



RECENT FISHERY PUBLICATIONS

FISH AND WILDLIFE SERVICE PUBLICATIONS

THESE PROCESSED PUBLICATIONS ARE AVAILABLE FREE FROM THE OFFICE 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.
 FL - FISHERY LEAFLETS.
 MNL - REPRINTS OF REPORTS ON FOREIGN FISHERIES.
 SEP.- SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.
 SL - STATISTICAL LISTS OF DEALERS IN AND PRODUCERS OF FISHERY PRODUCTS AND BYPRODUCTS.
 SSR.- FISH. - SPECIAL SCIENTIFIC REPORTS--FISHERIES (LIMITED DISTRIBUTION).
 WL - WILDLIFE LEAFLETS.

Number	Title
CFS-2877	- Massachusetts Landings by Ports, 1961 Annual Summary, 14 pp.
CFS-2954	- New Jersey Landings, June 1962, 3 pp.
CFS-2955	- Massachusetts Landings, March 1962, 5 pp.
CFS-2957	- Shrimp Landings, 1961 Annual Summary, 21 pp.
CFS-2959	- Rhode Island Landings, May 1962, 3 pp.
CFS-2960	- Frozen Fish Report, July 1962, 8 pp.
CFS-2961	- Mississippi Landings, May 1962, 3 pp.
CFS-2962	- Maryland Landings, June 1962, 3 pp.
CFS-2963	- Virginia Landings, June 1962, 3 pp.
CFS-2964	- California Landings, April 1962, 4 pp.
CFS-2965	- Shrimp Landings, March 1962, 6 pp.
CFS-2966	- Massachusetts Landings, April 1962, 5 pp.
CFS-2967	- Fish Meal and Oil, June 1962, 2 pp.
CFS-2969	- Maine Landings, June 1962, 4 pp.
CFS-2970	- California Landings, May 1962, 4 pp.
CFS-2971	- Ohio Landings, June 1962, 2 pp.
CFS-2972	- Wisconsin Landings, June 1962, 2 pp.
CFS-2973	- Michigan Landings, May 1962, 3 pp.
CFS-2974	- New York Landings, June 1962, 4 pp.
CFS-2975	- California Landings, June 1962, 4 pp.
CFS-2976	- Rhode Island Landings, June 1962, 3 pp.
CFS-2978	- Texas Landings, May 1962, 3 pp.
CFS-2979	- South Carolina Landings, July 1962, 2 pp.
CFS-2981	- Georgia Landings, June 1962, 2 pp.
CFS-2982	- Georgia Landings, July 1962, 2 pp.
CFS-2983	- Mississippi Landings, June 1962, 3 pp.
CFS-2984	- Maryland Landings, July 1962, 3 pp.
CFS-2985	- Shrimp Landings, April 1962, 6 pp.
CFS-2988	- North Carolina Landings, July 1962, 3 pp.
CFS-2990	- Florida Landings, July 1962, 8 pp.

FL-534 - Marking and Tagging Fishes, by Albert C. Jensen, 8 pp., illus., March 1962. Discusses the two most common techniques of marking fish, fin clipping and tagging. Describes the most widely used types of tags, a tagging method representative of that used for many species of fish, and ob-

jectives of marking and tagging studies. Includes illustrations of methods of attaching different types of tags.

Sep. No. 657 - A Method of Predicting Fluctuations in the Sea Scallop Populations of Maine.

Sep. No. 658 - Accuracy of Net-Weight Determinations for Frozen Glazed Halibut Steaks.

SL-21 - Wholesale Dealers in Fishery Products, California, 1962, 7 pp. (Revised).

Firms Canning, 1961 (Revised):

SL-102	- Maine Sardines, 1 p.
SL-102A	- Pacific Sardines, 1 p.
SL-103	- Tuna, 2 pp.
SL-103A	- Tunalike Fishes, 1 p.
SL-104	- Mackerel, 1 p.
SL-105	- Alewives, 1 p.
SL-106	- Shad, 1 p.
SL-107	- Fish and Shellfish Specialties, 5 pp.
SL-109	- Caviar and Fish Roe, 2 pp.
SL-110	- Oysters, 2 pp.
SL-116	- Food for Animals from Marine-Animal Products, 2 pp.
SL-119	- Squid, 1 p.

Firms Manufacturing, 1961 (Revised):

SL-154	- Seaweed Products, 1 p.
SL-155	- Marine Pearl Shell Buttons, 1 p.
SL-156	- Pearl Essence, 1 p.
SL-159	- Fresh-Water Mussel-Shell Products, 1 p.
SL-160	- Menhaden Products, 2 pp.

SL-161 - Producers of Packaged Fish, 1961, 7 pp. (Revised).

SSR-Fish. No. 409 - Conversion of "Whole" and "Headless" Weights in Commercial Gulf of Mexico Shrimps by Joseph H. Kutkuhn, 8 pp., illus., March 1962. Discusses a statistical survey on the conversion of commercial catch statistics tabulated according to weight from "headless" or "heads-off" terms back to "whole" or "heads-on" units. Measurements of whole and corresponding headless weights permitted estimation of weight conversion factors for five of the most common Gulf of Mexico shrimp. Equations and factors for predicting whole or headless weights are given for brown, white, pink, and rock shrimp, and seabob. Nomographs which facilitate the conversion of individual whole or headless shrimp on a simple weight or number-per-pound basis are provided for brown, white, and pink shrimp.

WL-444 - Fur Catch in the United States, 1961, 4 pp., June 1962.

Annual Report of the Commissioner Fish and Wildlife Service to the Secretary of the Interior, 44 pp., illus., printed. (Reprinted from the Annual Report of the Secretary of the Interior, for the fiscal year ended June 30, 1961.) Summarizes the various activities of the Service. Describes the activities of the Bureau of Commercial Fisheries: biological research on salmon, tuna, sea lamprey in the Great Lakes, radiation of seafood, fish meals, fishing gear, and economic trends within the fishing industry; and construction of new laboratories and research vessels. Also covers marketing reports and statistics; foreign trade activities, including tariff negotiations and fish meal promotion; the Columbia River Fishery Program; and the Pribilof Islands fur-seal resource. Activities of the Bureau of Sport Fisheries and Wildlife include, among others, a marine game-fish research program, Federal aid in sport-fish restoration, fishery management activities, river basin studies, and a national fish hatchery program.

Report of the Bureau of Commercial Fisheries for the Calendar Year 1957, 78 pp., printed, 1962. This is the first report of the Bureau of Commercial Fisheries, established in 1956. This, however, is not the first annual Government report on fishery activities, for the U.S. Commissioner of Fish and Fisheries issued an annual report to Congress for the year 1872-73. The U.S. Bureau of Fisheries continued the reporting through 1940, after which fishery activities were described annually by the Secretary of the Interior in his departmental report to the President. The present fishery report renews the original series and presents a condensed record of the administrative actions of the Bureau. After background material is given, the report discusses the budget and physical property for the fiscal year 1957; conditions, trends, and developments in both domestic and international fisheries; principal accomplishments of the Bureau in the North Pacific, California, Gulf of Mexico, Atlantic coast, and the Great Lakes; and new programs, meetings, and cooperative efforts in fishery matters undertaken by the Bureau. The appendix includes the Fish and Wildlife Act of 1956, an organization chart of the Bureau, the budget for FY 1957, a list of laws relating to the U.S. commercial fishery, a 1957 list of publications by Bureau personnel, and other data.

THE FOLLOWING MARKET NEWS LEAFLETS ARE AVAILABLE FROM THE BRANCH OF MARKET NEWS, BUREAU OF COMMERCIAL FISHERIES, U. S. FISH AND WILDLIFE SERVICE, WASHINGTON 25, D. C.

Number	Title
MNL-8	Portugal's Fishing Industry, 1961, 22 pp.
MNL-32	Venezuelan Commercial Catch, Production of Processed Fishery Products and Foreign Trade, 14 pp.
MNL-54	Fisheries in Singapore and British Borneo, 3 pp.

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

Annual Report of the Biological Laboratory, Woods Hole, Mass. (for the Year Ending June 30, 1961), Circular 137, 92 pp., illus., processed, February 1, 1962. (Bureau of Commercial Fisheries, Biological Laboratory, Woods Hole, Mass.) Presents a summary of the laboratory's research activities in the Northwest Atlantic Fishery Investigations program. Studies relating to the management of the

groundfish of the Northwest Atlantic, as in past years, continued to occupy an important place in the program. Recommendations limiting the size of net meshes in the various subareas were made by the International Commission for the Northwest Atlantic Fisheries to member countries. The conservation of sea scallops was given considerable attention this year. The highlight of the year was the completion and occupation of the aquarium building. The report also outlines investigations on haddock, ocean perch, cod, hake, flounder, groundfish ecology, benthic ecology, plankton, fish behavior, and larval fish feeding. Also contains reports on biometrics, tagging, shellfish research, and instrumentation studies. Recent publications are also listed and statistical data are given concerning the Laboratory's library.

(Baltimore) Monthly Summary--Fishery Products, July 1962, 8 pp. (Market News Service, U. S. Fish and Wildlife Service, 103 S. Gay St., Baltimore 2, Md.) Receipts of fresh- and salt-water fish and shellfish at Baltimore by species and by states and provinces; total receipts by species and comparisons with previous periods; and wholesale prices for fresh fishery products on the Baltimore market; for the month indicated.

California Fishery Market News Monthly Summary, Part I - Fishery Products Production and Market Data, July 1962, 17 pp. (Market News Service, U. S. Fish and Wildlife Service, Post Office Bldg., San Pedro, Calif.) California cannery receipts of tuna and tuna-like fish and other species used for canning; pack of canned tuna, tunalike fish, mackerel, and anchovies; market fish receipts at San Pedro, Santa Monica, and Eureka areas; California and Arizona imports; canned fish and frozen shrimp prices; ex-vessel prices for cannery fish; for the month indicated.

(Chicago) Monthly Summary of Chicago's Wholesale Market Fresh and Frozen Fishery Products Receipts, Prices, and Trends, July 1962, 13 pp. (Market News Service, U. S. Fish and Wildlife Service, 565 W. Washington St., Chicago 6, Ill.) Receipts at Chicago by species and by states and provinces for fresh- and salt-water fish and shellfish; and weekly wholesale prices for fresh and frozen fishery products; for the month indicated.

Gulf of Mexico Monthly Landings, Production and Shipments of Fishery Products, July and August 1962, 8 and 9 pp. respectively (Market News Service, U. S. Fish and Wildlife Service, Rm. 609, 600 South St., New Orleans 12, La.) Gulf States shrimp, oyster, finfish, and blue crab landings; crab meat production; LCL express shipments from New Orleans; wholesale prices of fish and shellfish on the New Orleans French Market; fishery imports at Port Isabel and Brownsville, Texas, from Mexico; and sponge sales; for the months indicated.

Monthly Summary of Fishery Products Production in Selected Areas of Virginia, North Carolina, and Maryland, August 1962, 4 pp. (Market News Service, U. S. Fish and Wildlife Service, 18 S. King St., Hampton, Va.) Landings of food fish and shellfish and production of crab meat and shucked oysters for the Virginia areas of Hampton Roads, Chincoteague, Lower Northern Neck, and Lower Eastern Shore; the Maryland areas of Crisfield, Cambridge, and Ocean City; and the North Carolina areas of Atlantic, Beaufort, and Morehead City; together with cumulative and comparative data on fishery products and shrimp production; for the month indicated.

(Seattle) Washington and Alaska Receipts and Landings of Fishery Products for Selected Areas and Fisheries, Monthly Summary, August 1962, 9 pp. (Market News Service, U. S. Fish and Wildlife Service, 706 Federal Office Bldg., 909 First Ave., Seattle 4, Wash.) Includes Seattle's landings by the halibut and salmon fleets reported through the exchanges; landings of halibut reported by the International Pacific Halibut Commission; landings of otter-trawl receipts reported by the Fishermen's Marketing Association of Washington; local landings by independent vessels; coastwise shipments from Alaska by scheduled and non-scheduled shipping lines and airways; imports from British Columbia via rail, motor truck, shipping lines, and ex-vessel landings; and imports from other countries through Washington customs district; for the month indicated.

New York City's Wholesale Fishery Trade--Monthly Summary--May 1962, 21 pp. (Market News Service, U. S. Fish and Wildlife Service, 155 John St., New York 38, N. Y.) Includes summaries and analyses of receipts and prices on wholesale Fulton Fish Market, including both the salt- and fresh-water sections; imports entered at New York customs district; primary wholesalers' selling prices for fresh, frozen, and selected canned fishery products; marketing trends; and landings at Fulton Fish Market docks and Stonington, Conn.; for the month indicated.

THE FOLLOWING SERVICE PUBLICATIONS ARE FOR SALE AND ARE AVAILABLE ONLY FROM THE SUPERINTENDENT OF DOCUMENTS, U. S. GOVERNMENT PRINTING OFFICE, WASHINGTON 25, D. C.

"A Comparison of Rearing Methods for Channel Catfish Fingerlings," by J. R. Snow, article, Progressive Fish-Culturist, vol. 24, no. 3, July 1962, pp. 112-118, processed, 25 cents.

"A Device for Evaluating the Numbers and Rates of Downstream Fish Movements," by Donald H. Nolting, article, Progressive Fish-Culturist, vol. 24, no. 3, July 1962, pp. 131-132, illus., processed, 25 cents.

"Hatchery-Reared Atlantic Salmon Smolts in Ten Months," by Henry C. Markus, article, Progressive Fish-Culturist, vol. 24, no. 3, July 1962, pp. 127-130, illus., processed, 25 cents.

"Lethal Effect of Fluorescent Light on the Eggs of the Brook Trout," by Alfred Perlmutter and Edward White, article, Progressive Fish-Culturist, vol. 24, no. 1, January 1962, pp. 26-30, processed, single copy 25 cents.

"A 132-Kilocycle Sonic Fish Tag," by Anthony J. Novotny and Gordon F. Esterberg, article, Progressive Fish-Culturist, vol. 24, no. 3, July 1962, pp. 139-141, illus., processed, 25 cents.

"Pelage and Surface Topography of the Northern Fur Seal," by Victor B. Scheffer, North American Fauna No. 64, 212 pp., illus., printed, \$1, 1961. Contains information on the fur-seal pelage of the northern fur seal, Callorhinus ursinus (L.), on the Pribilof Islands. Describes certain gross and microscopic aspects of the pelage on representative specimens ranging in age from fetal to old adult, and other features of the surface topography. Contains statistical data on length and weight of male and female fetal seals, sizes of male sealskins taken in early and late season, trade classification of sealskins with relation to field length of seals, yield of oil

from fur seals, and related data. Also includes data on the Pribilof sealskin industry and on natural colors of seals and their pelts.

"Shipping Small Chinook Salmon in Closed Plastic Containers," by Richard S. Harrison and Keith D. Moore, article, Progressive Fish-Culturist, vol. 24, no. 3, July 1962, pp. 135-136, illus., processed, 25 cents.

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 ORGANIZATIONS OR PUBLISHER MENTIONED. DATA ON PRICES, IF READILY AVAILABLE, ARE SHOWN.

ABALONE:

"Isolation of a Photodynamic Agent from the Liver of Abalone Haliotis discus hannai," by Yoshiro Hashimoto and Junzo Tsutsumi, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 27, September 1961, pp. 859-866, printed. Japanese Society of Scientific Fisheries, 6-Chome, Shiba-Kaigandori, Minato-Ku, Tokyo, Japan.

ALASKA:

Regulations of the Alaska Board of Fish and Game for Commercial Fishing in Alaska, 124 pp., printed. Alaska Department of Fish and Game, 229 Alaska Office Bldg., Juneau, Alaska, 1962. Contains license fees and statutes, definitions of terms used in the regulations, and provisions for commercial fishing in Alaska and in international waters. The general provisions section discusses regulations such as license requirements for fishermen, vessels, and gear; reports required from operators; inspection of fishery establishments; prohibition of explosives, chemicals, and poisons. Also discusses salmon, bottomfish, smelt, herring, shellfish, whitefish, sheefish, and char fisheries requirements; subsistence fishery provisions; and emergency regulations.

ALGAE:

"Ninhydrin Reactive Substances in Marine Algae. I--On the Absorbable Fraction on Strong Cationic Ion-Exchange Resin; II--On the Nonabsorbable Fraction on Strong Cationic Ion-Exchange Resin," by Mitsuo Kuriyama, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 27, July 1961, pp. 689-698, printed in Japanese. Japanese Society of Scientific Fisheries, 6-Chome, Shiba-Kaigandori, Minato-Ku, Tokyo, Japan.

ALGERIA:

"La place de la peche maritime dans le developpement economique de l'Algerie" (The Position of the Marine Fishery in the Economic Development of Algeria), by R. Simonnet, article, La Peche Maritime, vol. 41, no. 1012, July 1962, pp. 512-518, illus., printed in French. La Peche Maritime, 190, Boulevard Haussmann, Paris, France.

AMINO ACIDS:

Amino Acid Composition of Fresh Fish and Influence of Storage and Processing (Paper read at FAO International Conference on Fish in Nutrition, Washington, D. C., 19-27 September 1961), by F. A. L. Bramstedt, 8 pp., processed in English with French

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and Spanish abstracts. Fisheries Division, Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, 1961.

"A Chromatographic Analysis of the Bound Amino Acids in Lamprey Muscle (Petromyzontidae)," by Bruce M. Carlson, article, Journal of Experimental Zoology, vol. 147, no. 1, 1961, pp. 43-56, printed. Cambridge University Press, 200 Euston Rd., London NW1, England.

ANTIBIOTICS:

"The Method of Determination of Chlortetracycline in Fish Muscle," by G. B. Dubrova, Chemical Abstracts, vol. 55, November 13, 1961, 23866a, printed. American Chemical Society, 1155 16th St. NW., Washington, D. C.

BACTERIOLOGY:

"Influence of Heavy Metals Upon the Growth and the Activity of Marine Sulfate-Reducing Bacteria," by Y. Hata, article, Journal of the Shimonoseki College of Fisheries, vol. 9, 1960, pp. 363-367, printed in Japanese with English summary. Shimonoseki College of Fisheries, Jamaguchi Prefecture, Yoshimi, Shimonoseki, Japan.

"Response of Marine Sulfate-Reducing Bacteria to the Salinity of Culture Medium," by Y. Hata, article, Journal of the Shimonoseki College of Fisheries, vol. 9, 1960, pp. 329-345, printed in Japanese with English summary. Shimonoseki College of Fisheries, Jamaguchi Prefecture, Yoshimi, Shimonoseki, Japan.

BIOCHEMISTRY:

"Muscle Extracts of Aquatic Animals. III--On the Method for Determination of Betaine and its Content of the Muscle of Some Marine Animals," by Shoji Konosu and Eiichi Kasai, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 27, February 1961, pp. 194-198, printed. Japanese Society of Scientific Fisheries, 6-chome, Shiba-Kaigandori, Minato-Ku, Tokyo, Japan.

"Ophidin Isolated from Whale Pancreas," by Shigeru Tsuno, Akhiko Musashi, and Kazuyoshi Horisaka, article, Proceedings of the Japan Academy, 1959, pp. 485-490, printed in German. Secretary, Office of the Japanese Academy, Ueno Park, Tokyo, Japan.

"On the Prosthetic Group of Hemoglobin and Myoglobin of Tuna," by Yuzo Yamaguchi and Fumio Matsuura, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 27, January 1961, pp. 38-41, printed. Japanese Society of Scientific Fisheries, 6-chome, Shiba-Kaigandori, Minato-Ku, Tokyo, Japan.

"Studies on Muscle of Aquatic Animals. XXIX--Extractability of Fish Myosin (Part 1). Composition of Myosins Extracted Under Various Conditions," by Tadao Ueda, Yutaka Shimizu, and Wataru Simidu, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 27, February 1961, pp. 150-157, printed in Japanese. Japanese Society of Scientific Fisheries, 6-chome, Shiba Kaigandori, Minato-Ku, Tokyo, Japan.

"Sulfdryl Groups and the Retardation of Cleavage by Extracts of Sea Urchin Eggs," by Nancy Wolfson and K. M. Wilbur, article, Experimental Cell Research, vol. 21, 1960, pp. 219-222, printed. Experimental Cell Research, Academic Press, Inc., 111 Fifth Ave., New York 3, N. Y.

BIVALVES:

Effects of Turbidity on Some Larval and Adult Bivalves, by Victor L. Loosanoff, 16 pp., illus., printed. (Reprinted from Proceedings of the Gulf and Caribbean Fisheries Institute, Fourteenth Annual Session, November 1961, pp. 80-95.) Gulf and Caribbean Fisheries Institute, Marine Laboratory, University of Miami, #1 Rickenbacker Causeway, Miami 49, Fla.

CALIFORNIA:

A Field Guide to Some Common Ocean Sport Fishes of California Part 2, by Daniel J. Miller, Dan Gotshall, and Richard Nitsos, 40 pp., illus., printed. California Department of Fish and Game, 722 Capital Ave., Sacramento 14, Calif., 1961.

Statistical Report of Fresh, Canned, Cured and Manufactured Fishery Products, Year 1961, Circular No. 36, 16 pp., printed. Department of Fish and Game, Biostatistical Section, Marine Resources Operations, Sacramento Calif., 1962. This report, the latest in a series of annual reports on commercial fishery production in California, includes statistical tables on landings by species and areas, imports of tuna, and pack of canned fish. Data also cover volume of other types of processed fish, sardine meal and oil production, and the annual pack of sardines, anchovies, tuna, and bonito and yellowtail. Lists canning and reduction plants operating in 1961 as well as plants curing and manufacturing fishery products.

CANADA:

Fisheries Statistics of British Columbia, 1961 (Preliminary), 14 pp., printed. Department of Fisheries, Economics Branch, Pacific Area, Vancouver, B. C., Canada, April 1962. Discusses the total value of fish and fish products produced in 1961 with an analysis of the increase in total landings; landed and marketed value, production and utilization, and canned pack of salmon; landings and value of herring, halibut, crab, and shrimp; fishing vessels; gear and equipment; and number of licensed fishermen. Includes statistical tables on landings and values by species and by years; salmon pack, 1961; fish-liver production; and other similar data.

Fisheries Statistics of Canada, 1960 (Canada Summary), 65 pp., printed in English and French, 75 Canadian cents. Queen's Printer and Controller of Stationery, Ottawa, Canada, June 1962. This report provides a summary of the Canadian fisheries, arranged to show separately the three main fisheries areas--Atlantic, Pacific, and Inland. Also contains statistical tables on landings, quantity, and value by species and provinces; value of exports and imports of fish and fishery products; employment and capital equipment in the primary industry; and fish processing, packing, or handling establishments in Canada and the provinces.

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Fisheries Statistics of Canada (Nova Scotia), 1960, 42 pp., printed in French and English, C\$1. Queen's Printer and Controller of Stationery, Ottawa, Canada, June 1962. Consists of tables giving the quantity and value of fish and shellfish landed in Nova Scotia, 1948-60; quantity and value by species and fisheries districts, 1959-60; capital equipment employed and number of persons engaged in the primary operations by fisheries districts, 1959-60; and classification of powered fishing craft by over-all length.

Journal of the Fisheries Research Board of Canada, vol. 19, no. 4, July 1962, 214 pp., illus., printed, single copy C\$1.50. Queen's Printer and Controller of Stationery, Ottawa, Canada. Includes, among others, the following articles: "The Effect of Reduction of Fishing Effort on Yield," by Syoiti Tanaka; "Comparison of Ocean Growth and Mortality of Sockeye Salmon during Their Last Two Years," by W. E. Ricker; "Estimations of Ocean Mortality Rates for Pacific Salmon (*Oncorhynchus*)," by Robert R. Parker; "Proteins in Fish Muscle. 17--Fractionation of Aqueous Extracts with Zinc Acetate," by J. R. Dingle, J. A. Hines, and J. M. Neelin; "Conversion of the Free Fatty Acids of Cod Oil to Methyl Esters in Situ," by R. G. Ackman and others; "Effect of Tetracycline Antibiotics on Objective and Subjective Fish Quality Tests," by J. W. Boyd and B. A. Southcott; "Blood pH and Mortality in Rainbow Trout (*Salmo gairdnerii*) and Sockeye Salmon (*Oncorhynchus nerka*)," by R. E. E. Jonas, Harcharan S. Sehdev, and N. Tomlinson; "Skin-Diving Observations of Atlantic Salmon and Brook Trout in the Miramichi River, New Brunswick," by Miles H. A. Keenleyside; "Physical Properties and Hydrostatic Function of the Swimbladder of Herring (*Clupea harengus* L.)," by Vivien M. Brawn; "Distinctions between the Broad Whitefish, *Coregonus nasus*, and Other North American Whitefishes," by C. C. Lindsey; "Effect of Food Quantity on Fecundity of Rainbow Trout, *Salmo gairdneri*," by D. P. Scott; and "The Phospholipid Content of Lingcod Muscle during Frozen Storage," by R. E. E. Jonas and N. Tomlinson.

Operations of Modern Fishing Craft, Atlantic Seaboard, 1960, by John Proskie, Primary Industry Studies No. 1, vol. 10, 141 pp., processed. Economics Service, Department of Fisheries of Canada, Ottawa, Canada, 1962. (Available from Queen's Printer and Controller of Stationery, Ottawa, Canada.) Annual progress report on a study of the economics of primary fishing enterprises in the Atlantic provinces. Presents in summary form the results of fishing activities and the financial outcome for 139 primary fishing enterprises. The statistical data cover description of boats, capital cost, financing, and ownership; landings and landed values of fishery products, prices, receipts, expenditures, and net returns; fishing effort and returns; geographic operational areas; and seasonal fishing effort and landings.

"Proximate Composition of Canadian Atlantic Fish. II--Mackerel, Tuna, and Swordfish," by A. Mannan, D. I. Fraser, and W. J. Dyer, article, Journal of the Fisheries Research Board of Canada, vol. 18, no. 4, July 1961, pp. 495-499, printed. Fisheries Research Board of Canada, Queen's Printer and Controller of Stationery, Ottawa, Canada.

CARP:

"O Prichinakh Zabolevaniya Sazana v Del'Te Volgi" (The Causes of the Disease Among the Carp of the Volga Delta), by M. S. Kun, Biological Abstracts, vol. 37, no. 3, 1962, 8405, printed. University of Pennsylvania, 38-5 Walnut St., Philadelphia 4, Pa.

Serological Analysis of Wild and Domesticated Forms of Carp (CYPRINUS CARPIO L.), by D. N. Taliev, OTS 61-11418, 45 pp., illus., printed, 50 cents. (Translated from Trudy Zoologicheskogo instituta Akademii Nauk SSSR, vol. 8, no. 1, 1946, pp. 43-88.) Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C., 1961.

CATFISH:

"Arkansas Studying Commercial Feeding of Channel Catfish," article, Feedstuffs, vol. 33, November 18, 1961, p. 77, printed. Feedstuffs, Miller Publishing Co., 2501 Wayzata Blvd., Minneapolis 5, Minn.

"A Comparison of Spawning Environments for the Channel Catfish," by J. R. Snow, article, Proceedings of the Fourteenth Annual Conference, Southeastern Association of Game and Fish Commissioners, pp. 137-142, printed. Southeastern Association of Game and Fish Commissioners, Columbia, S. C., 1960.

"Preliminary Results on the Production and Spawning of White Catfish in Ponds," by E. E. Prather and H. S. Swingle, article, Proceedings of the Fourteenth Annual Conference, Southeastern Association of Game and Fish Commissioners, pp. 143-145, printed. Southeastern Association of Game and Fish Commissioners, Columbia, S. C., 1960.

"Spawning of Channel Catfish by Use of Hormone," by Ben A. Nelson, article, Proceedings of the Fourteenth Annual Conference, Southeastern Association of Game and Fish Commissioners, pp. 145-148, printed. Southeastern Association of Game and Fish Commissioners, Columbia, S. C., 1960.

CHAR:

"Age and Growth of the Freshwater Stage of Anadromous Char *Salvelinus alpinus* (L.)," by Jorgen Nielsen, article, Meddelelser om Gronland, vol. 159, no. 8, 1961, printed in Danish. Meddelelser om Gronland, C. A. Reitzel, Copenhagen, Denmark.

CHITIN:

"Structure of Chitin," by N. E. Dweltz, article, Biochimica et Biophysica Acta (International Journal of Biochemistry and Biophysics), vol. 44, 1960, pp. 416-435, printed. Elsevier Publishing Co., P. O. Box 211, Amsterdam, Holland.

CLAMS:

"Clam Poison. II--Purification of Clam Poison Residues of Low Toxicity by a Heavy-Paper Technique," by R. A. B. Bannard and A. A. Casselman, article, Canadian Journal of Chemistry, vol. 39, October 1961, pp. 1879-1887, printed. National Research Council, Ottawa 2, Canada.

"Marine Sterols. IX--Biosynthesis of 24-Methylenecholesterol in Clams," by U. H. M. Fagerlund and

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D. R. Idler, article, Canadian Journal of Biochemistry and Physiology, vol. 39, September 1961, pp. 1347-1355, printed. Division of Administration, The National Research Council, Sussex St., Ottawa, Canada.

COD:

"Chemical Characteristics of Salted Cod," by A. Cardin and others, article, Journal of the Fisheries Research Board of Canada, vol. 18, September 1961, pp. 851-858, printed. Queen's Printer and Controller of Stationery, Ottawa, Canada.

The Effect of Linoleic and Linoleic Acids on the Solubility of Cod Actomyosin (Paper read at FAO International Conference on Fish in Nutrition, Washington D. C., 19-27 September 1961), by F. J. King, M. L. Anderson, and M. A. Steinberg, printed in English with French and Spanish abstracts. Fisheries Division, Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, 1961.

"The Light Pickle Salting of Cod," by P. B. Crean, article, Journal of the Fisheries Research Board of Canada, vol. 18, September 1961, pp. 833-844, printed. Queen's Printer and Controller of Stationery, Ottawa, Canada.

"Partial Desalting of Salted Cod," by P. B. Crean, article, Journal of the Fisheries Research Board of Canada, vol. 18, September 1961, pp. 845-850, printed. Queen's Printer and Controller of Stationery, Ottawa, Canada.

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die Deutsche Hochseefischerei. IV--Die Entwicklung der Hochseefischerei in Fangtechnischer, Räumlicher und Biologischer Hinsicht. 5--Die Dampferfischerei in der Nordsee" (Biological-Statistical Studies of the German High Sea Fisheries. IV--The Development of the High Sea Fisheries in View of Catching Technique, Capacity, and Biological Considerations. 5--Steamship Fishing in the North Sea), by Johannes Lundbeck.

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The Exploitation, Scientific Investigation and Management of Halibut (HIPPOGLOSSUS STENOLEPIS Schmidt) Stocks on the Pacific Coast of North America in Relation to the Abstention Provisions of the North Pacific Fisheries Convention, International North Pacific Fisheries Commission Bulletin No. 7, 97 pp., illus., printed. International North Pacific Fisheries Commission, 6640 NW. Marine Dr., Vancouver 8, B. C., Canada, 1962. Under the provision of the International Convention for the High Seas Fisheries of the North Pacific Ocean, Japan agrees to abstain from fishing halibut in the Convention area off the coasts of Canada and the United States in which commercial fishing for halibut is being or can be prosecuted. The halibut referred to are defined as those originating along the coast of North America. The purpose of the papers contained in this bulletin was to provide information which would aid the Commission to determine annually, beginning in 1958, whether the halibut stocks in question continued to meet the requirements for abstention given in the Convention. They were submitted to the Commission between 1956 and 1960 by representatives of the Governments of Canada, Japan, and the United States.

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of the International Whaling Commission in London, July 2-6, 1962. Included are discussions of the 1961/62 Antarctic whaling season results, actions taken during the meeting, and financial operations of the Commission. The catch of blue whales will once more be limited to 15,000 units during the 1962/63 season. The length of the open season for Antarctic pelagic whaling will again be from December 12 to April 7.

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Modern Developments in Japanese Fisheries (Paper read at Visserij Congres, Scheveningen, Netherlands, 31 May-2 June 1961), by N. Fujinami, printed. Fisheries Division, Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, 1961. Describes the fishing industry in Japan. According to the author, the total annual catch is 5,875,000 metric tons which is often eaten raw, requiring that the fish must be strictly fresh. Over the last decade fish consumer habits in Japan have undergone a drastic change and the fishing industry is looking for new products to meet the new requirements (fish sausages). Numerous fishing companies are establishing their own chicken or mink farms so as to be able to use fish offal. The Japanese fishing boats operate wherever fishing can be done profitably, ships operating as far afield as the Atlantic (tuna fisheries). The development of trawlers has in the past few years been strongly stimulated by the operation of stern factory trawlers. This enabled extension of operation from the East and South China Seas to the Atlantic. The author also discusses research, construction of fishing vessels, freezing aboard ship, earnings of Japanese fishermen, and extension of the Japanese market.

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automatically all the functions necessary for rapid and accurate temperature, thermometric depth, and wire angle depth calculations in the processing of oceanographic data. The entire program consists of two sections: the actual operating instructions necessary for the calculations and a set of tables which contain all of the required thermometer correction factors. Includes a generalized flow diagram of automatic temperature and depth calculations on the IBM 650 computer, explanation of formulas, data preparations, storage assignment, and discussion of tables. The appendix, which makes up a large portion of the report contains sample stations, program listings, sample tables, and a detailed flow diagram.

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"Participation, Production and Price Conditions in the Small-Whale Fisheries 1938-1960," by J. L.

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Holm, article, Norsk Hvalfangst-Tidende (The Norwegian Whaling Gazette), vol. 51, no. 6, June 1962, pp. 225-240, 242, 244, 246, 249, illus., printed in Norwegian and English. Hvalfangerforeningen, Sandefjord, Norway. Discusses prices, production, and participation in the Norwegian small whale fisheries during the periods 1938-1947, 1948-1953, and 1954-1960. In 1949 concessions were granted to 384 whalers and the production of whale meat became so large that steps had to be taken to restrict the number of concessions. The number of concessions issued was gradually reduced and stabilized at about 200 per annum since 1954. The whaling season was restricted to 6 months a year beginning in 1952. In 1955, regulations provided that the taking of small whales in waters north of 70° N. latitude should terminate June 30. Since the shore stations' production declined after 1952, the small-whale fishermen have increased their whaling intensity, so that the average annual production of

the two combined has remained at about 6,400 tons of whale meat. The wholesale price of little piked whale meat had a regulative influence on the total production of whale meat between 1949 and 1957. Since 1958 the wholesale prices have risen unusually high, while the production has been below the average.

WORLD TRADE:

"World Export Regulations," article, International Commerce, vol. 68, no. 3, July 2, 1962, pp. 8-11, printed, single copy 35 cents. Bureau of International Programs, U. S. Department of Commerce, Washington 25, D. C. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) This tabulation of the import and exchange permit requirements of foreign countries was prepared as an aid to exporters. The regulations apply primarily to goods of United States origin and to other goods payable in United States dollars. This list was revised as of June 1, 1962.



FISH CURING ON NORTH AMERICAN NORTH ATLANTIC COAST DATES BACK TO 1500

"The fish-curing industry of the North Atlantic coast of North America dates back at least to the year 1500. There are authentic records of fish-curing activities as of that period, and legends of activities at much earlier date. An extensive fish-curing industry along the North Atlantic coast of North America was carried on for more than one hundred years before there was any permanent settlement. As early as the year 1580 more than 300 ships from Europe were salting cod in this area. Newfoundland, 'the oldest British colony,' owes its origin to the fish-curing industry which is still the dominant factor in the economic life of that country."

--Principles and Methods in the
Canning of Fishery Products,
Research Report No. 18 (page 2),
U. S. Fish and Wildlife Service

Editorial Assistant--Ruth V. Keefe

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