



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.
 FL - FISHERY LEAFLETS.
 SL - STATISTICAL SECTION LISTS OF DEALERS IN AND PRODUCERS OF FISHERY PRODUCTS AND BYPRODUCTS.
 SSR - FISH. - SPECIAL SCIENTIFIC REPORTS--FISHERIES (LIMITED DISTRIBUTION).
 SEP. - SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.

<u>Number</u>	<u>Title</u>
CFS-1535	- Massachusetts Landings, September 1956, 6 pp.
CFS-1538	- Florida Landings, February 1957, 6 pp.
CFS-1539	- Georgia Landings, 1956 Annual Summary, 3 pp.
CFS-1540	- Gulf Fisheries, 1955 Annual Summary, 10 pp.
CFS-1541	- Mississippi River Fisheries, 1955 Annual Summary, 8 pp.
CFS-1542	- North Carolina Landings, March 1957, 2 pp.
CFS-1543	- South Carolina Landings, March 1957, 2 pp.
CFS-1544	- Ohio Landings, March 1957, 2 pp.
CFS-1545	- California Landings, January 1957, 4 pp.
CFS-1547	- New Jersey Landings, March 1957, 4 pp.
CFS-1548	- California Landings, February 1957, 4 pp.
CFS-1549	- Georgia Landings, March 1957, 2 pp.
CFS-1551	- Maine Landings, March 1957, 3 pp.
CFS-1552	- Texas Landings, March 1957, 3 pp.
CFS-1553	- New York Landings, March 1957, 4 pp.
CFS-1554	- Massachusetts Landings, October 1956, 6 pp.
CFS-1555	- Massachusetts Landings, November 1956, 6 pp.
CFS-1556	- Frozen Fish Report, April 1957, 8 pp.
CFS-1557	- Ohio Landings, April 1957, 2 pp.
CFS-1558	- Massachusetts Landings, December 1956, 6 pp.
CFS-1559	- Shrimp Landings, January 1957, 5 pp.
CFS-1567	- South Carolina Landings, April 1957, 2 pp.
CFS-1568	- Georgia Landings, April 1957, 2 pp.
FL-147	- List of Federal Fish-Cultural Stations 7 pp., revised January 1957.
FL-439	- The Dungeness Crab Industry, by Fred W. Hipkins, 12 pp., illus., May 1957. Deals with the Dungeness Crab, <u>Cancer magister</u> , often called the Pacific crab. Includes a brief history of the

commercial fishery, fishing areas, methods of capture, fishing boats, and regulations for the commercial fishery of Dungeness crabs. Methods of processing and marketing are also included. Statistics are given on landings of Dungeness crabs in California, Oregon, Washington, and Alaska from 1946 to 1954, and the annual pack of canned crabs from 1948 to 1955.

SL-10 - Wholesale Dealers in Fishery Products, Maryland, 1957 (revised).

SSR-Fish. No. 207 - Toxicity of 4,346 Chemicals to Larval Lampreys and Fishes, by Vernon C. Applegate, John H. Howell, A. E. Hall, Jr., and Manning A. Smith, 160 pp., March 1957. Results of a study to locate chemicals which would be acutely toxic to larval sea lampreys at extremely low concentrations and which, at the same concentrations, would be non-toxic to other fishes inhabiting the same natural environments.

Sep. No. 479 - North Pacific Albacore Tuna Exploration by the M/V John N. Cobb--1956.

Sep. No. 480 - Research in Service Laboratories (June 1957): Contains these articles--"Cold Storage of Frozen Pacific Oysters (Crassostrea gigas) - No. 2 - Effect of Antioxidant and Other Treatments on Keeping Quality;" "Chemical Composition Varies for Different Parts of Fish;" "Commercial Use of Alaska Sea Lions Studied;" "Study of Dry Solids, Salt, and Free Liquor Relationships in Oysters;" and "Technical Note No. 38 - A Portable Fish Meal Blender for Pilot-Plant Use."

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

California Fishery Products Monthly Summary, April 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, May 1957, 5 pp. (Market News Service, U.S. Fish and Wildlife Service, 609-611 Federal Bldg., New Orleans 12, La.) Gulf States shrimp, oyster, finfish, and blue crab landings; crab meat production; LCL express shipments from New Orleans; 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, April 1957, 4 pp.; Monthly Summary of Fishery Products Production in Selected Areas of Virginia, North Carolina, and Maryland, May 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 months indicated.

(New York) Monthly Summary - February 1957 - Receipts of Fishery Products at the New York City Wholesale Salt-Water Market, 13 pp. (Market News Service, U.S. Fish and Wildlife Service, 155 John St., New York 38, N.Y.) Receipts in the salt-water section of the Fulton Fish Market by species and by states and provinces for the month indicated.

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

How to Cook Lobsters, by Jean Burtis, Ellen H. Nagy, and Rose G. Kerr, Test Kitchen Series No. 11, 15 pp., illus., printed, 20 cents, 1957. Not only recipes for cooking lobsters, but illustrations on how this shellfish should be eaten are included. The booklet contains 33 recipes developed and kitchen-tested by the Service's staff of home economists for two kinds of lobsters--the large northern and the spiny or rock lobster. Some of the recipes included in the new publication are: Lobster and Cheese Delights, Lobster and Orange Cocktail, French Fried Spiny Lobster Tails, Baked Stuffed Lobsters with Cheese, Lobster Thermidor, Lobster Newburg, Lobster Tarts, Lobster in Sour Cream, Lobster and Walnut Sandwiches, and Lobster Waffles. A page of five pictures is devoted to illustrating the essential steps in "how to eat a lobster" so that only the shell is left.

MISCELLANEOUS PUBLICATIONS

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

ANIMAL FEEDING:

"Feeding Mackerel and Herring to Mink Kits," by K. Hovgaard Nielsen, article, Dansk Pelsdyravl, vol. 18, June 1955, pp. 223-225, printed. Dansk Pelsdyravl, Sdeasdy 8, Copenhagen, Denmark.

BAIT FISH:

A Study of the Eastern Pacific Fishery for Tuna Baitfishes, with Particular Reference to the Anchoveta (CETENGRAULIS MYSTICETUS), by Franklin G. Alverson and Bell M. Shimada, Bulletin vol. 11, no. 2, pp. 25-79, illus., printed in English and Spanish. Inter-American Tropical Tuna Commission, La Jolla, Calif., 1957. With the substantial increase in recent years in the

production of the tropical tunas, there have been greater demands for live bait. This increased need for larger amounts of bait fishes has given rise to important questions relating to the manner in which these populations may be most wisely used. The Inter-American Tropical Tuna Commission has been concerned with various aspects of this problem since its establishment in 1950. This report presents some of the results obtained from the Commission's studies of the bait fishes important to the fishery for yellowfin and skipjack tuna. It traces briefly the origin and development of the bait fishery, describes its operations, extent, and yield, and discusses some aspects of the effects of exploitation upon the Eastern Pacific bait fish populations, particularly of the anchoveta (Cetengraulis mysticetus). The authors conclude from the available data "that during the period 1946 to 1954 the California fishery for yellowfin and skipjack tunas did not reach an intensity sufficiently high to markedly affect the abundance of any of the major species of bait fishes in the Eastern Pacific Ocean. Furthermore, at present levels of exploitation, there is no imminent danger of these bait fish populations being reduced to sizes below those corresponding to the maximum sustainable harvest."

CALIFORNIA:

Preliminary Report of the Assembly Interim Committee on Fish and Game, vol. 5, no. 2, 19 pp., printed. California Legislature, Sacramento, Calif., 1957.

Report by the Assembly Interim Committee on Fish and Game, vol. 5, no. 3, 123 pp., illus., printed. California Legislature, Sacramento, Calif., 1957.

Statistical Report of Fresh, Canned, Cured, and Manufactured Fishery Products, Year 1956, Circular No. 31, 15 pp., printed. Marine Fisheries Branch, Department of Fish and Game, Sacramento 14, Calif., 1957. This is the 31st consecutive report of fresh and processed fishery products produced in California. Through the annual publication of these figures, the State Legislature, commissioners, members of industry, sportsmen, and other interested individuals and groups can obtain a picture of trends and developments. The tables are basically the same as in previous years. Landings of each species of fish, mollusk, and crustacean by the commercial fishing fleet are recorded in pounds. These landings are separated into seven general regions and totaled Statewide. General origin of the commercial catch and the volume of shipments are recorded. Shipment figures represent fish received for canning and processing. Total case pack is listed for each variety of fish according to container size and type of pack. The record of the pack is presented separately for the Los Angeles and San Diego districts and for Central California. The latter includes all the area from the San Luis Obispo-Santa Barbara County line to the State's northern boundary. Most of the canning reported in the Central California category, however, is from Monterey and the San Francisco Bay area. Other fishery products processed in California are recorded. The combined volume of canned and smoked sport-caught fish is listed.

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All the information on production used in these tables is obtained from monthly and annual reports submitted by the industry. Sardine landings and the products manufactured are recorded. Total annual case pack of anchovy, tuna, bonito, and yellowtail in various sizes of containers has been equated to the most common pack size for each variety.

CANADA:

1953 Landings of Atlantic Groundfish in Canada (Excluding Newfoundland), by W. R. Martin and G. J. W. Sullivan, Statistical Series Circular No. 7, 10 pp., illus., processed. Fisheries Research Board of Canada, Biological Station, St. Andrews, N. B., Canada, February 1957. This circular provides a digest of 1953 groundfish statistics for Canada, excluding Newfoundland. Simple graphs and tables summarize landings by area fished, months, type of fishing, and fishing effort.

"Protein Hunters of the Atlantic," by Mark Ronayne, article, Trade News, vol. 9, no. 9, March 1957, pp. 3-8, 16, illus., printed. Department of Fisheries, Ottawa, Canada. A summary of the extensive fisheries research being conducted at the Fisheries Research Board's Biological Station in St. John's, Newfoundland. This research deals primarily with the various groundfish species since these comprise the bulk of the important commercial species in both inshore and offshore Newfoundland waters. Other types of research going on at the St. John's Station are described.

CLAMS:

The Maine Clam (MYA ARENARIA), by Robert L. Dow and Dana E. Wallace, 35 pp., illus., printed. Department of Sea and Shore Fisheries, State House, Augusta, Maine, April 1957. Contains a history of Maine's soft-clam fishery, its commercial importance, and distribution. Describes and illustrates the anatomy of the clam and discusses some of the factors which, taken together, make up what is called the life history of the clam. Also includes a history of clam conservation and management of the resource.

COD:

Atlantic Cod Tagging off the Southern Canadian Mainland, by R. A. McKenzie, Bulletin No. 105, 99 pp., illus., printed. Fisheries Research Board of Canada, Ottawa, Canada, 1956. This paper deals mainly with the results of taggings from 1930 to 1940 in many of the principal cod fishing areas in the Bay of Fundy, off the outer coast of Nova Scotia, and in the southwestern Gulf of St. Lawrence. It was found that "Cod populations present in summer inshore from the Bay of Fundy to Canso were largely stationery, mixing only slightly with their neighbors along shore or offshore. On the banks off eastern Nova Scotia mixing was not sufficient to make one homogenous population, cod summering in the Banquereau area being more or less separate from those about Sable Island. There was an annual migration, best developed close to the Laurentian Channel, of cod wintering on the eastern banks and the inshore grounds off the outer coast of Nova Scotia and summering about northern Cape Breton or in the Gulf of St. Lawrence; there were apparently divisions within this migratory stock. Most of the

cod of the Gaspé-Anticosti and Prince Edward Island-northern New Brunswick areas apparently remained in the Gulf, with some mixing between populations resident in the Gulf but not enough to make a single homogenous population. A distinct group of cod spawned in the autumn in inlets of the outer coast of Nova Scotia. Only 2 percent of all the cod recaptured had crossed the Laurentian or Fundian channels, the cod population of the area under review being distinct from those of grounds off Newfoundland or New England. All these findings from tagging accord with those from an analysis of vertebral counts. Movements of cod were related to submarine physiography, deep channels acting as barriers. Within the area as a whole, movement increased from west to east, as does the seasonal range of water temperatures. Larger cod moved, on the average, more than smaller. Average size of cod increased with depth. Cod of the same size from deeper water moved more than those from shallower water. Movements have been related to spawning in some instances. No large-scale, well-defined movements related to feeding were shown, although concentrations of food are believed to influence movements. Seasonal changes in local fisheries for cod were related to movements indicated by tagging."

COMMISSIONS:

Fifteenth Annual Report of the Atlantic States Marine Fisheries Commission (to the Congress of the United States and to the Governors and Legislators of the Fifteen Compacting States), 94 pp., printed. Atlantic States Marine Fisheries Commission, 22 West First St., Mount Vernon, New York, April 1957. This report seeks to condense the many activities of the Atlantic States Marine Fisheries Commission into a brief summary that will serve to some degree the varying purposes of the member state governments, their representatives on the Commission, the Congress of the United States, interested Federal and state officials, scientists and others interested in fishery management, and the general public. The Report on the State of the Commission describes the Commission's growth from 1941 to 1956; interstate and Federal-state relations; over-fishing problems; uniform laws; fishery management; progress in the development of catch statistics, biological and technological research, fisheries exploration, and fishery education; and progress with respect to particular species. This section also discusses future technological, biological, and legal problems; changes in Commission organization; activities of the striped bass, gray sea trout (weakfish), blue crab, and special study committees; and the 1956 Commission recommendations to Federal agencies. Reports from the North Atlantic, Middle Atlantic, Chesapeake Bay, and South Atlantic Sections include discussions of each of their particular problems and projects.

FILLETING:

"Maskinfiletering av Torsk" (Machine Filletting of Cod), by F. Borg, article, Norsk Fryserinæring, vol. 8, no. 2, January 1956, pp. 1-4, illus., printed in Norwegian. Fr. Nansens Plass 4 Vaer. 221-223, Oslo, Norway.

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FISH LADDERS:

Hydraulics of Box Culverts with Fish-Ladder Baffles, by Roy H. Shoemaker, Jr., Reprint no. 53, pp. 196-209, illus., printed. Oregon State College, Engineering Experiment Station, Corvallis, Ore., 1956.

FISH MEAL:

"Changes in Fat Extractability and Protein Digestibility in Fish Meal During Storage," by H. J. Almqvist, article, Journal of Agricultural and Food Chemistry, vol. 4, July 1956, pp. 638-639, printed. American Chemical Society, 1155 16th St., NW., Washington 6, D.C.

FISH OILS:

"Determination of Structure and Analysis of Highly Unsaturated and Saturated Acids of Fish Oils," by O. S. Privett, article, Annual Report of The Hormel Institute, 1955-56, pp. 59-61, printed. The Hormel Institute, Austin, Minn.

FISH PROCESSING AT SEA:

"Schiffbauliche Probleme der Fischverarbeitung auf See" (Shipbuilding Problems Concerning the Processing of Fish at Sea), by K. Oelschig, article, Schiffbautechnik, vol. 5, no. 7, July 1955, p. 212, printed in German. VEB Verlag Technik, Unter den Linden 12, Berlin, Germany.

FLORIDA:

Quarterly Report on Fisheries Research, March 1957, No. 57-11, 12 pp., processed. The Marine Laboratory, University of Miami, Coral Gables, Fla. A report to the Florida State Board of Conservation on fisheries research covering shrimp, spotted weakfish, tarpon, snook, gamefish, spearfishing, mullet, and sailfish. Despite the widespread use of sodium bisulfite in the shrimp industry, control of black spot continues to be a major research activity. Lower concentrations of sodium bisulfite, and use of ionol and other chemicals continue. Terramycin and dynactol were tested in connection with experiments to improve the freshness of shrimp landed. Little improvement in bacterial or other scores was shown using terramycin, but good preliminary results were evident from the dynactol tests.

FRANCE:

Bulletin Officiel d'Information du Conseil Supérieur de la Pêche (Official Information Bulletin of the High Council of Fisheries), No. 27, January-February-March 1957, 61 pp., illus., printed in French, 100 francs (29 U.S. cents). H. Siraudou, 6 place de la Visitation, Angers - C./C. Paris 4012-03, France.

GROUND FISH:

Groundfish: Fishing and Filleting--Information on the Domestic Industry, Production, Consumption, Foreign Trade, and Industries in Foreign Countries, 183 pp., processed. U. S. Tariff Commission, Washington 25, D. C., May 1957. Presents detailed factual information on groundfish fishing and filleting in the United States and in foreign countries. It supplies extensive information on United States groundfish fishing operations, including fishing areas, the sale of fish at dockside, employment and earnings of fishermen, financial experience of vessel owners, as well as

summary data on the recent government loan program that is designed to assist the domestic fishing industry. With regard to filleting operations, this publication gives information on production, prices and stocks, employment and wage rates, and on the recent financial experience of filleting plants. It also includes information on the consumption of groundfish fillets and discusses the effect of the consumption of fish sticks upon the total consumption of groundfish fillets in all forms. It reviews the foreign trade of the United States in groundfish fillets and includes information on foreign sources, the volume of imports, and the species imported. It reviews recent developments in the groundfish fillet industries of the principal foreign supplying countries--Canada, Iceland, and Norway; and it discusses the comparative quality of imported and domestic fillets.

IMPORTS:

United States Imports of Merchandise for Consumption (Commodity by Country of Origin), Calendar Year 1956, Report No. FT 110, 193 pp., processed, \$1. Bureau of the Census, U. S. Department of Commerce, Washington, D. C., May 1957. (For sale by the Superintendent of Documents, Washington 25, D. C.) The import statistics include government as well as non-government shipments of merchandise (including fish and shellfish and fishery byproducts) from foreign countries to the United States.

LAKE TROUT:

The Early Life History of the Lake Trout in Lake Superior, by Paul H. Eschmeyer, Miscellaneous Publication no. 10, 31 pp., illus., printed. Institute for Fisheries Research, Ann Arbor, Mich.

MAINE:

Fishways in Maine, by Laurence F. Decker, Pamphlet no. 5, 23 pp., illus., printed. Department of Inland Fisheries and Game, Information and Education Division, Augusta, Maine, 1956.

Shellfish and Marine Worm Laws, Report to 98th Legislature, Publication 98-3, 74 pp., printed. Legislative Research Committee, Augusta, Maine, 1957.

NORWAY:

Norges Fiskerier, 1954 (Fishery Statistics of Norway), Norges Offisielle Statistikk Series XI, no. 256, 106 pp., illus., printed in Norwegian with foreword, table of contents, and summary in English. Director of Fisheries of Norway, Bergen, Norway, 1957. A detailed statistical report on the fisheries of Norway with discussions of the number of fishermen, craft, processing plants, and gear; quantity and value of total landings; herring, sprat, cod, mackerel, tuna, dogfish, and capelin fisheries; fisheries in distant waters; and catch of small whales and sealing. Statistics are given on quantity, value, and average prices of all species of fish caught commercially. Some of the survey tables included in the preceding editions of this publication have been omitted in the present issue. For the most part these tables presented back-year statistics on the landings by counties. New tables have been added showing the landings with the various

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types of fishing gear by species or species groups, the vessels in some fisheries by length, and the landings in Møre and Romsdal and Finmark by months. Also contains a list of scientific and common names, in four different languages, of fish, crustaceans, mollusks, and other aquatic organisms in Norwegian waters; drawings of the principal species of fish, mollusks, and crustaceans; and drawings of the different types of fishing gear.

NUTRITION:

Essentials of an Adequate Diet (Facts for Nutrition Programs), Agriculture Information Bulletin No. 160, 21 pp., illus., printed, 15 cents, Agricultural Research Service, U.S. Department of Agriculture, Washington, D. C., November 1956. (For sale by the Superintendent of Documents, Government Printing Office, Washington 25, D. C.) This publication is designed as source material for nutritionists, extension workers, and others who are teaching the principles of good food selection. The food plan given here shows one way to choose foods wisely for good health by emphasizing foods that contribute a large share of the daily needs of certain key nutrients. The plan suggests a diet pattern that will provide for nutritional needs within the framework of food habits and food supplies of the United States. It also shows why the different foods and groups of foods (including fishery products) stressed in the daily food plan are important to a diet that fully meets recommended allowances and how the plan measures up in providing such a diet.

OREGON:

Special Interim Fisheries Committee Report, 1955-1957, 21 pp., printed. Legislative Assembly, Salem, Ore., 1957.

OYSTERS:

Recent Oyster Mortalities and a Method for Restoring the Fishery, by R. R. Logie, General Series Circular No. 28, 3 pp., illus., processed. Fisheries Research Board of Canada, Biological Station, St. Andrews, N. B., Canada, April 1957. Observations on oyster mortalities in the Maritime Provinces and method of rehabilitation.

Rehabilitation of Disease-Depleted Oyster Fisheries, by H. R. Found and R. R. Logie, General Series Circular No. 29, 2 pp., processed. Fisheries Research Board of Canada, Biological Station, St. Andrews, N. B., Canada, April 1957. Describes the epidemic disease of oysters in Prince Edward Island, New Brunswick, and Nova Scotia and the rehabilitation program.

PHILIPPINES:

The Philippine Journal of Fisheries, vol. 3, no. 2, July-December 1955, pp. 85-193, illus., printed. Department of Agriculture and Natural Resources, Manila, Philippines, 1956. Contains, among others, the following articles: "Availability of Calcium in Bagoong Alamang, Dried Alamang, Canned Bangos, Oyster Shell, and Balut," by Silvestre V. Bersamin, Olympia N. Gonzalez, and Jose I. Sulit; and "Commercial Trawling in the Philippines," by Porfirio R. Manacop.

PRESERVATION:

Canning and Freezing Oysters, Crab, Shrimp, and Fish, by Lena E. Sturges, Circular 151, 8 pp.,

printed, University of Florida, Agricultural Extension Service, Gainesville, Fla., 1956.

"Chemical Changes Induced by Irradiation of Beef, Pork, Chicken, and Fish," by A. L. Tapp, H. S. Groninger, and F. W. Knapp, article, Food Technology, vol. 10, no. 5, May 1956, p. 34, printed. The Garrard Press, 119-123 W. Park Ave., Champaign, Ill.

"Conservazione degli Alimenti Mediante Irradiazione" (Preservation of Food by Irradiation), by F. B. Thomas, article, ConsERVE e Derivati Agrumari, vol. 5, no. 13, April-June 1956, pp. 85-87, printed in Italian. ConsERVE e Derivati Agrumari, Via Archirafi 22, Palermo, Sicily.

"Experiments with Antibiotics and Antibacterial Substances in the Preservation of White Fish and Fillets," by J. M. Shewan, article, Modern Refrigeration, vol. 59, November 1956, pp. 423-425, printed. Refrigeration House, Victoria Road, Woking, Surrey, England.

The Freezing Preservation of Foods (Third Edition), Vol. I - Freezing of Fresh Foods, by Donald K. Tressler and Clifford F. Evers, 1,240 pp., illus., printed, postpaid, \$18 domestic and \$19 foreign. The Avis Publishing Co., Inc., Westport, Conn., 1957. In this, the first of two volumes in the third edition of their book on the freezing preservation of food, the authors have presented the general principles related to this use of refrigeration and then described specific applications for the principal fresh foods on our market. Among the subjects of special interest to the fishing industry are the two chapters on the preparation and freezing of fish and shellfish, totaling approximately 100 pages. The subject matter includes details on some catching methods, raw material quality evaluation, freezing procedures, mechanical fish dressing equipment, packaging materials, and the frozen characteristics of frozen fishery products. Other chapters that should prove a valuable reference source to the fishing industry include those on the principles of refrigeration, commoner types of freezing equipment and procedures, packaging materials and problems, proper cold storage operations, and the protection of frozen foods in the distribution channels. New emphasis is given to the important related subjects of plant sanitation, quality control (including mandatory and permission grade standards), nutritive values of frozen foods, and how to cook and serve them. The lay reader will find the presentation both interesting and informative. The 282 illustrations and 151 tables supplement the textual material for greater ease in understanding the rather technical aspects of portions of the book.

--Charles Buttle

"Nutritive Effects on Foods Sterilized by Ionizing Radiations," by Herman F. Kraybill, article, Nutrition Reviews, vol. 13, no. 7, July 1955, pp. 193-195, printed. Nutrition Foundation, Inc., Chrysler Bldg., New York 17, N. Y.

PROTEINS:

"Proteins Occurring in Fish and Shellfish," by E. Ranke, B. Ranke, and F. Bramstedt, article, Archiv für Fischereiwissenschaft, vol. 6, 1955,

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pp. 199-218, printed in German with summary in English. Gustav Wenzel & Sohn, Braunschweig, Germany.

REFRIGERATION:

"Brine Cooling of Fish Aboard a Fishing Vessel," by Joseph W. Slavin, article, Industrial Refrigeration, vol. 131, October 1956, pp. 30, 32, 34, printed, Nickerson & Collins Co., 435 No. Waller Ave., Chicago 44, Ill.

"Chemical Changes in Fish Actomyosin During Freezing and Storage," by Harry L. Seagran, article, Food Research, vol. 21, September-October 1956, pp. 505-509, printed. The Garrard Press, Div. of Twin City Printing Co., 119-123 West Park Ave., Champaign, Ill.

Directory of Public Refrigerated Warehouses, 1957

(Perishable Food Industry's Guide), 148 pp., illus., printed. National Association of Refrigerated Warehouses, Tower Bldg., Washington 5, D. C. Contains complete up-to-date listings of the organization, services, and facilities of all NARW member companies (specializing in the safe storage of perishable commodities requiring freezer or cooler service) operating throughout the United States, its possessions, and various foreign countries.

SALT CONTENT:

Determination of the Salt Content of Fish (A Simple Apparatus and Procedure), by P. L. Hoogland and H. C. Freeman, New Series Circular No. 4, 11 pp., illus., processed. Fisheries Research Board of Canada, Technological Station, Halifax, Nova Scotia, April 1957. Describes a new method of determining the salt content of fish. According to the authors, very accurate results are obtained even by inexperienced technicians, and the potentiometric method and apparatus are recommended for routine use. A diagram and list of the parts necessary for the construction of the equipment and apparatus are included as well as the procedure and the results of the salt determinations.

SARDINES:

"Brisling and Sild Sardine Canning at Whitstable," article, Food Trade Review, vol. 26, no. 4, April 1956, pp. 10-13, illus., printed. Food Trade Review, 7 Garrick St., London W.C.2, England.

SHRIMP:

"Factors Influencing the Sporadic Development of Discoloration in Canned Wet Pack Shrimp," by

R. G. Landgraf, Jr., article, Food Technology, vol. 10, December 1956, pp. 607-610, printed. The Garrard Press, 119-123 W. Park Ave., Champaign, Ill.

SPOILAGE:

"Report on Chemical Indices of Decomposition in Fish (Histamine)," by David W. Williams, article, Journal of the Association of Official Agricultural Chemists, vol. 39, August 15, 1956, pp. 609-611, printed. Association of Official Agricultural Chemists, Inc., Box 540, Benjamin Franklin Station, Washington 4, D. C.

STEELHEAD TROUT:

Columbia River Steelhead; Abstract, 14 pp., illus., printed. Oregon Fish Commission, Portland, Ore., 1957.

TEXAS:

Studies on Marine Fishes of Texas, by Gordon Gunter, Publications of the Institute of Marine Science, vol. 1, no. 1, May 1945, 190 pp., illus., printed, \$1.25. University Publications, The University of Texas, Austin 12, Texas.

TUNA:

"Note on Honeycombing in Decomposed Tuna," by Fred Hillig, article, Journal of the Association of Official Agricultural Chemists, vol. 39, November 15, 1956, pp. 1015-1016, printed. Association of Official Agricultural Chemists, Inc., Box 540, Benjamin Franklin Station, Washington 4, D. C.

UNITED KINGDOM:

Report on the Fisheries of Scotland, 1956, Scottish Home Department, Cmnd. 146, 72 pp., printed, 3s. 6d. (48 U.S. cents). Her Majesty's Stationery Office, Edinburgh, Scotland, April 1957. A report of Scotland's fisheries, with statistical data for the year 1956. Contains total production figures by species and by port (both comparative and historical), and information on the number of boats, personnel, and methods of capture. Production and value of lobsters, crabs, mussels, oysters, and scallops, and fishery byproducts are also included. Sections are also devoted to discussions of the herring, white fish, and salmon fisheries, marine fisheries law enforcement, scientific investigations, and construction and improvement of harbors.

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