



Recent publications of interest to the commercial fishing industry are listed below.

FISH AND WILDLIFE SERVICE PUBLICATIONS

THESE PUBLICATIONS ARE AVAILABLE FREE FROM THE DIVISION OF INFORMATION, FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR, WASHINGTON 25, D. C. TYPES OF PUBLICATIONS ARE DESIGNATED AS FOLLOWS:

- CFS - CURRENT FISHERY STATISTICS OF THE UNITED STATES AND ALASKA.
 FL - FISHERY LEAFLETS.
 SEP.- SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.

Number	Title
CFS-488 (Revised)	- Pacific Coast Fisheries, 1947 Annual Summary, 6 p.
CFS-523	- Frozen Fish Report, February 1950, 10 p.
CFS-525	- Middle Atlantic Fisheries, 1947 Annual Summary, 6 p.
CFS-526	- Maine Landings, December 1949, 4 p.
CFS-527	- Fish Meal and Oil, January 1950, 2 p.
CFS-528	- Texas Landings, January 1950, 4 p.
CFS-529	- Frozen Fish Report, March 1950, 10 p.
CFS-531	- Texas Landings, February 1950, 4 p.
CFS-533	- Massachusetts Landings, October 1949, 14 p.
CFS-534	- New England Fisheries, 1947 Annual Summary, 6 p.
CFS-439 (Revised)	- Packaged Fish, 1947 Annual Summary, 4 p.
FL-355	- The Trouts of North America, 13 p.
FL-361	- S.S. Pacific Explorer, Part V - 1948 Operations in the North Pacific and Bering Sea, 161 p.
FL-362	- Information Sources for Students of Commercial Fisheries, 20 p.
Sep. 246	- The Fish and Wildlife Service--Ten Years of Progress
Sep. 247	- A New Fishery for Grooved Shrimp in Southern Florida
Sep. 248	- Vitamin A in 155 Grayfish Livers

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An Investigation of Oyster Producing Areas in Louisiana and Mississippi Damaged by Flood Waters in 1945, by Philip A. Butler, Special Scientific Report: Fisheries No. 8, 38 p., processed, December 1949. Limited distribution. This report discusses the desirability and methods for the rehabilitation, replanting, and maintenance of the oyster beds in Louisiana and Mississippi damaged by flood waters. The major sections of the report describe the scope of the Fish and Wildlife Service survey, equipment and methods used, laboratory and field data and their interpretation, rehabilitation of oyster reefs, and suggestions for future work. Un-

der laboratory and field data and their interpretation, the following subjects are covered: condition of oyster reefs in May 1949; growth; mortality; oyster quality; parasites and fouling organisms; turbidity; hydrogen ion concentration; temperature; salinity; and pertinent conclusions which may be derived from the data collected for each of the areas surveyed.

Possibilities for Oyster Culture in Puerto Rico and the Virgin Islands, by Walter A. Chipman and Paul E. Thompson, Special Scientific Report: Fisheries 9, 19 p., processed, January 1950. Limited Distribution. The Govern-

ments of Puerto Rico and the Virgin Islands requested advice and assistance of the Fish and Wildlife Service in a study of their respective oyster resources and of possibilities for the development of an oyster industry through cultivation. This report covers the survey made in March-April 1949 by the authors, together with the recommendations made to the officials of the two governments. Included is a discussion of the survey of areas in Puerto Rico and the Virgin Islands; and discussions and recommendations regarding oysters of Puerto Rico

and the Virgin Islands, conditions affecting oyster production, and possibilities of oyster culture. In their conclusion, the authors state that introduction of a new species of oyster rather than improvement in the native oyster now present seems to be the best solution for the development of any oyster industry in Puerto Rico and the Virgin Islands. Although the magnitude of the industry could never be large, it would be adequate to meet the needs of the market in these islands.

ARTICLES BY FISH AND WILDLIFE SERVICE AUTHORS IN OTHER PUBLICATIONS

"Conditioning *V. Mercenaria* for Spawning in Winter and Breeding its Larvae in the Laboratory," by Victor L. Loosanoff and Harry C. Davis, The Biological Bulletin, February 1950, vol. 98, no. 1, pp. 60-5, illus. The Biological Bulletin, Marine Biological Laboratory, Woods Hole,

Mass., \$1.75 per issue. Some simple principles and rules are given in this article on how to obtain mature sperm and eggs of clams (*V. mercenaria* and several other species) on almost a year-round basis, and how the larvae can be grown to the setting stage even in the middle of winter.

MISCELLANEOUS PUBLICATIONS

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

Annual Report of the Fisheries Department, Federation of Malaya and Singapore for the Year 1948, by D. W. Le Mare, 72 p., printed. For sale by Government Publications Bureau, General Post Office, Fullerton Building, Singapore, 1949. Reviews the status of the fisheries during 1948. Information by districts is given, in addition to data on number of boats operating, number of fishermen, number and type of gear used, total landings, average market prices, and imports. Among the departmental developments discussed are carp culture and supply of fry, traditional sea-transportation of fry, postwar transportation of carp fry by air, fish fry imported by air from Hongkong, and fish cultivation.

Annual Report on the Fisheries Branch (Colony of Mauritius) for the year 1948, 10 p., printed, 15 cents. J. Eliel Felix, Government Printer, Port Louis, Mauritius, May 1949. Discusses systematic studies of fish, large net fishing, cooperatives, offshore and inshore fishing, production (together with actual data for 1948 and comparative information), and marketing and distribution of fish for the Colony of Mauritius.

"B. C. Salmon Spawning Report--1949" and "Lower Fraser District Has Successful

Season," articles, Trade News. February 1950, vol. 2, no. 8, pp. 7-12, illus., processed. Department of Fisheries, Ottawa, Canada. The first article discusses the 1949 British Columbia salmon run, spawning, and escapement. It states that escapement of salmon to spawning grounds was good generally throughout British Columbia in 1949. The second article reports on the 1949 fishing season of the Lower Fraser Inspectorial District, which includes the Fraser River and areas south to Boundary Bay. This article concludes that the 1949 fishing season of the Lower Fraser Inspectorial District was a successful one in the general opinion of the fishermen.

Family Fare Food Management and Recipes, Home and Garden Bulletin No. 1, 96 p., printed, 25 cents. Bureau of Human Nutrition and Home Economics, Agricultural Research Administration, U. S. Department of Agriculture, Washington, D. C., February 1950. (For sale by Superintendent of Documents, Washington 25, D. C.) Offers suggestions and other helps with reference to serving enjoyable meals, keeping the family well nourished, practicing thrift when needed, and saving time and energy whenever possible. Fish is specifically covered under buying hints and main dishes, and is mentioned in connection with meat and poultry

in other sections of the booklet. The nutrition section aims to bring the home-maker up-to-date quickly and to show the importance of food for health. The food planning section shows an orderly way to provide meals that contain the vitamins and other nutrients in the quantities which different individuals need. The cooking principles and recipes are modern. The sections dealing with fish were made up with the cooperation of the Fish and Wildlife Service.

"Fisheries Exports in 1949 (Canada)," article, Trade News, February 1950, vol. 2, no. 8, pp. 15-7, processed. Department of Fisheries, Ottawa, Canada. An analysis of the Canadian exports of fisheries products. Gives some information on the export market situation.

"Fishing in Arabia," by Donald S. Erdman, article, The Scientific Monthly, January 1950, vol. LXX, no. 1, pp. 58-65, illus., printed, single copies of magazine 75 cents. American Association for the Advancement of Science, 1515 Massachusetts Ave., N. W., Washington 5, D. C. The author, scientific aide in the Division of Fishes, U. S. National Museum, was a guest of an oil company at Dhahran, Saudi Arabia, from March to August 1948 and assisted in a local fishery survey conducted to supplement the food of company employees. This article describes this survey, the types of fish caught, methods of capture, and other information for the Balrein Island area in the Persian Gulf, around Jidda on the Red Sea, and at the interior oasis of Al Hasa.

Forty-Third Annual Report of the South Carolina State Board of Fisheries 1948-49 to the Governor and General Assembly, 9 p., printed. State Board of Fisheries, 91 Broad Street, Charleston, S. C., 1949. This annual report on the fisheries of South Carolina is divided into four sections: Section I, Advisory Committee; Section II, Law Enforcement; Section III, Fisheries; and Section IV, Bears Bluff Laboratories. The section on fisheries discusses shrimp, oysters, shad, menhaden, crabs, clams, exploratory research, and sport fishing. No over-all fisheries statistics are given.

Het bederf van dierlijke voedingsmiddelen bij lage temperaturen (Deterioration of Animal Foodstuffs at Low Temperatures), by C.J.H. van den Broek, 44 p., illus., printed in German, reprinted from Chemisch Weekblad, Vol. 45 (1949), pp. 777-84 and 813-20. Centraal Instituut voor Voedingsonderzoek T. N. O., Utrecht. This publication is divided into two parts. Part I (Development of Our Knowledge of the Deterioration Processes) reports that although quick-freezing can preserve the natural fresh-

ness of perishable foodstuffs in a better way than any other means of preservation, it has to combat its own characteristic deterioration processes. To describe the peculiar character of these processes, so little known outside the freezing industry, a historical survey is given of the earlier scientific work in this field. It is shown how after some misconceptions, a few of which still prevail in practice, research in 1935 led to an understanding of the complex nature of this kind of deterioration. Part II (Recent Research on the Preservation by Cold) is a survey of modern investigations on the deterioration of animal foods in freezing, including meat, poultry, and fish. In fish, the extreme liability to spoilage at ordinary temperatures led to an increased appreciation of the influence of freshness at the moment of freezing on the quality of the frozen product, according to the author. While in lean fish, "drip" and the denaturation of proteins are most intensively studied, in fatty fish these phenomena are overshadowed by the deterioration of the fat. The possibility of preventing "drip" by a treatment with salt solutions led to an investigation into the action of sodium chloride and the pH on muscle proteins. The various fishery products of invertebrate origin, recently added to the list of frozen foods, offer interesting aspects for a comparison of their forms of deterioration with those of the other foodstuffs mentioned. Both parts contain an extensive bibliography.

"The Import Market for Fish in Switzerland," article, Trade News, February 1950, vol. 2, no. 8, pp. 24-6, processed. Department of Fisheries, Ottawa, Canada. Contains an analysis of Switzerland's 1949 imports of fishery products, and includes comparative data for 1948. Reports on types of fishery products imported and countries from which they were shipped. Of greatest interest to United States exporters are the pilchards and herring in tomato sauce and canned salmon in containers weighing less than 6½ pounds. The United States, which was the largest supplier of these commodities in both 1948 and 1949, increased considerably the shipments of these items to Switzerland in 1949. Canada was the second largest supplier of canned pilchards and salmon in 1949.

Income of Fishermen on Boston Fish Pier Fleet, 1948, by Kermit Mohn, LS 50-1116, 13 p., processed. Bureau of Labor Statistics, U. S. Department of Labor, Washington, D. C., 1949. A study measuring the earnings of the fishermen of the Boston Fish Pier Fleet during 1948 made by the Bureau of Labor Statistics. This report discusses the methods used for and gives a summarization of the data obtained from this study. The

data is based on records of the Atlantic Fishermen's Union, supplemented by the records of individual vessel owners. The entire study pertains to the activities of only 51 vessels. Included are tables giving the distribution of fishermen in the Boston Fish Pier Fleet by annual earnings and occupation, and by annual earnings and number of days worked; and a table each for deckhands, cooks, captains, mates, chief engineers, and second engineers showing the distribution of each of these categories by annual earnings and number of days worked.

International Organization in which the United States Participates, 1949, Publication 3655, Series I-8, 343 p., printed, 65 cents. Department of State, Washington, D. C., February 1950. (For sale by the Superintendent of Documents, Washington, D. C.) Contains 66 summaries outlining the character and general purposes of multilateral international organizations in which the United States was a participant on June 30, 1949. The summaries are grouped in the following classes: General (covering a wide field of responsibilities); Agriculture and Fisheries; Commodity; Economic and Financial; Educational; Scientific and Cultural; Occupation and Peace-making; Political and Legal; Regional; Social and Health; and Transport and Communications. Information is included regarding the origin and development of each organization; its membership, purposes, powers, functions, structure and finances; relations with the United States; relations with other international organizations; and citations to pertinent basic texts and publications.

Italian Importers of U. S. Commodities, 176 p., printed. Prepared by the Trade Division, ECA Special Mission to Italy, Rome, Italy, 1950. Available from the Economic Cooperation Administration, Washington 25, D. C. Lists the names and addresses of Italian importers that have imported merchandise (including fishery products) from the United States between April 1, 1948, and July 1, 1949. Firms are listed by the type of commodity imported according to the Department of Commerce schedule "B" statistical classification. A number of firms that imported fish and marine oils and edible fishery products are included.

Japanese Whaling Industry Prior to 1946, by William M. Terry, Report No. 126, 47 p., processed. Natural Resources Section, Supreme Commander for the Allied Powers, Tokyo, March 1950. (Reports may be purchased in photostat or microfilm from the Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C.) A report of a survey of available data on the history of systematic Japanese whaling operations prior to

and during World War II. Much of the data used in this report has been drawn from records prepared by the whaling companies and the Japan Whaling Industry Fisheries Association (Nippon Hogeigyō Suisan Kumiai), and from available reports of government whaling inspectors who accompanied expeditions to the Antarctic. Includes information and data on pelagic whaling in the Antarctic and the Bering Sea and Arctic Ocean; and coastal and colonial whaling. Discusses the organization and regulation of the industry and lists the major whaling companies.

"The Lamprey Fishery at Willamette Falls, Oregon," article, Fish Commission Research Briefs, December 1949, vol. 2, no. 2, pp. 23-27, illus., printed, free. Fish Commission of Oregon, Portland, Oregon. Describes the Pacific or three-toothed lamprey fishery in the Willamette River and the commercial utilization of this vertebrate. A short discussion of the life history of the Pacific lamprey (Entosphenus tridentatus) is also given. Taking the lamprey on a commercial scale was first attempted in 1941, and the results of the first year's fishery were sufficiently successful to encourage further development, and consequently it has been continued annually, according to this article. Production has varied from a low of 72,708 in 1944 to a high of 397,260 pounds in 1946. The 1949 production was 114,685 pounds. A system of traps and flumes has been developed to capture the lamprey. The earliest known use of lamprey from this region was for food by the Indians. Present-day anglers use them for bait in sturgeon fishing, and a limited quantity are used by fur trappers. Lamprey taken commercially on the Willamette River are transported to a reduction plant at Warrenton, Oregon, where the vitamin oil is extracted; the residual material is manufactured into protein food for livestock and poultry or fertilizer (fish meal).

Marketing Frozen Foods--Facilities and Methods, by J. Stanford Larson, James A. Mixon, E. Clinton Stokes, 175 p., illus., processed, free. Marketing Facilities Branch, Production and Marketing Administration, U. S. Department of Agriculture, Washington, D. C., June 1949. This study of the frozen-food industry was made, to find out the kind of facilities being used for the handling of frozen foods and to discover some of the inadequacies of such facilities, and what types of facilities and methods of handling seem to be most efficient, with consideration being given each step through the marketing channel. This publication gives the conclusions arrived at by the

authors as to efficient and inefficient facilities and handling methods. Many problems relating to frozen-food marketing facilities have been uncovered by this study, and these should be investigated more closely at a later date, state the authors. In addition, this publication covers the following subjects: Frozen foods—a new development in marketing perishables; the processor's role in marketing frozen foods (includes frozen fish products); transportation facilities; warehouse facilities; the wholesale distributor; delivery facilities and methods; retail facilities; institutional and industrial facilities; locker plants; and home storage facilities. Although fishery products are mentioned only very briefly in one section, the general contents of this publication will be of value to those interested in the production, marketing, and distribution of frozen fishery products.

"The Mossbunker—An Atlantic Schmoof?" by James R. Westman, article, The New York State Conservationist, February–March 1950, vol. 4, no. 4, pp. 28–29, illus., printed, Subscription \$1.00 per year. New York State Conservation Department, Albany, N. Y. Discusses the menhaden fishery in New York State, giving some data on seasons and the species other than menhaden captured when fishing for menhaden. The Bureau of Marine Fisheries reports that during the past six years repeated examinations of menhaden netting operations in New York State waters have established the fact that the relative number of food fish caught was even less than previously reported in other studies.

"The Preparation of Marinated Herring," article, Trade News, February 1950, vol. 2, no. 8, pp. 5–6, processed. Department of Fisheries, Ottawa, Canada. Typical methods for the preliminary curing of marinated herring and the final bottling or packing in spiced sauces and onions are given in this article. Formulas for various types of pickling (including a spice mixture, preparation of onions to be used with the herring, and a sauce) are given.

Provincial Department of Fisheries Report with Appendices (For the Year ended December 31, 1948), 112 p., printed. Department of Fisheries, Victoria, British Columbia, Canada, 1950. The first part of this report contains data on British Columbia's 1948 pack of canned salmon, pilchard, herring, and shellfish; halibut production; fish oil and meal production; net-fishing in non-tidal waters; salmon-spawning grounds; and herring and shellfish investigations. Also the value of the Canadian fisheries and the standing of all Provinces for 1947, are given. The second part of the

report consists of the following papers: Contributions to the Life-History of the Sockeye Salmon; Results of the West Coast of Vancouver Island Herring Investigation, 1948–49; Biologist's Report; Report of International Fisheries Commission, 1948; Report on Investigations of the International Pacific Salmon Fisheries Commission for 1948; Salmon-Spawning Report, British Columbia, 1948; and a series of tables giving additional data on the British Columbia fisheries.

Report of the Newfoundland Fisheries Board and General Review of the Fisheries for the Year 1948 with Statistical Survey, 53 p., printed. Department of Fisheries, Ottawa, Canada, 1949. Reviews Newfoundland's salted and frozen cod industry; the herring, lobster, salmon, halibut, smelt, and seal fisheries; and the fish meal, marine oils, and whaling industries. Included in this report are detailed statistics on all phases of Newfoundland's fisheries for 1948 and comparative data for 1947.

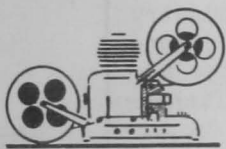
Second Annual Report of the Board of Control of the Fishing Industry Research Institute, 15 p., processed. Fishing Industry Research Institute, P. O. Box 1233, Capetown, Union of South Africa. Discusses the organization of the Institute and reports on the projects and services undertaken by the Institute. The Institute has conducted research in connection with the manufacture and use of tomato puree for fish canning; crawfish canning, freezing, and offal drying; freezing and canning of snoek; canning of pilchards; and salting and drying of stockfish. Some preliminary tests have been made also in regard to the chilling of stockfish. Also included is a list of publications issued by the Institute.

Selling to the Government (Businessmen's Guide in Dealing with Federal Buying Agencies), 64 p., printed, 50 cents. Department of Manufacture, Chamber of Commerce of the United States, Washington 6, D. C., 1950. Advice on how to do business with the United States Government is the purpose of this booklet. There is presented in Part I a brief summary, giving the names and addresses, of the outstanding military and civilian central supply organizations without detailed discussion of their field purchasing activities. This is followed, in Part II, by a concise enumeration of principal government and private publications and similar sources of comprehensive information about the operations of these and other procurement agencies. Part III outlines some typical procurement procedures from the point of view of the businessman, and Part IV describes in some detail the procurement organization of various government agen-

cies, including their field operations. Finally, appendixes list important sources of information on all phases of the procurement operations, with special emphasis on those which will be directly useful in becoming better able to compete for government business. Although fishery products are not specifically mentioned, this booklet is of value to anyone doing or hoping to do business with the Government.

ned tuna trends. This report gives imports of fresh or frozen tuna, canned tuna and bonito, and exports of canned tuna from January through November 1949, with comparative information for 1948, together with country of origin and destination. In its conclusion and outlook, the report states that there is little doubt that the United States will remain the principal world market for tuna for some time. Imports of both fresh and frozen tuna (the raw material of the canneries) and of canned tuna likely will be maintained at or above present levels. Prices of canned tuna have declined substantially from the peak reached in 1948. This decline may have some effect on United States imports of canned tuna, since the declining profits will tend to close high cost plants and lessen sales efforts abroad.

United States Imports of Fresh, Frozen and Canned Tuna, Bonito and Yellowtail, and Factors Affecting Current Trade, by Maurice W. Wallar, World Trade in Commodities--Supplement, Foods and Related Agricultural Products, vol. VIII, part 6-7-8, sup. no. 1, January 1950, 6 p., processed, 5 cents. U. S. Department of Commerce, Washington, D. C. Briefly discusses can-



MOTION PICTURE



The following motion picture is available only from the source given in listing.

ECA Means Business, 16 mm. black and white, sound, 15 minutes. Shows the Marshall Plan in operation and how businessmen may participate in the program. Produced to explain ECA's small business program and demonstrate field counseling in action, it also depicts the basic procedures involved in doing business under the European Recovery Program. Available for showings before business and related groups, according to ECA's Office of Small Business. Prints of the film may be obtained at any of the field offices of the U. S. Department of Commerce.



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