



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.
 FL - FISHERY LEAFLETS.
 SL - STATISTICAL SECTION LISTS OF DEALERS IN AND PRODUCERS OF FISHERY PRODUCTS AND BYPRODUCTS.
 SEP.- SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.

Number	Title
CFS-1060	- Florida Landings, August 1954, 3 pp.
CFS-1069	- Fish Meal and Oil, October 1954, 2 pp.
CFS-1074	- Rhode Island Landings, July 1954, 3 pp.
CFS-1075	- Florida Landings, Sept. 1954, 6 pp.
CFS-1076	- New York Landings, Oct. 1954, 4 pp.
CFS-1077	- Frozen Fish Report, November 1954, 8 pp.
CFS-1078	- Maine Landings, October 1954, 4 pp.
CFS-1079	- Fish Meal and Oil, November 1954, 2 pp.
CFS-1080	- Florida Landings, October 1954, 6 pp.
CFS-1081	- Florida Landings, November 1954, 6 pp.
CFS-1082	- New Jersey Landings, October 1954, 2 pp.
CFS-1084	- Alabama Landings, October 1954, 2 pp.
CFS-1086	- New Jersey Landings, November 1954, 2 pp.
CFS-1089	- Maine Landings, November 1954, 4 pp.
FL -336w	- Quarterly Outlook for Marketing Fishery Products, Jan.-March 1955, 32 pp.
FL -421	- United States Foreign Trade in Edible Fishery Products, 1949-1953, 44 pp.
Sep. No. 392	- Use of an Electrical and Guiding Device in Experiments with a "Fish Pump."
Sep. No. 393	- Vitamin Content of Fishery Byproducts. Part 2 - Vitamin B ₁₂ in Pacific Sardine (<i>Sardinops caerulea</i>) Organs and Riboflavin, Nicotinic Acid, and Vitamin B ₁₂ in Albacore Tuna (<i>Germonalunga</i>) Organs.
Sep. No. 394	- Keeping Quality of Chilled Dungeness Crab Meat in Hermetically-Sealed Metal Containers.
	- Study of Pharmaceutical and Other Industrial Products from Salmon Eggs.
	- Metabolism Trial to Determine Comparative Nutritive Value of Fish and Meat.
	- Interim Federal Specifications for Shrimp Issued.

THE FOLLOWING SERVICE PUBLICATION IS AVAILABLE ONLY FROM THE SPECIFIC OFFICE MENTIONED:

Gulf States Production of Fishery Products for Selected Areas, 1953, by S. C. Denham, 40 pp., processed, December 1954. (Available free from the Market News Service, U. S. Fish and Wildlife Service, 314 Custom House, New Orleans 16, La.) This report consists of two parts. In Part I the author discusses the trends and conditions in the Gulf Coast Fisheries in 1953 and gives a resume of the individual fisheries. For the shrimp fishery a detailed account is given of the general conditions, total landings, composition of the landings by species, data on cold-storage freezings and holdings, ex-vessel prices at certain areas in Louisiana and Texas, and the canned shrimp pack. Production and market conditions for the oyster, blue crab, and finfish fisheries are included in the summary, as well as the significant developments in these fisheries. Part II contains statistical tables on total landings by areas and species by months; by individual area and species by months; crab meat production by areas and months; fishery imports at New Orleans and Morgan City, La., and at Port Isabel and Brownsville, Tex.; monthly LCL express shipments from New Orleans by months and by destination; weekly canned oyster and shrimp packs; and a summary table of Gulf shrimp landings for selected areas. Tables showing the monthly wholesale price range of fishery products sold on the New Orleans French Market, fishery products market classifications in the Gulf area, and the monthly fishery production index for selected Gulf States areas are also included. These are the areas covered by the report: Apalachicola, Fla.; Mobile and Bayou LaBatre, Ala.; Pascagoula and Biloxi, Miss.; New Orleans and Lower Mississippi River, Golden Meadow, Houma, Chauvin, Dulac, Morgan City, Berwick, and Patterson, La.; Galveston, Freeport, Port Lavaca, Palacios, Aransas Pass, Rockport, Port Isabel, and Brownsville, Tex.

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.

(British Columbia) Provincial Department of Fisheries Report (with appendices) for the Year

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Ended December 31st, 1953, 110 pp., illus., printed. Provincial Department of Fisheries, Victoria, B. C., 1953. The first part of this report is devoted to an analysis of British Columbia's 1953 production and value of fishery products, the canned salmon pack, and a review of the salmon canning industry. Also discussed are the other canning industries (pilchard, herring, tuna, and shellfish), the production of processed fish (mild-cured salmon, dry-salted salmon, dry-salted herring, and pickled herring), the halibut fishery, fish oil and fish meal, net fishing in nontidal waters, value of Canadian fisheries and the standing of the provinces for 1952, and species and value of fish caught in British Columbia. A report on the herring investigation and the 1953 report of the biologist on the oyster and clam investigations are included. The second section consists of these articles: "Contributions to the Life-History of the Sockeye Salmon (No. 39), by D. R. Foskett;" "Results of Investigation of the Herring Populations on the West Coast and Lower East Coast of Vancouver Island in 1953-54," by F. H. C. Taylor and D. N. Outram; "Report of the International Pacific Halibut Commission;" "Report of the International Pacific Salmon Fisheries Commission for 1953;" "Salmon-Spawning Report, British Columbia, 1953." The report concludes with detailed statistical tables on the British Columbia fisheries.

Bulletin of the Faculty of Fisheries, Hokkaido University, vol. 5, no. 1, 122 pp., illus., printed in Japanese with summaries in English. Hakodate, Japan, May 1954. Contains among others the following scientific papers: "A Report on Prevention of Fishing Gear from Being Washed Away by Means of Radar Watching;" "Studies on the fixed nets in Funka Bay. III--on the dimensions of principal parts;" "Studies on the Fishery of Mackerel by Purse Seines in the Sea near Hokkaido. II--Construction and operation of the purse seines and the aguri nets (mackerel ring nets);" "Studies on Components in Dry Distillation Products in Some Fish-Scrap (1);" "Studies on Mechanisms of Manufacturing Algin. Part V--Amended theory on mechanisms of manufacturing algin;" "Studies on the Coli-Group Distributed in Marine Foods. II--Enterococci in squid (*Ommastrephes sloani Pacificus*) caught in the sea near Hakodate;" "Fatty Acid Constituents of Squid Oil;" and "Studies on the Nutritive Value and Absorption Coefficient of 'Surme-Ika' (*Ommastrephes sloani Pacificus*) Protein."

Bulletin of the Faculty of Fisheries, Hokkaido University, vol. 5, no. 2, 98 pp., illus., printed in Japanese with summaries in English. Hakodate, Japan, August 1954. Contains among others the following scientific papers: "Fundamental Studies on Spherical Glass Floats for Fishing Nets. (3) On the point at which floats are broken by external water pressure;" "Chemical Studies on Marine Algae. IX--Histidine, arginine, and lysine contents in various species of marine algae;" "Studies on the Mechanism of Nitrogen Assimilation in Marine Algae. IV--On the optimum temperature of the nitrate reductase in some species of marine algae;" "Studies on the

Mechanism of Nitrogen Assimilation in Marine Algae. V--On the hydrogen donor of nitrate reductase;" "Bacteriological studies on Canned Crab. III--Bacteriological studies on the swelling of canned crab (3);" "Bacteriological Studies on Canned Crab. II--Bacteriological studies on the swelling of canned crab (2);" "Bacteriological Studies on Canned Crab. IV--The relation between the degree of sterilization and the concentration of the bacterial spore suspension which was isolated from 'swelled canned crab';" "Studies on the Manufacture of Canned Mackerel. Part VII--The relation between the freshness degree of raw mackerel meat and the quality of canned boiled mackerel;" and "The Relation Between the Freshness Degree of Raw Saury (*Cololabis saira* 'Breveoort') and the Qualities of Canned Boiled Saury and of Canned Tomato-Sauced Saury."

Bulletin of the Faculty of Fisheries, Hokkaido University, vol. 5, no. 3, 89 pp., illus., printed in Japanese with summaries in English. Hakodate, Japan, November 1954. Contains among others the following scientific papers: "Chemical Studies on Atka Mackerel Meat;" "Studies on the Decomposition of Atka Mackerel (*Pleuragrammus ozonus*, 'Hokke' in Japanese) Meat. I--On the velocity of bacterial decomposition of Atka mackerel meat and the limit of freshness of the meat as the raw material;" "Studies on Bacterial Contamination and Disinfection in Canneries. I--Bacterial contamination in canneries." "Studies on Bacterial Contamination and Disinfection in Canneries. II--Disinfective effect of sodium hypochlorite in canneries;" and "Estimation of the Radius of Gyration of Fishing Boats."

Bulletin of Hokkaido Regional Fisheries Research Laboratory, No. 11, December 1954, 154 pp., illus., printed in Japanese with summaries in English. Hokkaido Regional Fisheries Research Laboratory, Yoichi, Hokkaido, Japan. Contains a number of papers, including the following: "Marking Experiments of Young Herring (*Clupea pallasii*), 1954," by Heihachi Kondo and Nobuyuki Nakayama; "Studies on Freshness Determination of Fish Meat by Resazurin Test," by Tsutomu Uno and Toshio Tokunaga; "Studies on the Preservation of Fish-Cakes--III. Effect of the survived microorganisms on the spoilage of fish-cake," by Motonobu Yokoseki, Hiroshi Oshima, and Masatoki Sasajima; "Studies of Manufacturing Process for the Oil from Fish Liver," by Katsutoshi Miwa, Toru Iwadare, and Shigeshi Komaki; "Preliminary Report on the Quality of Oil Obtained by Autolysis of Arrow-toothed Halibut (*Atheresthes evermanni* JORDAN et STARKS), by Shigeshi Komaki, Toru Iwadare, and Katsutoshi Mima; "Biochemical Studies on squid--II. On the protein components of its meat (2)," by Kunitsugu Kitabayashi.

(Canada) Fisheries Statistics of Canada, 1953 (Quebec), 8 pp., printed, French and English, 25 Canadian cents. Dominion Bureau of Statistics, Ottawa, Canada, 1954. Consists of tables giving the production and landed and marketed values of the principal species of fish and shellfish landed in Quebec in 1951-53; quantity and value of manufactured fishery products for 1952-53; vessels used in the sea fisheries,

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capital equipment in the primary fisheries operations; and the number of persons engaged in the fisheries.

(Canada) Journal of the Fisheries Research Board of Canada, vol. XII, no. 1, illus., printed, January 1955. Fisheries Research Board of Canada, Ottawa, Canada. Contains, among others, the following articles: "Distribution, Age and Growth of Eastern Pacific Albacore (*Thunnus alalunga* Gmelin)," by J. M. Partlo; "Histological Studies on Albacore (*Thunnus alalunga*) Gonads from the Eastern Pacific," by J. M. Partlo; "The Artificial Drying of Lightly Salted Codfish," by R. Legendre; "Electrophoretic Studies of Proteins Extractable from Postrigor Cod at Low Ionic Strength," by J. R. Dingle, D. E. Eagles, and J. M. Neelin; "Economic Factors in Catch Fluctuations," by H. Scott Gordon; "The Resistance to Salt Water Corrosion of Various Types of Metal Wire Used in the Tagging of Flatfish," by C. R. Forrester and K. S. Ketchen.

Chemical Nature of the Shark Fin Fiber, by Yasuhiko Tsuchiya and Tadasu Nomura, 11 pp., illus., printed in English. (Reprinted from the Tohoku Journal of Agricultural Research, vol. 4, no. 1, October 1953) Department of Fisheries, Faculty of Agriculture, Tohoku University, Sendai, Japan.

A Chemical Study on Jellied Meat of Swordfish, by Yasuhiko Tsuchiya and Yoshio Tatsukawa, 6 pp., illus., printed in English. (Reprinted from the Tohoku Journal of Agricultural Research, vol. 4, no. 3-4, March 1954.) Department of Fisheries, Faculty of Agriculture, Tohoku University, Sendai, Japan.

"An Expanding Norwegian Industry (The Herring Meal and Herring Oil Industry)," article, Norwegian Joint Stock Banks Financial Review, vol. 29, no. 3 (July) 1954, pp. 1-4, printed in English. Norwegian Bankers Bureau of Statistics and Information, Oslo, Norway. Presents a brief historical sketch of the development of the Norwegian herring meal and oil industry. This article is a resume of a Norwegian-language book (En industri av verdensformat; Utviklingen av sildolje-og sildemelindustrien i Norge) which was recently published by A. Garnæs' Boktrykkeri, Bergen.

Federal Aid in Fish and Wildlife Restoration (Annual Reports of the Dingell-Johnson and Pittman-Robertson Programs for the Fiscal Year Ending June 30, 1954), 108 pp., illus., printed. Published by the Wildlife Management Institute Wire Building, Washington 5, D. C., and the Sport Fishing Institute, Bond Building, Washington 5, D. C.

Fish Conservation Highlights of 1954, bulletin no. 38, 110 pp., illus., printed. Sport Fishing Institute, Bond Building, Washington 5, D. C., January 1955. Includes a discussion of the age-old problem, sports fishing vs. commercial fishing.

Fish Processing and Associated Industries of Møre og Romsdal County, by Lawrence M. Sommers,

26 pp., illus., printed. (Reprinted from Norsk Geografisk Tidsskrift, vol. XIII, no. 3-8, 1951-52, pp. 240-265.) Michigan State College, East Lansing, Michigan, 1953. The main body of this article concerns the importance of fish processing and associated industries to Norway's Møre og Romsdal County. A series of maps and explanations are presented of the distributional patterns of population, fishermen, and fishing vessels which are basic to the understanding of the location and significance of fish-processing industries in Møre og Romsdal. This article also discusses the fresh and frozen, salted, and smoked fish industries, the drying of klipfish, canning of fish, processing of herring oil and herring meal, and production of fish-liver oils, fish meal, guano, and glue.

The Fisherman's Handbook-1955, 512 pp., illus., printed, \$1.25. Fisherman Press Inc., Oxford, Ohio, 1955. This is a complete reference book for sport fishermen. It is well indexed for ready use which is an essential for a volume containing the mass of information found in this publication. Special sections are devoted to a complete treatment of boats, motors, reels, rods, lines, lures, description of fish, baits, methods of fishing, places, and charts. The handbook is very well illustrated and most fishermen will consider the glossary of terms a real find. There is also a description of the top-ranking fishing spots throughout the country, as well as information and charts on other fishing locations in each state. In summary, it is a book that will fit admirably into any sport fisherman's tackle box, and for the beginner it will give him something more to lean on than fisherman's luck. For the commercial fisherman who is using any type of gear similar to the Angler's equipment, or who is interested in description of various species of fish, this book might well serve as a handy reference.

--R. T. Whiteleather

The Fishes of the Tidewater Section of the Pamunkey River, Virginia, by Edward C. Raney and William H. Massmann (contribution no. 48 from the Virginia Fisheries Laboratory, Gloucester Point, Va.) 9 pp., illus., printed. (Reprinted from Journal of the Washington Academy of Sciences, vol. 43, no. 12, December 1953.)

"Fishing and Fish Culture in Brackish-Water Lagoons," by Umberto D'Ancona, article, FAO Fisheries Bulletin, vol. VII, no. 4 (October-December 1954), pp. 147-72, illus., printed. Food and Agriculture Organization of the United Nations, Rome, Italy.

Green Meat of Swordfish, by Yasuhiko Tsuchiya and Yoshio Tatsukawa, 5 pp., illus., printed in English. (Reprinted from the Tohoku Journal of Agricultural Research, vol. 4, no. 2, February 1954.) Department of Fisheries, Faculty of Agriculture, Tohoku University, Sendai, Japan.

International Commission for the Northwest Atlantic Fisheries Annual Proceedings, vol. 4 for the year 1953-54, 104 pp., illus., printed. International Commission for the Northwest

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Atlantic Fisheries, Halifax, N. S., Canada, 1954. This bulletin presents the administrative report of the Commission for the year ending June 30, 1954, including financial statements; a report to the Fourth Annual Meeting of the Commission, June 14-18, 1954; summaries of research during 1953 broken down by country, and a compilation of research reports by subareas; scientific papers specially prepared for the June 1954 Annual Meeting; and a list of scientists and laboratories engaged in the various branches of the Commission's work.

Marine Fishes in Fresh and Brackish Waters of Virginia Rivers, by William H. Massman (contribution no. 47 from the Virginia Fisheries Laboratory, Gloucester Point, Va.) 4 pp., illus., printed. (Reprinted from Ecology, vol. 35, no. 1, January 1954.)

(Colony of Mauritius) Annual Report of the Fisheries Branch, 1953, No. 21 of 1954, 34 pp., and graphs and appendices, processed. Fisheries Branch, Supplies Control Department, Colony of Mauritius. Contains a brief summary of the fisheries activities in Mauritius in 1953; tables showing the total catch by species, average catch per day, catch by area, and catch by type of gear. The appendices include a daily log of the Silver-lord on Nazareth Bank during 1952/53, and a list of the fishes of Mauritius.

A New Color Test for the Measurement of Freshness of Fish by Volatile Bases Estimation, by Yasuhiko Tsuchiya and Mitsu Kayama, 10 pp., printed in English. (Reprinted from the Tokyo Journal of Agricultural Research, vol. 5, no. 1, September 1954.) Department of Fisheries, Faculty of Agriculture, Tohoku University, Sendai, Japan.

Norwegian American Commerce, vol. 18, no. 1, 100 pp., January 1955. The Norwegian American Chamber of Commerce, Inc., 290 Madison Ave., New York 17, N. Y. This is a special issue titled "Presenting... Industries of Norway." Includes reviews of the important industries of Norway. Articles on fisheries industries cover: "Fisheries and Whaling," pp. 58-59, and "The Herring and Whaling Industries," pp. 60-63. These articles review briefly the more important fishing industries and include some of the latest statistical data available; and "Canning Industry," p. 65, gives a brief summary of the Norwegian sardine canning industry.

Relative Abundance of Young Fishes in Virginia Estuaries, by William H. Massmann (Contribution no. 46, Virginia Fisheries Laboratory, Gloucester Point, Va.), 11 pp., illus., printed. (Reprinted from Transactions of the Eighteenth North American Wildlife Conference, March 9, 10, and 11, 1953; published by the Wildlife Management Institute, Wire Building, Washington 5, D. C.)

Resources of South Carolina, Bulletin No. 22, 172 pp., illus., printed. State Development Board, Columbia, S. C., January 15, 1955. Discusses the resources of South Carolina, including its

marine fisheries. The fisheries section of the report gives 1950 statistics in most cases and describes mullet, sea bass, shad, menhaden, oyster, clam, crab, and shrimp fisheries. Sport fishing also is discussed.

Studies on the Production of Underwater Sound by North Atlantic Coastal Fishes, by Marie Poland Fish, Alton S. Kelsey, Jr., and William H. Mowbray, Technical Report 1, Office of Naval Research Contract Four-396 (02), 24 pp., printed. (Reprinted from Sears Foundation Journal, Mar. Res.) Narragansett Marine Laboratory, University of Rhode Island, Kingston, R. I., Dec. 1952. Previous studies suggest that at least 42 families of Pacific Ocean fishes are potential sources of underwater sound. The present investigation has undertaken to ascertain experimentally which North Atlantic coastal species fit into that category and what stimuli are involved in sound production among fishes. Apparatus, test, and analysis procedures are described. Recorded for 26 species are "biological" sound, the mechanism responsible for sound production, the frequency range, the principal frequency components, and a description of each sound. Relationship is noted between origin of sound and its frequency characteristics. The majority of species tested have principal frequencies between 75 and 300 cps; none exhibited sounds lower than 20 cps, and with 3 exceptions, none produced sounds higher than 1600; stridulatory sounds of triggerfish, filefish, and burrfish reached the 2400-4800 cps octave. With the available filter system, nothing could be measured faithfully above that band. Noise of "mechanical" origin was recorded for 22 additional species. No sound was observed during routine testing of 6 species. This paper is based on research conducted under contract with the Office of Naval Research.

"Submarine Photography in Puget Sound," article, Science, vol. 120, no. 3119, October 8, 1954, pp. 579-580, illus., printed, single copy 25 cents. Science, 1515 Massachusetts Ave. N. W., Washington 5, D. C.

"Trout Rushed From 'Farm' to Freezer to Package in Top-Quality Fish Operation," by Philip D. Shea, article, Food Engineering, vol. 27, no. 1 (January 1955), pp. 80-81, illus., printed, single copy 35¢. Food Engineering, 330 W. 42nd St., New York 36, N. Y. Describes the operations of a rainbow trout producer and merchandiser in Buhl, Idaho. The company raises the rainbow trout, then grades, dresses, sharp freezes, and packages it in retail and institutional sizes.

Whaling--Amendments to the Schedule to the International Whaling Convention Signed at Washington December 2, 1946, Treaties and other International Act Series 2866, Department of State Publication 5318, 5 pp., printed, 5 cents. For sale by Superintendent of Documents, Washington 25, D. C., 1954. Presents the amendments adopted at the Fifth Annual Meeting of the International Whaling Commission, London, England, June 1953, and which entered into force October 8, 1953.

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"Whaling Season Short but Good," article, Norwegian Joint Stock Banks Financial Review, vol. 29, no. 3 (July) 1954, pp. 4-5, printed in English. Norwegian Bankers Bureau of Statistics and

Information, Oslo, Norway. This is a brief summary of the results of the 1953/54 international Antarctic whaling season. Price trends in the whale-oil industry are discussed.



SHRIMP SPOILAGE POINT DETERMINED BY ULTRAVIOLET LIGHT

It is possible to determine, by means of ultraviolet light, the point at which shrimp reach the spoiling stage. The core of a shrimp starts giving off a white fluorescence from 48 to 72 hours before it is possible to detect any other signs of spoilage. At this time, the shrimp are in good condition and perfectly safe to eat. The fluorescence begins with a small trace towards the head and increases as time passes. Spoiling can thus be determined far enough in advance to make it unnecessary for any packer to purchase shrimp that will spoil before processing. The equipment is said to cost less than \$40.

--Food Field Reporter, Dec. 14, 1953.

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