



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

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.

SL - STATISTICAL SECTION LISTS OF DEALERS IN AND PRODUCERS OF FISHERY PRODUCTS AND BYPRODUCTS.

SEP.- SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.

SSR.-FISH - SPECIAL SCIENTIFIC REPORTS--FISHERIES (LIMITED DISTRIBUTION).

Number	Title
CFS-810	- New Jersey Landings, August 1952, 2 p.
CFS-830	- Frozen Fish Report, January 1953, 8 p.
CFS-831	- New Jersey Landings, September 1952, 2 p.
CFS-832	- New Jersey Landings, October 1952, 2 p.
CFS-833	- Manufactured Fishery Products, 1951 Annual Summary, 6 p.
CFS-834	- Massachusetts Landings, November 1952, 7 p.
CFS-836	- Florida Landings, November 1952, 6 p.
CFS-837	- Maine Landings, November 1952, 4 p.
CFS-838	- Texas Landings, December 1952, 4 p.
CFS-839	- Fish Meal and Oil, December 1952, 2 p.
CFS-840	- Mississippi River Fisheries, 1950 Annual Summary, 7 p.
SSR-Fish. No. 84	- Furunculosis of Fish, by Bruce M. McCraw, 91 p., December 1952

Number	Title
<u>Wholesale Dealers in Fishery Products (Revised):</u>	
SL-9	- Delaware, 1953, 1 p.
SL-16	- Florida, 1953, 11 p.
SL-20	- Texas, 1953, 4 p.
Sep. 338	- Japanese 1952 North Pacific Salmon-Fishing Expedition.
Sep. 339	- Use of Fish in New England Schools Increased by Demonstrations.
Sep. 340	- Louisiana School-Lunch Program Uses More Fish.
Sep. 341	- Experiments with a "Fish Pump."
Sep. 342	- Technical Note No. 24--A Portable Immersion Freezer.

MISCELLANEOUS PUBLICATIONS

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

British Columbia Catch Statistics 1952 (By Area and Type of Gear), 131 p., illus., processed. Department of Fisheries of Canada, Pacific Area, Vancouver 5, B.C. (Limited distribution.) This is the second annual report of fish-catch statistics for British Columbia based on the multiple sales-slip system that was introduced on a Province-wide basis on January 1, 1951. Statistics are presented by species, by months, by year, and by area. The most significant effect on the volume of fish caught in British Columbia in 1952 was the decrease in the fishing effort caused by the tie-up of the fishing fleets pending price and other negotiations between the fishermen's union and the operators. There were

five distinct and separate periods during 1952 when fishing activities were curtailed. The first major stoppage occurred when the whaling fleet remained tied up pending a union contract and did not leave port until May 2, nearly four weeks later than in 1951. Despite this, however, the total whale catch was the highest for many years. Whaling statistics are not reported on sales slips and are therefore not included in this summary. The second tie-up started in Prince Rupert on April 29 when most of the trawl fleet remained in port pending price negotiations and union recognition. This tie-up gradually spread to other parts of the Province and included most but not all of the trawler fleet. The

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boats finally started returning to the fishing grounds on June 23, but production was seriously curtailed during the tie-up. During the salmon season, the gill-net and seine fleets were tied-up on two separate occasions. From July 20 to July 24, the gill-net and seine fleets remained in port pending price negotiations on pink salmon. The second tie-up of the salmon gill-net and seine fleet occurred during prolonged negotiations on the price of chum salmon. This lasted from September 6 until October 20 and, with the exception of a small number of boats fishing for the cooperatives or for food relief purposes, the tie-up of net fishermen was practically 100 percent effective. The final tie-up during the year affected the herring seine fleet. Due to the drop in the market price for fish oils since the last season, the operators initially offered a lower price per ton to the fishermen for the 1952/53 season as compared with the previous year. This was not acceptable to the fishermen and attempts made at negotiating a price satisfactory to both operators and union were not successful in the closing months of 1952.

(British Columbia) Provincial Department of Fisheries Report (with Appendices, for the Year Ended December 31, 1951), 116 p., illus., printed. Provincial Department of Fisheries, Victoria, B. C., 1952. The first section of this report is devoted to an analysis of British Columbia's 1951 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-salt salmon, dry-salt herring, and pickled herring), the halibut fishery, fish oil and meal, net fishing in non-tidal waters, value of Canadian fisheries and the standing of the provinces for 1950, species and value of fish caught in British Columbia, condition of British Columbia's salmon-spawning grounds, and the herring investigation. The second section of this report includes the following articles: "Contributions to the Life-History of the Sockeye Salmon (Paper No. 37)," by D. R. Foskett; "Results of the West Coast of Vancouver Island Herring Investigation, 1951-52," by J. C. Stevenson, A. S. Hourston, K. J. Jackson, and D. N. Outram; "The Larva of *Bankia setacea* Tryon," by D. B. Quayle; "Report of the International Fisheries Commission, 1951;" "Report on the Investigations of the International Pacific Salmon Fisheries Commission for 1951;" and the "Salmon-spawning Report, British Columbia, 1951." Statistical data on the British Columbia fisheries are also included.

(Canada) Fisheries Statistics of Canada, 1949 and 1950, 96 p. (tables), printed (in English and French), C\$1.00. Department of Trade and Commerce, Dominion Bureau of Statistics, Ottawa, Canada, 1952. This is a review of the fishery statistics of Canada for 1949 and 1950 prepared in collaboration with Dominion and Provincial Fisheries Departments. It includes data on the quantity and value of the catch of fishery products for Canada as a whole (excluding Newfoundland); production of fish oils and fish meal; production of frozen, salted, pickled, vinegar-

cured, and canned fish; shellfish production; employment in fish-processing establishments; and value of exports and imports of fishery products. The publication also contains data on the total value of the fisheries, by province, for 1948-1950; Canada's lobster pack, by province, for 1941-1950; and fishing bounties paid to vessels and boats in 1949 and 1950.

(Canada) 1949 Landings of Fresh Groundfish by Off-shore Vessels at Nova Scotia Ports, by F. D. McCracken and G. Sullivan, Statistical Series No. 3, 8 p., illus., processed. Fisheries Research Board of Canada, Atlantic Biological Station, St. Andrews, N.B., February 1953. This is the third of a series of circulars which presents data for fresh groundfish landings by offshore vessels at Nova Scotia ports for 1949. Statistics of catch by species and size are recorded by months in relation to fishing method. Catch statistics for part of the offshore fleet are listed by quarters in relation to area fished. Special reference is made to ocean perch (redfish) in this circular with a graphic presentation of the long-term trend in total landings by all countries from the Nova Scotia Banks and Gulf of St. Lawrence and a graph of the more recent landings of this species from Newfoundland Banks.

Gulf States Marine Fisheries Commission Third Annual Report 1951-52 (to the Congress of the United States and to the Governors and Legislators of Alabama, Florida, Louisiana, Mississippi, and Texas), 38 p., illus., printed. Gulf States Marine Fisheries Commission, 312 Audubon Bldg., New Orleans 16, La. Contains the Commission's activities for the period October 1951-October 1952. Resumes of biological, oceanographic, and technological research by the various Gulf states and plans for future investigations are presented. Included are short discussions of the U. S. Fish and Wildlife Service activities in biological research and exploratory fishing in the Gulf area. Also describes the oceanographic survey and oyster investigations, and contains a financial report of the Commission.

Handbook on Sanitation of Vessels in Operation, PHS Publication No. 68, 48 p., illus., printed, 25 cents. Division of Sanitation, Public Health Service, Federal Security Agency, Washington, D.C., 1951. (For sale by the Superintendent of Documents, Washington 25, D. C.) This booklet describes in detail recommended sanitary measures to be taken on board vessels in interstate and international commerce. Divided into seven major sections, the recommendations cover such subjects as potable water, wash water, waste disposal, vermin control, food sanitation, and the all-important ratproofing schemes. Shipowners, seamen, health officials, and those engaged in foreign commerce, in particular, will find this booklet helpful in maintaining good sanitary conditions at sea. There is attached to the inside cover of this handbook a copy of a Public Health Service form entitled "Inspection Report--Vessel Sanitation." It is a revision of one generally used by Public Health Service representatives during inspections of vessels in operation. The sequence of the items on the form follows that in the handbook.

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Inter-American Tropical Tuna Commission Annual Report for the Years 1950 and 1951, 58 p., illus., printed, in Spanish and English. Inter-American Tropical Tuna Commission, La Jolla, Calif., 1952. The Convention between the United States of America and the Republic of Costa Rica for the establishment of an Inter-American Tropical Tuna Commission was signed on May 31, 1949. The purpose of the Convention is to establish a means of cooperation in the gathering and interpretation of factual information to facilitate maintaining, at a level which will permit maximum sustained catches, the populations of yellowfin and skipjack tuna, and other fish taken by tuna fishing vessels in the eastern Pacific Ocean. This report describes the functions and duties of the Commission and outlines the program of investigations. It includes a report of the investigations of the Inter-American Tropical Tuna Commission during the year 1951, and the text of the Convention between the United States of America and the Republic of Costa Rica for the establishment of the Commission. Also included are the enabling legislation passed by the United States Congress, giving effect to the Convention, and the Decree ratifying the Convention adopted by the Republic of Costa Rica.

NEFCO, From Sea To World Markets, by Harry R. Beard, 128 p., printed, \$1.25. New England Fish Company, Seattle, Washington, 1953. Although designed primarily as a means of publicizing the products and activities of the New England Fish Company, on the occasion of its 85th anniversary, the book contains considerable valuable information on the fishing industry. There is accurate and authentic information on historical background, catching, packing, freezing, processing, packaging, and marketing of fish and shellfish (including salmon, tuna, crabs, clams, oysters, halibut, cod, rockfishes, flounders, smelt, and herring). Of particular interest are the discussions on what buyers want to know about fresh fish, frozen fish, and canned tuna; and inspecting and grading of canned salmon. General information on the nutritional value of fishery products and sources of fishery information are also valuable. Also included are an interesting history of the development of the company and its facilities, and a list of its products and how they are produced and marketed. Written in the language of the layman, the report makes interesting and informative reading for fish producers, buyers, or consumers. The photographs and illustrations are excellent and were used freely.

"The Netherlands Sea Harvest," by W. G. Pybus, article, Foreign Trade, vol. 13, no. 320 (February 14, 1953), pp. 7-9, printed, single copy 10 cents. The Department of Trade and Commerce, Ottawa, Canada. (Available from The Queen's Printer, Government Printing Bureau, Ottawa, Canada.) Describes the Netherlands fishing industry for 1952, rising costs and prices, and trade in fishery products, and includes a forecast for the fishing industry for 1953. Statistical data are also included on landings of fish in Netherlands ports for 1951 and January-September 1952, and imports (from Canada) and exports.

"The Oyster Farmers of Virginia," by James Wharton, article, The Commonwealth, January 1953, pp. 14-16,

illus., printed, 25 cents per issue. Virginia State Chamber of Commerce, Richmond 19, Va. Describes Virginia's public and private oyster-growing industry. Throughout Tidewater Virginia there are oyster grounds operated by business enterprise and the so-called "public rocks" administered by State authorities. A discussion of the two different types is found in this article.

(Pacific Marine Fisheries Commission) Fifth Annual Report of the Pacific Marine Fisheries Commission for the Year 1952 (To the Congress of the United States and the Governors and Legislatures of Washington, Oregon, and California), 19 p., printed. Pacific Marine Fisheries Commission, Portland, Oregon. Describes briefly the activities of the Commission and contains a short resume of the one meeting of the Commission during 1952. Also included are summaries of reports submitted by the participating agencies on the research conducted in 1952 on the following marine species and fisheries: ocean salmon, albacore tuna, sablefish (black cod), the otter-trawl fishery, and pollution research. In addition, a financial report of the Commission appears in the report.

(Scotland) The Food of Halibut from North Atlantic Fishing Grounds, by A. D. McIntyre, Marine Research 1952 No. 3, 22 p., illus., printed, 4s. 1½d. (about 58 U.S. cents). Scottish Home Department (Available from Her Majesty's Stationery Office, Edinburgh, Scotland), 1953. Describes the food of the North Atlantic halibut, based on the examination of 1,225 stomachs, mostly from the waters around Iceland and Faroe. The halibut had been feeding mainly on fish, decapod crustacea, and cephalopoda, according to this report. A change in feeding with age, from a more or less mixed diet in the younger specimens to an almost entirely fish diet in the adults is suggested, particularly off Iceland. The feeding intensity is greater in summer than in spring. The small number of species required to support the halibut population is noted, and the importance of Sebastes marinus discussed. The feeding habits are considered and some of the factors connected with a fish taking bait are analyzed.

(Scotland) Haddock Bionomics--1. The State of the Haddock Stocks in the North Sea 1946-50 and at Faroe 1914-50, by B. B. Parrish and R. Jones, Marine Research 1952 No. 4, 27 p., illus., printed, 5s. 1½d. (about 72 U.S. cents). Scottish Home Department (Available from Her Majesty's Stationery Office, Edinburgh, Scotland), 1953. The first in a series entitled "Haddock Bionomics," this publication is an attempt to apply theoretical models to fish population problems developed on precise concepts of "overfishing," "maximum yield," and "maximum fishing intensity," earlier formulated. To the authors, the concept of "maximum fishing intensity" is the most important element in biological overfishing, and can be defined as "...that fishing intensity which, when operative in a given area, on a self-contained fish stock over a number of years during which recruitment has been relatively steady, would give the maximum sustained yield from that area. When the fishing intensity increases above that level which gives rise to the maximum sustained yield from the gear in use then the stock is, on this definition, being 'overfished'."

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The authors conclude, "The particular merits of this definition are (1) that it is independent of political or economic factors, which determine the profitableness of fishing to the individual fishermen and which may fluctuate widely from year to year, and (2) that the maximum yield can be determined from population data and is characteristic of each self-contained fish stock subject to commercial exploitation. Necessarily, it depends upon the method or methods of fishing." This study is the result of the assessment of the haddock stocks on the Faroe Plateau and in the North Sea since 1914 and 1946, respectively, by the use of mathematical models to determine the present level of yield in relation to the maximum yield, based on the biological concepts which are more reliable than the interpretation of commercial statistics alone.

Seasonal and Vertical Patterns of Oyster Setting off Wadmalew Island, S. C., by J. Kneeland McNulty, Contributions from Bears Bluff Laboratories No. 15, 19 p., illus., printed. Bears Bluff Laboratories, Wadmalew Island, S. C., January 1953. Describes seasonal and vertical patterns of oyster setting as estimated from semimonthly spat counts of cultch exposed at various vertical elevations during two setting seasons at three stations near Bears Bluff Laboratories, Wadmalew Island. Spatfall in excess of one percent of the seasonal total can be expected from early May through early October, subject to annual variations of about two weeks. Two setting pulses can be expected each season, the first from early June through early July and the second, of lesser intensity, some time in August or early September, with setting of considerable intensity occurring before, between, and after these maxima. A vertical difference of about 2 feet has been detected in the zone of maximum setting at 2 stations, about 2.8 and 8.3 nautical miles distant from the sea. As measured from mean low tide level, maximum setting occurred at about minus 1 foot at the more

seaward station and at about plus 1 foot at the other station. Setting below low-water mark to a depth of 7 feet was continuous from about July 1 until about September 15, 1952, at the station investigated. Spatfall intensity at minus 3, 5, and 7 feet averaged about 1.5 times less than intensity at minus 1 foot and about 4 times less than at plus 1 foot. Rapid fouling of clean cultch below low-water mark with bryozoa and silt is suggested as a major factor in reduced setting below low-water mark.

Years of Progress 1945-1952 (U. S. Department of the Interior), 197 p., illus., printed, \$1.25 (paper). (For sale by the Superintendent of Documents, Washington 25, D. C.) This publication reports on the progress in the utilization and conservation of our natural resources and the contributions of the various agencies (including the Fish and Wildlife Service and the Defense Fisheries Administration) of the Department of the Interior during the period 1945-52. It is divided into major sections by major resources-- (1) Water and Power, (2) Mineral Resources, and (3) The Land of America. The latter section includes, among others, a report of the Fish and Wildlife Service with specific discussions on utilization of fishery resources (including a description of the contributions of the Branch of Commercial Fisheries); disaster caused by the sea lamprey in the Great Lakes fisheries; Alaska fisheries administration; maintenance of inland fisheries; aid to the states in fish and wildlife conservation, river basin studies, protection of wildlife resources; and other activities. Other major sections of this publication are (1) The Defense Agencies of the Department, (2) Departmental Management, (3) Foreign and International Affairs, and (4) The Controversy Over the Continental Shelf. The first of these sections includes a description of the Defense Fisheries Administration's progress since its establishment in 1950.



WHAT DO CONSUMERS LIKE ABOUT FROZEN FISH?

"Ease of preparation" is the most liked feature of frozen fish. This was brought out in the recently published results of a national consumer survey (Fish and Shellfish Preferences of Household Consumers) made by the U. S. Fish and Wildlife Service during 1951. It was mentioned by nearly half (42 percent) of those asked: "What do you particularly like about frozen fish?"

"Taste" ranked second in importance, with 23 percent saying that they particularly liked frozen fish for this reason. The "price" of frozen fish



surprisingly ranked far below many other features, with only 3 percent mentioning it. "Ease of storing" frozen fish in the refrigerator (cited by 12 percent of the respondents) was third in importance. "Ready availability" (liked by 6½ percent), "lack of bones" (6 percent), and its "addition of variety" to the diet (5½ percent) were all advantages of frozen fish more frequently mentioned than its economy.

Analysis of the replies by geographic areas of the country (Northeast, North Central, South, and West) gave quite similar rankings to the main reasons for frozen fish being liked. "Ease of preparation" and "taste" ranked one and two, respectively, in all areas. "Ease of storage" was third everywhere except in the South, where it dropped to fourth place with "easy availability" third.

The fourth ranking virtue of frozen fish in both the Northeast and West was considered to be the "variety" which it could add to the diet. However, in the North Central area people considered the "absence of bones" as being fourth in importance.

Part I--National Summary (FL-407) and Part II--Regional Summary (FL-408) of the series Fish and Shellfish Preferences of Household Consumers--1951 are available free upon request from the Division of Information, U.S. Fish and Wildlife Service, Washington 25, D. C.