 Fourth Ave., New York 16, N. Y. A story for children of the life cycle of a salmon from his hatching from a pale pink egg to his return to his birthplace to fertilize another generation of salmon eggs.

A Review of the Literature on the Biology of the Atlantic Salmon (SALMO SALAR Linn.), by K.A. Pyefinch, Freshwater and Salmon Fisheries Research Report No. 9, 24 pp., printed. Her Majesty's Stationery Office, Scottish Home Department, 13a Castle Street, Edinburgh, 2, Scotland.

"A Survey of the 1955 Scarcity," condensation of an address by Dr. C.J. Kerswill, The Atlantic Salmon Journal, no. 1, February 1956, pp. 23-24, illus., printed. The Atlantic Salmon Association, 1559 McGregor St., Montreal 25, Canada.

SEA TROUT:

"The Weakfish (Cynoscion regalis) in New York Waters," by Alfred Perlmutter, William S. Miller, and John C. Poole, article, New York Fish and Game Journal, vol. 3, no. 1, January 1956, pp. 1-43, illus., printed. New York Conservation Department, Albany 1, N. Y. Reports on a study to determine the cause of the scarcity of weakfish or gray sea trout in New York waters. The study revealed that a decrease in southern-spawned stock has caused the scarcity and that a means of increasing the stock must be found to produce an abundant supply of weakfish.

STARFISH:

"Intensity of Setting of Starfish in Long Island Sound in Relation to Fluctuations of the Stock of Adult Starfish and in the Setting of Oysters," by Martin D. Burkenroad, article, Ecology, vol. 38, no. 1, January 1957, pp. 164-165, printed. Duke University Press, Box 6697, College Station, Durham, N. C.

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

TERRITORIAL WATERS:

(International Law Commission) Report of the International Law Commission on the Work of its Eighth Session: (a) Final Report on the Regime of the High Seas, the Regime of the Territorial Sea and Related Problems. Agenda item 53 (a) (XI). Australia, Brazil, Ceylon, Cuba, Denmark, Dominican Republic, France, Greece, Guatemala, Netherlands, New Zealand, Norway, Pakistan, Panama, Philippines, Portugal, Spain, Sweden, Thailand, United Kingdom, United States, and Uruguay. United Nations, International Law Commission, New York, N. Y. The following processed reports have been issued for limited distribution:

A/C.6/L.385/Rev. 1, 3 pp., December 19, 1956. Revised joint draft resolution.

A/C.6/L.389, 1 p., December 14, 1956. Ceylon, India, and Indonesia: amendment to joint draft resolution.

A/C.6/L.391, 1 p., December 17, 1956. Belgium: amendment to the joint draft resolution.

A/C.6/L.392, 1 p., December 18, 1956. Argentina, Chile, Ecuador, El Salvador, Haiti, Mexico, Paraguay, and Peru: amendments to the joint draft resolution.

A/C.6/L.393, 1 p., December 18, 1956. Afghanistan, Austria, Bolivia, Czechoslovakia, Nepal, and Paraguay: amendment to the joint draft resolution.

A/C.6/L.395, 23 pp., December 21, 1956. Statement by J.P.A. Francois, Rapporteur of the International Law Commission, at the 500th meeting of the 6th Committee.

A/C.6/L.396, 2 pp., December 19, 1956. Israel, Mexico, and Peru: amendments to the joint draft resolution.

A/C.6/L.397, 2 pp., December 19, 1956. Statement of financial implication submitted by the Secretary-General.

A/C.6/L.398, 3 pp., December 21, 1956. Text of the draft resolution adopted by the 6th Committee at its 505th meeting.

TRADE AGREEMENTS AND TARIFFS:

Operation of the Trade Agreements Program, Ninth Report, July 1955-June 1956, 390 pp., processed. United States Tariff Commission, Washington 25, D.C., 1957. During the period covered by this report, the United States and other contracting parties to the General Agreement on Tariffs and Trade met at Geneva, Switzerland, for the fourth round of multilateral tariff negotiations sponsored by the Contracting Parties. This report describes the negotiations at Geneva, and analyzes the concessions that the United States granted and obtained in those negotiations. It also discusses other important developments that occurred during 1955-56 respecting the trade agreements program. These include proposals of legislation that authorize the United States to participate in the Organization for Trade Cooperation; actions of the Contracting Parties relating to the general provisions and administration of the General Agreement; actions of the United States relating to its trade agreements program; and changes in tariffs, exchange controls, and quantitative trade restrictions that were made by countries with which the United States has trade agreements.

TRANSPORTATION:

Protecting Perishable Foods during Transportation by Truck, by Harold D. Johnson and P.L. Breakiron, Agriculture Handbook No. 105, 73 pp., illus., printed, 30 cents. U.S. Department of Agriculture, Agricultural Marketing Service, Washington, D.C., December 1956. (For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.) Motortruck equipment is available to provide the optimum temperature and humidity for perishable commodities during transportation. However, the requirements of different commodities vary widely, and it is necessary that the shipper or trucker know the specific needs of the commodity being transported so that he may use the right equipment in the right way. Although this handbook describes the proper care of perishable agricultural commodities during transportation by motortruck, some of the information might be of interest to those handling fishery products.

Suggested Methods for Checking Temperatures of Fresh and Frozen Food Shipments, by Robert F. Guilfooy and Harold D. Johnson, Marketing Research Report No. 150, 9 pp., illus., processed, 5 cents. U.S. Department of Agriculture, Agricultural Marketing Service, Washington, D.C. (For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.) Although this publication contains methods for checking temperatures of fresh and frozen agricultural food products in transit, some of the information might be of interest to those handling fishery products.

TUNA:

"Additional Observations on the Biology of the Northern Bluefin Tuna, *Kishinoella tonggol* (Bleeker), in Australia," by D. L. Serventy, article, Australian Journal of Marine and Freshwater Research, vol. 7, no. 1, April 1956, pp. 44-63, illus., printed. Australian Journal of Marine and Freshwater Research, Commonwealth Scientific and Industrial Research Organization, 314 Albert St., East Melbourne, C.2, Victoria, Australia.

Changes in the Size Structure of the Yellowfin Tuna Population of the Tropical Eastern Pacific Ocean from 1947 to 1955, by Gordon C. Broadhead, vol. II, no. 1, 20 pp., illus., printed in English and Spanish. Inter-American Tropical Tuna Commission, La Jolla, Calif., 1957. Both the analysis of the logbook data and the study of the hook sizes used by the fleet indicate that in recent years, coincident with the higher fishing intensities, there has been a decrease in the proportion of large yellowfin tuna and a corresponding increase in the proportion of small yellowfin tuna in the catch from the Eastern Pacific. As the baitboat fleet takes about 85 percent of the total catch of yellowfin tuna from this region, this conclusion appears warranted from the study of its catches. The general indications of changes in the average size of the yellowfin tuna landed by the commercial fishery, correlated with changes in the fishing effort during the past decade, while not entirely

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conclusive, corroborate the strong statistical evidence that the recent levels of fishing intensity have been sufficiently high to affect the stocks of yellowfin tuna in the Eastern Tropical Pacific, and further suggest that the returns from tagging experiments are far below the true levels of exploitation of the stocks.

"Distribution, Age and Growth of Eastern Pacific Albacore (*Thunnus alalunga* Gmelin)," by J. M. Partlo, article, Journal of the Fisheries Research Board of Canada, vol. 12, no. 1, January 1955, pp. 35-60, illus., printed. Fisheries Research Board of Canada, Pacific Biological Station, Nanaimo, B. C., Canada.

"The Fishing's Fine!" by John T. Foster, article, The Canner and Freezer, vol. 124, no. 1, January 7, 1957, pp. 13-15, illus., printed, single copy 25 cents. Canner Publishing Co., 105 W. Adams St., Chicago 3, Ill. Discusses the Gulf Coast tuna fishery and the possibility of it becoming a major new industry. The author states that "Interests in the Pascagoula-Biloxi, Miss., area foresee the time when the Gulf Coast, with its Gulf-caught yellowfin tuna, will be a serious competitor to Southern California, the citadel of the United States tuna industry. West Coast interests, of course, foresee nothing of the sort. They concede, however, that the Gulf Coast might engender a small tuna industry, and they are keeping a close watch on developments."

"The Southern Bluefin Tuna, *Thunnus thynnus maccoyii* (Castelnau), in Australian Waters," by D. L. Serventy, article, Australian Journal of Marine and Freshwater Research, vol. 7, no. 1, April 1956, pp. 1-43, illus., printed. Australian Journal of Marine and Freshwater Research, Commonwealth Scientific and Industrial Research Organization, 314 Albert Street, East Melbourne, C. 2, Victoria, Australia.

A Study of Changes in Fishing Effort, Abundance, and Yield for Yellowfin and Skipjack Tuna in the Eastern Tropical Pacific Ocean, by Bell M. Shimada and Milner B. Schaefer, Bulletin--vol. 1, no. 7, pp. 351-469, illus., printed in English and Spanish. Inter-American Tropical Tuna Commission, La Jolla, Calif., 1956. A study was undertaken to determine from the historical records of the fishery the effects of fishing upon the stocks of yellowfin and skipjack tuna of the Eastern Pacific region and to evaluate the present condition of these stocks with respect to the maximum equilibrium yield. It was concluded from the inverse relationships exhibited between changes in apparent abundance and fishing effort that the amount of fishing has had a real effect upon the stock of Eastern Pacific yellowfin tuna, taken in the aggregate, over the period studied. The evidence suggests also that for this species the in-

tensity of fishing in some recent years has reached and might even have exceeded the level corresponding to the maximum equilibrium yield. For skipjack, no correlation was found between changes in population size with changes in fishing intensities thus far encountered, indicating that the fishery has had little, if any, apparent effect on the abundance of this species. It therefore appears that further increases in the sustainable total catch of yellowfin tuna above that already attained cannot be expected from increased fishing effort, whereas, for skipjack, it seems possible to increase the average annual catch on a sustained basis without detriment to the welfare of the resource.

UGANDA:

The Fishes of Uganda--II, by P. H. Greenwood, illus., printed. (Reprinted from The Uganda Journal, vol. 20, no. 2, September 1956, pp. 129-165.) East African Fisheries Research Organization, Jinja, Uganda.

Some Aspects of the Respiration of Six Species of Fish from Uganda, by G. R. Fish, 10 pp., illus., printed. (Reprinted from The Journal of Experimental Biology, vol. 33, no. 1, pp. 186-195, March 1956.) East African Fisheries Research Organization, Jinja, Uganda.

UNION OF SOUTH AFRICA:

The South African Pilchard (*SARDINOPS OCELLATA*) and Maasbanker (*TRACHURUS TRACHURUS*), Bird Predators, 1954-55, by D. H. Davies, Division of Fisheries Investigational Report No. 23, 40 pp., illus., printed. (Reprinted from Commerce and Industry, September 1956.) Department of Commerce and Industries, Division of Fisheries, Pretoria, Union of South Africa. Reports on the second year of investigation into the feeding habits of three important fish-eating birds of the main pelagic commercial fishing area of St. Helena Bay off the West coast of the Union of South Africa.

UNITED KINGDOM:

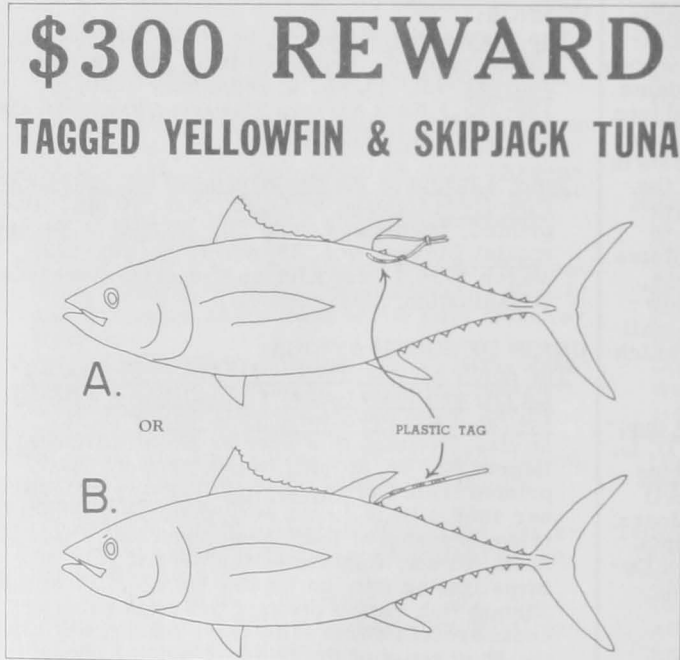
Report on Enquiry into the Costs of Distributing White Fish, 47 pp., printed. White Fish Authority, Tilbury House, Petty France, London, S.W.1, England, 1956. The main purpose of this study was to secure representative information about the costs of distributing white fish. This report explains the procedure and methods used in the study, and includes a number of tables summarizing and analyzing the sales, expenses, and margins of the 4 main groups of distributors--port wholesale merchants, inland wholesale merchants, fishmongers, and fish friers. It also gives an estimate of the aggregate value of white fish bought and sold by each of the above groups, and a synthesis of the retail selling price of cod fillets.



TAGGED YELLOWFIN AND SKIPJACK TUNA ROAMING EASTERN PACIFIC

The Inter-American Tropical Tuna Commission, with the cooperation of the tuna fleet, is releasing marked yellowfin and skipjack tuna throughout the eastern Pacific (California to Peru). The fish bear EITHER type A. or B. tag as shown below. Each tag is numbered and has the legend "Return Tuna Comm. San Diego" printed on the plastic.

To stimulate interest in the program, the Commission will pay a reward of one dollar (\$1.00) for each tag returned and in addition will conduct a drawing each year and will award the sum of \$300.00 in cash to the person who returned the tag number which is drawn. The tags should be returned to a staff member or mailed to the Inter-American Tropical Tuna Commission.



The tags are short pieces of plastic tubing, of different colors, which are attached to the fish immediately after the second dorsal fin. Each tag bears a serial number and the legend "Return Tuna Comm. San Diego." Only bona fide tags will be eligible for the annual drawing and the Commission reserves the right to make all identifications. In the event a tag number is marred, or otherwise damaged beyond legibility, the Commission shall, for the purpose of the drawing, substitute a different tag number not used during the year.

To be eligible for the drawing, tags must be mailed to the Commission or returned to a staff member. All senders of bona fide tags will be notified by mail that their entries are eligible.

The Commission will conduct a drawing annually at a time and place specified by the Commission. All bona fide tags returned between March 1 and December 31, 1957, will be entered in the 1957 drawing and thereafter all tags returned during a calendar year will participate in that year's drawing.

The drawing shall be held publicly, and in an impartial manner to be determined by the Commission, and \$300.00 in cash, will be presented by the Commission to the person who returned the tag number drawn.

In all matters relating to the conduct and results of these drawings, the decision of the Commission shall be final. The Commission shall not be liable for any legal action concerning the drawings, and reserves the right to discontinue the same at any time.