



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

Number	Title
CFS-1757	- Massachusetts Landings, November 1957, 5 pp.
CFS-1764	- New York Landings, 1957 Annual Summary, 8 pp.
CFS-1770	- North Carolina Landings, February 1958, 3 pp.
CFS-1771	- South Carolina Landings, February 1958, 2 pp.
CFS-1772	- Mississippi Landings, January 1958, 2 pp.
CFS-1774	- Fish Meal and Oil, February 1958, 2 pp.
CFS-1775	- Georgia Landings, February 1958, 2 pp.
CFS-1776	- New Jersey Landings, February 1958, 3 pp.
CFS-1777	- Shrimp Landings, December 1957, 6 pp.
CFS-1778	- Frozen Fish Report, March 1958, 8 pp.
CFS-1780	- Texas Landings, January 1958, 3 pp.
CFS-1781	- Louisiana Landings, January 1958, 2 pp.
CFS-1783	- Alabama Landings, January 1958, 2 pp.
CFS-1787	- Mississippi Landings, February 1958, 2 pp.
CFS-1788	- California Landings, December 1957, 4 pp.
CFS-1789	- Fish Stick Report, January-March 1958, 2 pp.
CFS-1790	- Rhode Island Landings, February 1958, 3 pp.
CFS-1792	- Alabama Landings, February 1958, 2 pp.
CFS-1797	- North Carolina Landings, March 1958, 3 pp.
CFS-1800	- New Jersey Landings, March 1958, 3 pp.
CFS-1801	- Ohio Landings, March 1958, 2 pp.
CFS-1802	- Mississippi Landings, 1957 Annual Summary, 3 pp.
CFS-1803	- California Landings, January 1958, 4 pp.
CFS-1805	- Maine Landings, March 1958, 3 pp.
CFS-1809	- Florida Landings, March 1958, 6 pp.

Firms Canning, 1957 (Revised):

- SL-102 - Maine Sardines (including sea herring), 2 pp.
 SL-102A - Pacific Sardines, 1 p.
 SL-104 - Mackerel, 1 p.
 SL-108 - Salmon Eggs for Bait, 1 p.
 SL-116 - Food for Animals from Marine Animal Products, 2 pp.
 SL-120 - Anchovies, 1 p.

FL - 393 - Fisheries of the United States and Alaska, 1957 (A Preliminary Review), by E. A. Power, 42 pp., April 1958. A preliminary review of commercial fishery activities in 1957. Reports that the total catch of United States and Alaska fishermen in 1957 was 4.75 billion pounds, a decrease of 10.5 percent as compared with the previous year. The 1957 catch had a total estimated ex-vessel value of about \$351 million--about \$18 million less than 1956, despite the fact that the average ex-vessel price per pound for the 1957 catch increased to 7.39 cents as compared with 7.03 cents per pound for 1956. The decline of the 1957 catch resulted from decreases in both edible and industrial fish catches. The total 1957 catch of industrial fish was 2.23 billion pounds as compared with 2.58 billion pounds for the previous year. Menhaden, the principal industrial species, decreased 400 million pounds or 20 percent in 1957. The total catch of edible fish in 1957 amounted to 2.52 billion pounds as compared with 2.67 billion pounds in 1956. There were decreases in the catch of cod, haddock, Pacific halibut, Atlantic ocean perch, salmon, tuna, oysters, and shrimp. Record increases, however, were made in the Dungeness crab harvest and the whiting catch. Small increases occurred in the catch of herring, flounders, mackerel, pollock, scallops, and lobsters. The fishing boats employed 142,000 men in 1957 as compared with 144,000 in 1956. Employment in shore establishments was estimated at 100,000. The number of boats used totaled approximately 84,000. Of the total catch, 30 percent or 1.4 billion pounds was sold as fresh or frozen fish, 24 percent was canned, and 2 percent was cured. Byproducts--oil and meal--accounted for 2.1 billion pounds or 44 percent of the catch. In addition to data on production, processing, prices, and supplies of the domestic catch, this leaflet contains information on the fishery imports and exports, and world fisheries.

FL - 449 - Organizations and Officials Concerned with the Commercial Fisheries, 1958, 13 pp., March 1958.

SSR-Fish. No. 236 - Downstream Movement of Salmonids at Bonneville Dam, by Joseph E. Gauley, Raymond E. Anas, and Lewis C. Schlotterbeck, 16 pp., illus., January 1958.

SSR-Fish. No. 237 - Food of Salmonid Fishes of the Western North Pacific Ocean, by George H. Allen and William Aron, 15 pp., illus., January 1958.

SSR-Fish. No. 241 - Hull Insurance and Protection and Indemnity Insurance of Commercial Fishing Vessels, by Warner C. Danforth and Dr. Chris A. Theodore, 348 pp., December 1957. The problems of the commercial fishing industry with marine insurance are complicated and controversial. There have been complaints from the fishing industry, particularly in New England, that the cost of insurance has risen substantially. On the other hand, many insurance firms have withdrawn from the field because of disastrous loss experience. This survey is an inquiry into the situations, forces, conditions, and factors which have given rise to the hull and protection and indemnity insurance problem in the New England, Gulf of Mexico, and California areas. On the basis of the information assembled, a number of conclusions are made which throw light on the fishing industry's insurance problems. The report consists of two parts each in a separate publication. A summary of conclusions and recommendations, an extensive discussion of the insurance problem and two appendices which contain the basic tables and a summary of sampling techniques are included in this publication. A supplement contains a description of accidents, the owner's reasons for insurance coverage, and his occupational activities together with comments made by the interviewed vessel owners on the hull and protection and indemnity insurance problems.

SSR-Fish. No. 251 - Sardine Eggs and Larvae and Other Fish Larvae, Pacific Coast, 1956, by Elbert H. Ahlstrom, 90 pp., illus., January 1958.

SSR-Fish. No. 253 - Sodium Cyanide as a Fish Poison, by W. R. Bridges, 16 pp., February 1958.

SSR-Fish. No. 254 - Foreign Shrimp Fisheries (Other than Central and South America), 75 pp., illus., March 1958. The growth of the domestic shrimp industry since World War II and a growing interest in sources of supplies have created a demand for detailed information regarding the shrimp fisheries of foreign countries. This report discusses the shrimp fisheries of Canada and Greenland, the Caribbean area, Europe, North Africa and the Near East, Asia, Australia, and Oceania. The report states that "The largest foreign shrimp fisheries are in Asia. Here, millions of fishermen, using primitive methods for the most part, fish for shrimp and other species of fish and shellfish. The individual fisherman's daily catch is often poor by Western standards, although the aggregate catch may be very large. A modest start has been made in recent years to modernize shrimp fishing and processing methods in some Far Eastern countries, notably in Pakistan and India. European waters support long-established and important shrimp fisheries. In general, the shrimp are small and catches are sufficient only for Euro-

pean markets. Except for the Mediterranean area, no information has been assembled about shrimp fisheries for African countries. For most African nations, however, the shrimp fisheries are unimportant."

Sep. No. 511 - Damariscotta (Maine) Alewife Fishery.

Sep. No. 512 - The Blue Crab and its Fishery in Chesapeake Bay: Part I - Reproduction, Early Development, Growth, and Migration.

Sep. No. 513 - Research in Service Laboratories (June 1958): Contains these articles--"Frozen Packaged Halibut Voluntary Standards Discussed at Meeting;" "Progress in Fish-Oil Research;" "Report on Development of Fungicides from Fish Oil;" and "Technical Note No. 44 - Industry Tests Show Brine-Frozen Haddock to be of Good Quality."

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

California Fishery Products Monthly Summary, March 1958, 11 pp. (Market News Service, U. S. Fish and Wildlife Service, Post Office Bldg., San Pedro, Calif.) California cannery receipts of raw tuna and tunalike fish, herring, mackerel, anchovies, and squid; pack of canned tuna, herring, mackerel, anchovies, and squid; market fish receipts at San Pedro, San Monica, San Diego, and Eureka areas; California imports; canned fish and frozen shrimp prices; trends in the California fisheries; ex-vessel prices for cannery fish; American Tuna Boat Association tuna auction sales; for the month indicated.

(Chicago) Monthly Summary of Chicago's Fresh and Frozen Fishery Products Receipts and Wholesale Market Prices, April 1958, 12 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; fresh-water fish, shrimp, and frozen fillet wholesale market prices; fisheries trends at Chicago; for the month indicated.

Gulf Monthly Landings, Production, and Shipments of Fishery Products, April 1958, 5 pp. (Market News Service, U. S. Fish and Wildlife Service, 609-611 Federal Bldg., New Orleans 12, La.) Gulf States shrimp, oyster, finfish, and blue crab landings; crab meat production; LCL express shipments from New Orleans; and wholesale prices of fish and shellfish on the New Orleans French Market; for the month indicated.

Monthly Summary of Fishery Products in Selected Areas of Virginia, North Carolina, and Maryland, April 1958, 4 pp. (Market News Service, U. S. Fish and Wildlife Service, 18 So. King St., Hampton, Va.) Fishery landings and production for the Virginia areas of Hampton Roads, Lower Northern Neck, and Eastern Shore; the Maryland areas of Crisfield, Ocean City, and Cambridge; and the North Carolina areas of Atlantic, Beaufort, and Morehead City; together with cumulative and comparative data; for the month indicated.

New England Fisheries--Monthly Summary, April 1958, 21 pp. (Market News Service, U. S. Fish and Wildlife Service, 10 Commonwealth Pier, Boston 10, Mass.) Reviews the principal New

England fishery ports, and presents food fish landings by ports and species; industrial fish landings and ex-vessel prices; imports; cold storage stocks of fishery products in New England warehouses; fishery landings and ex-vessel prices for ports in Massachusetts (Boston, Gloucester, New Bedford, Provincetown, and Woods Hole), Maine (Portland and Rockland), Rhode Island (Point Judith), and Connecticut (Stonington); frozen fishery products prices to primary wholesalers at Boston, Gloucester, and New Bedford; and landings and ex-vessel prices for fares landed at the Boston Fish Pier and sold through the New England Fish Exchange; for the month indicated.

(New York) Monthly Summary - Receipts of Fishery Products at the New York City Wholesale Salt-Water Market, March 1958, 15 pp.; April 1958, 13 pp. (Market News Service, U. S. Fish and Wildlife Service, 155 John St., New York 38, N. Y.) Receipts in the salt-water section of the Fulton Fish Market by species and by states and provinces; for the months indicated.

(Seattle) Monthly Summary - Fishery Products, February 1958; March 1958; 4 pp. each. (Market News Service, U. S. Fish and Wildlife Service, Pier 42 South, Seattle 4, Wash.) Includes landings and local receipts, with ex-vessel and wholesale prices in some instances, as reported by Seattle and Astoria (Ore.) wholesale dealers; also Northwest Pacific halibut landings; for the months indicated.

Receipts and Prices of Fresh and Frozen Fishery Products at Chicago, 1957, by G. A. Albano, 60 pp., processed, May 1958. (Available free from the Market News Service, U. S. Fish and Wildlife Service, 565 W. Washington St., Chicago 6, Ill.) In the first part of this report, the author presents an analysis of receipts of fishery products at Chicago, and discusses sources of receipts, methods of transportation, receipts by months, receipts by species and varieties, lake trout and whitefish fishery and receipts, U. S. imports of frozen fillets, U. S. imports of fresh and frozen fresh-water fish from Canada, cold-storage inventories, and trends and developments in 1957. Also included is a table giving the names, classifications, and approximate weights of certain fishery products as used in the Chicago wholesale markets. The second section presents statistical data on fresh and frozen fishery products receipts at Chicago by species and by states and provinces of origin, states and provinces by species, species by months, states and provinces by months, totals by species, and totals by states and provinces. Receipts are tabulated by method of transportation (truck, express, and freight). A table shows the monthly range of wholesale prices of some of the leading varieties of fresh and frozen fishery products handled in the Chicago market.

Sodium and Potassium Content of 34 Species of Fish, by Claude E. Thurston, 4 pp., printed. (Reprinted from Journal of the American Dietetic Association, vol. 34, no. 4, April 1958.)

Fishery Technological Laboratory, Bureau of Commercial Fisheries, U. S. Fish and Wildlife Service, Seattle, Wash. The objective of the work reported in this paper was to determine the content of sodium in as wide a variety as possible of the principal species of fresh- and salt-water fish. Potassium values were included for comparative purposes because considerable attention now is being directed to the sodium-potassium balance. The collection and preparation of samples, experimental procedure, and results of the study are discussed. Thirty-four species of fresh- and salt-water fish were analyzed for sodium and potassium content. Sodium content of the individual species of salt-water fish ranged from 35 to 96 mg. per 100 gm. fish and averaged 68 mg. That for individual species of fresh-water fish ranged from 48 to 84 mg. per 100 gm. fish with an average of 56 mg. Large differences were noted in the sodium values for similar species from various geographic areas. Albacore tuna and Lake Huron herring had the lowest content of sodium of the species analyzed. Even the species having the highest individual sodium values would be well suited for inclusion in low-sodium diets, since no specimens contained as much as 100 mg. sodium per 100 gm. fish. The ratio of the sodium content to that of potassium was quite similar in both the fresh- and salt-water fish, being approximately one part by weight of sodium to five parts by weight of potassium.

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High-Speed Plankton Sampler, by Elbert H. Ahlstrom, John D. Isaacs, James R. Thraillkill, and Lewis W. Kidd, Fishery Bulletin 132 (From Fishery Bulletin of the Fish and Wildlife Service, vol. 58), 31 pp., illus., printed, 50 cents, 1958.

Factors Causing Decline in Sockeye Salmon of Karluk River, Alaska, by George A. Rounsefell, Fishery Bulletin 130 (From Fishery Bulletin of the Fish and Wildlife Service, vol. 58), 90 pp., illus., printed, 55 cents, 1958.

Laws and Regulations for Protection of the Commercial Fisheries of Alaska, 1958, Regulatory Announcement 56, 38 pp., printed, March 1958, 25 cents. This publication is divided into two sections. One section contains laws for the protection of the commercial fisheries of Alaska and related information, including the authority for regulation, rules regarding oyster culture, Bristol Bay residence requirements, regulation of salmon escapement, fishing-gear restrictions, exceptions to weekly closed seasons, etc. The second section contains all the regulations governing the commercial fisheries in Alaska. These 1958 regulations supersede the regulations published in Regulatory Announcement 51 which became effective April 5, 1957. They have been recodified, and as a result they contain many minor changes as well as the seasonal changes for 1958.

MISCELLANEOUS PUBLICATIONS

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ADVERTISING:

White Fish Authority Publicity Campaign, 1958/59, 8 pp., illus., processed. White Fish Authority, Tilbury House, Petty France, London, England. A brief description of the forthcoming advertising campaign planned by the United Kingdom's White Fish Authority to promote the "fishmonger" and the "man in the fried fish shop." Includes six samples of the advertisements that will be used in 75 evening newspapers in England, Scotland, Wales, and North Ireland.

AUSTRALIA:

Australian Journal of Marine and Freshwater Research, vol. 9, no. 1, March 1958, 158 pp., illus., printed. Commonwealth Scientific and Industrial Research Organization, 314 Albert St., East Melbourne, C. 2, Victoria, Australia. Contains, among others, the following articles: "Observations on the Biology of the Greentail Prawn, *Metapenaeus mastersii* (Haswell)--Crustacea Decapoda; Penaeidae," by W. Dall; and "Reproduction in Australian Pearl Oysters (*Lamellibranchia*)--Part I, *Pinctada albina* (Lamarck): Primary Gonad Development and Part II, *Pinctada albina* (Lamarck): Gametogenesis," by D. J. Tranter.

CANADA:

Analyse Comptable des Activités des Pêcheurs Côtiers, Gaspésie, Québec, 1949-1953 (Statistical Analysis of the Activities of the Coastal Fisheries, Gaspésie, Québec, 1949-1953), by John Proskie and R. G. Gosselin, Etude sur l'Industrie Primaire, vol. 1, no. 3, 35 pp., illus., printed in French. Ministère des Pêcheries du Canada, Ottawa, Canada, 1958.

"Canadian Fish Finds Worldwide Markets," by T. R. Kinsella, article, Foreign Trade, vol. 107, no. 8, April 13, 1957, pp. 2-5, illus., printed, single copy 20 Canadian cents. The Queen's Printer, Government Printing Bureau, Hull, Canada. Details are given on the production and export of fishery products in Canada during 1956. Sales of Canadian fish to foreign countries during 1956 reached a record C\$133.7 million, despite a small salmon pack and drop in salt-fish shipments. The pattern of distribution followed the usual trend, with the United States taking about half of the output. Fresh and frozen fish was Canada's leading seller, reaching a value of C\$78 million; lobster shipments totaled over C\$20.5 million.

Fisheries Statistics of Canada (Nova Scotia), 1956, 93 pp., printed in French and English, 50 Canadian cents. Queen's Printer and Controller of Stationery, Ottawa, Canada, 1958. Consists of tables giving the value of fish and shellfish landed in Nova Scotia, 1949-1956, by species; the quantity and value by species and fisheries districts of landings and fishery products, 1955-56; and capital equipment employed and number

of persons engaged in the primary operations by fisheries districts, 1955-56.

Progress Reports of the Pacific Coast Stations, no. 110, 20 pp., illus., printed. Fisheries Research Board of Canada, Technological Station, 898 Richards St., Vancouver 2, B. C., Canada, April 1958. Contains, among others, the following articles: "Dogfish," by H. L. A. Tarr; and "Some Recent Experiments on Preservation of Fish with Tetracycline Antibiotics," by B. A. Southcott, R. Moyer, E. G. Baker, and H. L. A. Tarr.

Summary of Fisheries Statistics of British Columbia, 1957 (Preliminary), 13 pp., processed. Canadian Department of Fisheries, Vancouver, Canada, April 8, 1958. A preliminary review of fisheries statistics for British Columbia for 1957, presenting the total value of fish and by-products, and fishery trends. Statistical tables cover the marketing of salmon by species; landed and marketed value of salmon by method of process, and by species; production and utilization of salmon by species; canned salmon pack by species; total herring landed and marketed and byproducts; halibut landed and marketed; crab and shrimp landings; landings and value of all products marketed of the most important species; landed and marketed value of fish and fish products; landings and manufactured products marketed; summary of liver and viscera production; salmon pack by area where canned; inventories of vessels, and gear and equipment used in primary fishery; and the number of fishermen licensed in British Columbia.

COD:

"The Omnivorous Codfish," by Bernard L. Gordon, article, Nature Magazine, vol. 51, no. 4, April 1958, pp. 205-207, illus., printed, single copy 50 cents. American Nature Association, 1214 16th St. NW., Washington 6, D. C. The cod was an important item in the economy of the United States and Canada in earlier days, and although there has been a marked decrease in the cod population on the Grand Banks, millions of pounds of cod still are landed annually. This article tells where the cod fishery is located, and describes briefly the life history of the cod past and present methods of capture, and methods of preservation.

COMMISSIONS:

Sixteenth Annual Report of the Atlantic States Marine Fisheries Commission (to the Congress of the United States and to the Governors and Legislators of the Fifteen Compacting States), 79 pp., printed. Atlantic States Marine Fisheries Commission, 22 West First St., Mount Vernon, N. Y., April 1958. Includes a report on the state of the Commission and development of the new committee system. Contains reports on the following sections: North Atlantic--covering quality controls and research on clams, Connecticut River shad, striped bass, and bluefish; Middle Atlantic--presenting the results of investigations of marshlands and estuarine waters, dams on the Delaware River, and greysea trout (weakfish); Chesapeake Bay--including reports on the conflicts of Virginia and Maryland over the Potomac River fisheries, blue crab research, and industrial pollution; and South Atlantic--covering differences in shrimp

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fishing privileges, exploratory fishing, reorganization of the U. S. Fish and Wildlife Service, and Tortugas shrimp fishing problems. Appendices cover, among other items, state legislation needed, reports on the technological and biological sections, summaries of clam and shad investigations, and results of the striped bass program.

CRABS:

"Life-History and Biology of the Oyster Crab, *Pinnotheres ostreum*, Say," by Aage Møller Christensen and John J. McDermott, article, *The Biological Bulletin*, vol. 114, no. 2, April 1958, pp. 146-179, illus., printed, single copy \$2.50. *The Biological Bulletin*, Marine Biological Laboratory, Woods Hole, Mass.

Notes on a Non-Commercial Crab of the Genus *CALLINECTES* in Trawl Catches in South Carolina, by G. Robert Lunz, *Contributions from Bears Bluff Laboratories* No. 27, 17 pp., illus., printed. Bears Bluff Laboratories, Wadmalaw Island, S. C., May 1958. The results of a study concerning the noncommercial crab of the *Callinectes* family which is abundant in trawl catches in South Carolina. The author states that "Regardless of what species this small noncommercial crab turns out to be, the questions posed by its abundance probably are the same, for it is a small crab which only seldom reaches the legal marketable length in South Carolina." This report describes the spawning; sex ratio; and temperature, salinity, and depth preference of the noncommercial *Callinectes*. The author states that "The abundance of this noncommercial crab has presented a management problem."

DENMARK:

Årsberetning fra Fiskeriministeriets Forsøgslaboratorium for 1957 (Annual Report to the Danish Fishing Industry for 1957), 44 pp., illus., printed in Danish with English translation of the main experimental results. Fiskeriministeriets Forsøgslaboratorium, Copenhagen, Denmark, 1958. Describes the results of the following experiments: oil in herring and sand eels; food value of fish for animal feeding; chilling of fish; antibiotics as a means for preserving fish; preservation with aureomycin ice; freezing fish and shellfish, such as trout, mackerel fillets, Norwegian lobster, and sauces; smoked fish; semi-preserved caviar; canned cod roe; aluminum cans; fish meal; and fish silage.

DIRECTORIES:

A Directory of White Fish Exporters in the United Kingdom, 28 pp., printed. White Fish Authority, Tilbury House, Petty France, London SW1, England, March 1958. A directory of white fish exporters containing a list of fish names in English, French, German, and Spanish; a table of weights as quoted in the directory; classification of exporters by varieties sold and by ports or other centers of distribution; and lists of brand names and trade associations. A Code of Practice for the freezing of fish, dealing with the processing, packing, storage, and sale of quick-frozen fish, is included as an appendix. The firms that comply with the Code are indicated in the directory.

EAST AFRICA:

East African Fisheries Research Organization, 1956/1957, 47 pp., printed. East African Fisheries Research Organization, P. O. Box 343, Jinja, Uganda, 1958. This report covers the period from July 1956 to December 1957, and contains a general account of the scientific work of the Organization, including fishery biology and growth studies. Reports on the following investigations are included: growth rate of *Tilapia* and *Mormyrus* in Lake Victoria; and the food of young *Tilapia*, *Protopterus*, *Clarias*, and *Mormyrus*. Includes, among others, a paper entitled "On the Growth of *Tilapia esculenta* (Graham)," by D. J. Garrod.

FLORIDA:

Check List of the Florida Game and Commercial Marine Fishes (Including Those of the Gulf of Mexico and the West Indies, with Approved Common Names), by C. Richard Robins, Educational Series No. 12, 46 pp., printed. State Board of Conservation, Tallahassee, Fla., March 1958. This is a check list of the game and commercial marine fish of Florida and the West Indies with a standardization of common names. Some of the reasons are given for the application of different names to a single species of fish. Thus, the basis for the selection of many of the names used in this list may be better understood. A selected bibliography of books on the identification of Florida fish is also included.

FOOD AND AGRICULTURE ORGANIZATION:

The Economics of Fisheries, edited by Ralph Turvey and Jack Wiseman, 248 pp., illus., printed. Food and Agriculture Organization of the United Nations, Rome, Italy, 1957. Proceedings of a Round Table organized by the International Economic Association and held in Rome in September 1956, sponsored by the Food and Agriculture Organization of the United Nations. The problems examined in the background papers of this Round Table and discussions cover only some of the economic aspects of fisheries and fish marketing. Two papers consider cost conditions in fishing, one with particular reference to wages. The problem of fishery regulation is treated in no less than three papers, one of which refers to a particular case--the North Sea. Marketing is the subject of two papers, both marketing at the port and distribution inland being examined. In addition, there is a discussion of many of the same problems with particular reference to poor countries. Lastly the problems of Iceland's fisheries are considered. The following papers and discussions are included: "A Note on Costs in Fisheries," by G. M. Gerhardsen; "Fishermen's Remuneration," by H. Zoetewij; "Optimal Utilization and the Control of Fisheries," by Anthony Scott; "Obstacles to Agreement on Control in the Fishing Industry," by H. Scott Gordon; "Special Problems of Fisheries in Poor Countries," by E. S. Kirby and E. F. Szczepanik; "The Control of North Sea Fisheries," by G. Lienesch; "Port Markets," by Ian Bowen; "The Marketing of Fishery Products in the U. S. A.," by Ralph Cassady, Jr., and "Fish Marketing in Iceland with Special Reference to Foreign Trade," by Olafur Bjornsson.

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FRANCE:

Poissons de Mer Frais (Fresh Salt-Water Fish), 105 pp., illus., in color, printed in French. Direction Generale des Prix et des Enquetes Economiques, 41, Quai Branly, Paris VII, France. (Comite National de Propagande Pour La Consommation du Poisson, 11 Rue Anatole-de-la-Forge, Paris XVII.) A guide for the identification of the principal salt-water fish consumed in France, containing colored plates of each species. Includes a list of characteristics for determining the extent of freshness of salt-water fish. Also presents a list of the common fish names in French, German, English, Danish, Dutch, Norwegian, and Swedish, with corresponding scientific names.

FUNGI:

Literature on Halophilous and Halolimnic Fungi, by T. W. Johnson, Jr., and Samuel P. Meyers, Contribution No. 190, 30 pp., printed. (Reprinted from Bulletin of Marine Science of the Gulf and Caribbean, vol. 7, no. 4, pp. 330-359, December 1957.) The Marine Laboratory, University of Miami, Virginia Key, Miami 49, Fla. A bibliography of references to publications on marine and brackish-water fungi, together with annotations on some articles, is presented. The references are world-wide in scope, and include all phases of marine mycology.

GENERAL:

Federal Aid in Fish and Wildlife Restoration (Annual Report on Dingell-Johnson and Pittman-Robertson Programs for the Fiscal Year Ending June 30, 1957), 97 pp., illus., printed. Wildlife Management Institute, Wire Bldg., Washington 5, D. C.

How to Know the Freshwater Fishes, by Dr. Samuel Eddy, 259 pp., illus., printed. Wm. C. Brown Co., Dubuque, Iowa, 1957. Includes keys for identification of all the fish of the United States which are regarded as strictly fresh-water species, and also includes a number of marine species which often enter fresh water. The number of marine fish which may enter the mouth of rivers is so great that only part of them are included here. Also covers some facts about fish, such as distribution and conditions for existence, activities, and reproduction; and structure of a fish.

Wise Use of the Food Dollar--Meeting 1, Plan Before Buying; and Meeting 2, Know Your Protein Foods: Meat and Fish, by Irene H. Wolgamot, Leaflets 215 and 216, respectively, 8 pp. each, printed. Extension Service, College of Agriculture, Rutgers University, New Brunswick, N. J., October 1957. One leaflet is a guide for meal planning and buying. It discusses the importance of the four basic food groups (in which fish is included) and shows how much food is needed from each group each day for good health. It also suggests how to make the most of food by proper storage and cooking, etc. The second leaflet is a guide to buyers of meat and fish. It describes the market forms of fish, signs of freshness, how much to buy for each serving, and how to cook fish.

JAPAN:

Bulletin of Hokkaido Regional Fisheries Research Laboratory, No. 17, March 1958, 174 pp., illus., printed in Japanese with summaries in English. Hokkaido Regional Fisheries Research Laboratory, Yoichi, Hokkaido, Japan. Contains, among others, the following papers: "Studies on Larval Development and Fishery Biology of King Crab, *Paralithodes camtschatica* (Tilesius)," by Sakae Sato; "A Study of Qualities with Migratory Fish. I. Ultraviolet Absorption Spectra in Relation to the Deterioration due to the Oxidation of Oil with Mackerel Meal," by Katsutoshi Miwa, Echiko Kinoshita, and Yoshikazu Sato; "Studies on the Preservation of Marine Products--III. On the Spore-Forming Anaerobic Bacteria in Fish Canning. No. 1," by Hiroshi Oshima, Shinichiro Hagiwara, and Shoji Matumoto; and "Studies on the Preservation of Marine Products--IV. On the Spore-Forming Anaerobic Bacteria in Fish Canning. No. 2," by Hiroshi Oshima, Shinichiro Hagiwara, Masatoki Sasajima, and Motonobu Yokoseki.

LAW OF THE SEA:

Background Material on the Activities in the Organization of American States Relating to the Law of the Sea (Prepared for Submission to the United Nations Conference, Geneva, Switzerland, 1958), 47 pp., processed. Department of International Law, Pan American Union, Washington, D. C., December 1957.

LOBSTERS:

Lobster Storage, by H. J. Thomas, 20 pp., illus., printed. Her Majesty's Stationery Office, Edinburgh, Scotland, 1958. A guide to lobster storage, devoted mainly to medium and long-term storage over periods of several months, and describing the factors involved and methods adopted in the United Kingdom and elsewhere. Covers factors affecting storage--siting and construction of storage plants, water conditions, and handling of lobsters; installations--floating boxes and welled boats, pools, lobster ponds, shore-based installations, and inland storage; and marketing. A brief list of reference publications is also included.

Practical Hints for Lobster Fishermen, 16 pp., illus., printed. Her Majesty's Stationery Office, Edinburgh, Scotland, 1952. A guide to lobster fishing, containing data on the distribution of lobsters on the Scottish coasts, fishing seasons, equipment, bait, methods of operating creels, (pots), storage boxes and ponds (pounds), handling of lobsters, immature and unmarketable lobsters, packing and marketing, cooperative arrangements, scientific investigations, and information service offered by the Scottish Home Department. Packing materials recommended are wood wool, wood shavings, peat litter, and sawdust. States that seaweed should not be used as it heats up and often results in losses. Four photographic plates show two views of a lobster pot, a male lobster, and a female berried lobster. A description and life history of the lobster is included as an appendix.

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MARINE BORERS:

Marine Borer Investigations (Annual Report 1957), 36 pp., illus., processed. The Marine Laboratory, University of Miami, Coral Gables, Fla. This report presents the results of investigations conducted to develop an efficient, dependable wood preservative treatment for protection against marine borers. Creosote, which serves as an adequate wood preservative in temperate regions, is not very adequate in tropical and subtropical areas; therefore, part of the research has been devoted to the improvement of the preservative qualities of creosote. Equal effort has been devoted to the development of preservatives unrelated to creosote.

MARLINS:

On the Biology of the Atlantic Marlins, MAKAIRA AMPLA (Poey) and MAKAIRA ALBIDA (Poey), 48 pp., illus., printed, \$1. (Reprinted from Bulletin of the American Museum of Natural History, vol. 114, article 5, pp. 373-416, text figures 1-14, plates 75-82, tables 1-7.) American Museum of Natural History, New York, N. Y., March 24, 1958. Contains five separate papers, as follows: "Scales of the Atlantic Species of Makaira," by Francesca R. LaMonte; "Notes on the Alimentary, Excretory, and Reproductive Organs of Atlantic Makaira," by Francesca LaMonte; "Relative Weights of Some Viscera in the Atlantic Marlins," by Louis A. Krumholz; "Some Foods of Marlins near Bimini, Bahamas," by Louis A. Krumholz and Donald P. DeSylva; and "Juvenile Blue Marlin, Makaira ampla (Poey), from Miami, Fla., and West End, Bahamas," by Donald P. DeSylva.

MALAYA:

Report of the Fisheries Division, 1956, 30 pp., printed. Ministry of Commerce and Industry, Singapore, Malaya. Presents a general review, developments, and inventory of the fishing industry in Malaya. Statistical tables cover the number of fishermen and licensed gear or boats used by area; number of licensed fishermen by type of fishery; licensed fishing boats by type of fishery; tonnage of vessels employed; powered vessels by method of fishery; arrivals and departures of licensed fishing vessels at a central control point; fishing gear; pond cultivation; fresh fish supplies; estimated production by method of fishery; Singapore imports and exports of fresh fish; marketing; monthly average daily retail fish prices for the principal species landed; Singapore imports and exports of dried and salted fish; value of imports and exports of processed marine products; and annual average prices of producer goods used in the fishing industry. An appendix to this report summarizes the annual report on the operations of the Malayan Fisheries Loan Fund.

MUSSELS:

Forsøk med Dyrking av Blåskjell (Experimental Cultivation of Sea Mussels, *Mytilus edulis*), Fiskeridirektoratets Småskrifter Nr. 4, 18 pp., illus., printed in Norwegian. A. S. John Griegs Boktrykkeri, Bergen, Norway, 1957.

NORWAY:

Lofotfiskets Iønnshomhet 1957 (Value of Lofoten Fisheries, 1957), Fiskeridirektoratets

Småskrifter Nr. 1, 41 pp., illus., printed in Norwegian. A. S. John Griegs Boktrykkeri, Bergen, Norway, 1958.

PACIFIC NORTHWEST:

Pacific Northwest Marine Fishes, 12 pp., illus., printed. State of Washington Department of Fisheries, Olympia, Wash., May 1957. Describes the most important commercial species of Pacific salmon, sole and flounder, rockfish, cod, lingcod, sea perch, halibut, smelt, the her-ring family, tuna, sablefish, sturgeon, sharks, and skates. Also presents a brief summary of salmon management problems and methods of taking fish.

PLANKTON:

Plankton of the Florida Current. IV. Factors Influencing the Vertical Distribution of Some Common Copepods, by H. B. Moore and D. L. O'Berry, Contribution No. 189, 19 pp., illus., printed. (Reprinted from Bulletin of Marine Science of the Gulf and Caribbean, vol. 7, no. 4, pp. 297-315, December 1957.) The Marine Laboratory, University of Miami, Virginia Key, Miami 49, Fla.

PORTUGAL:

Estatística das Pescas Marítimas no Continente e Ilhas Adjacentes no Ano de 1955 (Statistics of Marine Fisheries of the Mainland and Adjacent Islands, 1955), 134 pp., printed in Portuguese. Commissao Central de Pescarias, Ministerio da Marinha, Lisbon, Portugal, 1957. Presents statistics on landings by species, methods of catch, and area; catch of marine mammals; and vessels and gear.

Relatorio do Trienio 1955-1957 (Report for the Period 1955-1957), 54 pp., processed in Portuguese. Gabinete das Estudos das Pescas, Lisbon, Portugal. Describes the technical and scientific work of the Portuguese Council for Fisheries Studies and the assistance afforded the Portuguese fishing industry during the period 1955/57.

Statistical Account of Portuguese Fisheries (Resumo Estatístico das Pescas Portuguesas), Gabinete de Estudos das Pescas Publication No. 34, 50 pp., illus., printed in Portuguese and English. Gabinete de Estudos das Pescas, Lisbon, Portugal, 1957. A summary on the actual state of the Portuguese fisheries and their development, presenting complete statistical data on the fishing industry for the period 1938-1956.

PRESERVATION:

"Preservation of Food Without Heat," by E. M. Hoshall, article, Association of Food and Drug Officials U. S. Quarterly Bulletin No. 21, 1957, pp. 200-210, printed. Baltimore District, Food and Drug Administration, Baltimore, Md.

Status Report to Management on Radiation Preservation of Food, by Colonel W. D. Jackson, PB 131171, 15 pp., illus., processed, 50 cents. Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C., July 1, 1957. This document is designed to aid in analyzing the significance of the use of nuclear rays to preserve food. It describes the principal

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features of the process of radiation preservation of foods, some of the current obstacles to full utilization of the process, history of the radiation preservation process, and the current state of radiation preservation. It also tells what the successful development of the process can do for the farmer, grain broker, food processor, Public Health Officer, military logistician, grocer, consumer and housewife, and instrument manufacturer; what the various organizations in this country are doing in research on the irradiation of food; what other governments are doing; and what our government is doing. It also discusses regulations and licensing; patent structure and its application; and the effect the adoption of radiation preservation methods may have on employees, union, stockholders, and customers. A schematic drawing of the United States Army Ionizing Radiation Center is also included.

RED TIDE:

The Relationship of Total Phosphorus Concentration Sea Water to Red Tide Blooms, by Selwyn Jack Bein, Contribution No. 184, 14 pp., illus., printed. (Reprinted from Bulletin of Marine Science of the Gulf and Caribbean, vol. 7, no. 4, December 1957, pp. 316-329.) The Marine Laboratory, University of Miami, Virginia Key, Miami 49, Fla.

SALMON:

The Salmon Crisis, 12 pp., illus., printed. Washington Department of Fisheries, 4015 20th Ave. W., Seattle 99, Wash., August 1954. Briefly presents a report on the environmental changes to which a drastic depletion of the salmon resources of Washington may be attributed. Also describes salmon rehabilitation activities of the Washington Department of Fisheries.

Statistics on Salmon Sport Fishing in the Tidal Waters of British Columbia, 1957, 19 pp. text, 2 pp., maps, processed. Department of Fisheries of Canada, 1110 West Georgia Street, Vancouver 5, B. C., Canada, May 16, 1958. Presents British Columbia's commercial and sport catch of salmon by species for 1953-57, commercial catch of troll-caught salmon, and summary of sport fishing catches by area.

Salmon Rehabilitation and Hatcheries--Activities and Accomplishments, 12 pp., illus., printed. Washington State Department of Fisheries, Olympia, Wash., January 1958. A brief report containing facts about salmon; the role of hatcheries; a description of original experiment stations; developments in artificial propagation; summary of the Pacific salmon family; hatching methods and accomplishment of hatcheries; over-all rehabilitation objectives; and locations of hatcheries in Washington.

SCOTLAND:

Report on the Fisheries of Scotland, 1957, 68 pp., printed. Her Majesty's Stationery Office, 13A Castle Street, Edinburgh 2, Scotland, April 1958. A report, containing many statistical tables, which covers the means of capture and number of persons engaged in Scottish fisheries; herring, white fish, shellfish, and salmon

fisheries; byproducts production; fishery regulations; scientific investigations; and harbor studies and improvements. Contains various appendices which present supplemental data on the above-mentioned subjects.

SEA LAMPREY:

"The Sea Lamprey and the Death of the Great Lakes Lake Trout Fishery", by Edmund K. Swigart, article, Yale Conservation Studies, vol. 4, printed. Yale Conservation Club, New Haven, Conn. A brief account of the alarming influx of the sea lamprey through the Great Lakes and the consequent toll of the lake trout, which had provided one of the most profitable fisheries of the region. The article outlines the plan of campaign for the elimination of the lamprey, including the search for a larvacide which could destroy either the larvae or the young adults drifting back from the streams where they have spawned to the lakes. The plan, international in scope because Canada is affected as well as the United States, calls for the eventual reintroduction of lake trout and other species under attack to a full capacity as quickly and as economically as possible. The author says that if the lamprey is not the sole cause of the fisheries decrease, it is at least one of the major two or three factors and must be controlled before any optimistic view of the return of this lucrative industry can be formulated.

SEALS:

"Canada's Atlantic Sealfishery", by Bruce Woodland, article, Trade News, vol. 10, no. 8, February 1958, pp. 3-8, illus., printed. Department of Fisheries of Canada, Ottawa, Canada. Two articles on Canada's Atlantic sea fishery. The first article describes the decline of sealing operations in Newfoundland, the traditional home of the seal hunt. The second article, entitled "Halifax Now Main Centre", by G. J. Gillespie, contains a report on sealing out of the port of Halifax. A brief history of the Atlantic seal fishery is given, along with present operations, and prospects for future sealing operations.

SHARKS:

"A Review of the Eastern Pacific Sharks of the Genus *Carcharhinus*, with a Redescription of *C. melpeloensis* (Fowler) and California Records of *C. remotus* (Dumeril)", by Richard H. Rosenblatt and Wayne J. Baldwin, article, California Fish and Game, vol. 44, no. 2, April 1958, pp. 137-159, illus., printed, single copy 75 cents. Printing Division, Documents Section, California Department of Fish and Game, Sacramento 14, Calif.

SHRIMP:

The Use of Sodium Bisulfite for the Control of Black Spot in Shrimp, by C. Isaac Camber, Mary H. Vance, and James E. Alexander, Technical Series No. 20, 19 pp., illus., printed. The Marine Laboratory, University of Miami, Virginia Key, Miami 49, Fla., December 1957. Results of work which was undertaken to determine the optimum concentration and exposure time of a sodium bisulfite sea-water dip for preventing the development of black spot in pink

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shrimp. It was found that sodium bisulfite applied as a 1¼-percent dip for one minute was effective in reducing the incidence of black spot in shrimp for at least 10 days of iced storage. When used at this level, no detrimental effects on the flavor, odor, toughness, nor bacterial counts of treated shrimp were observed. Sulfur dioxide residuals were less than 10 parts per million, and no evidence of thiamine destruction was noted. Full benefits from the use of the chemical will not be obtained unless quick and careful handling procedures are followed. Using too much of the chemical or dipping the shrimp too long in the sodium bisulfite solution may cause a slight sharp or acid taste which would render them less desirable to the buyer.

SNOOK:

A Survey of the Snook Fishery of Florida, with Studies of the Biology of the Principal Species, CENTROPOMUS UNDECIMALIS (Bloch), by Arthur R. Marshall, Technical Series No. 22, 39 pp., illus., printed. The Marine Laboratory, University of Miami, Virginia Key, Miami 49, Fla., March 1958. The results of a survey, conducted from April 1954 to May 1955, which was undertaken to obtain a description of the snook fishery of Florida, in which the dominant species is Centropomus undecimalis (Bloch), and to determine certain aspects of the biology of that fish. It includes discussions of the fishery; biology, geographic range, and aspects of the life history of Centropomus undecimalis; and ecological considerations. The author states that "Although snook have been caught in Florida by sport fishermen for many years, a steady commercial fishery for them has existed only since about 1930. Sport and commercial fishing activities are confined generally to the southern half of the State. Brackish water mangrove areas produce the bulk of the catch, though a low percentage comes from fresh waters. The commercial fishery ranks about 15th in dollar value among the State's food-fish fisheries, with an annual value estimated at \$75,000, and annual production of ½ million pounds or more. Commercial production for the period 1941 to 1955 reached its highest peak in 1948, at 800,000 pounds, when the snook seine was in use and price was high. A decline since 1948 has occurred, possibly because of lessening market demand for fresh fish." This report was prepared in 1956. In 1957 the Florida State Legislature enacted a law prohibiting the sale of snook. Consequently all references to commercial fishing for snook apply to the situation prior to this legislative action.

TERRITORIAL WATERS:

Laws and Regulations on the Regime of the Territorial Sea, ST/LEG/SER.B/6 (UN Legislative Series, Sales No. 1957, V.2), 811 pp., printed, \$7. United Nations, New York, N. Y., November 1957.

TIDES:

Tide Tables -- West Coast, North and South America (including the Hawaiian Islands), 1958, 222 pp., printed, 50 cents. U. S. Department of Commerce, Coast and Geodetic Survey, Washington 25, D. C. This publication contains tables on daily tide predictions for 188 reference ports, tidal differences and other constants for about 5,000 stations, approximate height of tide at any time, local mean time of sunrise and sunset, reduction of local mean time to standard time, moonrise and moonset, and astronomical data. Explanatory notes to facilitate usage of each table are included. Also, contains a list of Coast and Geodetic Survey publications relating to tides and tidal currents.

TRADE AGREEMENTS:

"How a Trade Agreement is Made," by Honoré M. Catudal, Department of State Publication 6615, Commercial Policy Series 165, 6 pp., illus., printed, 5 cents, Department of State, Washington, D. C. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) A step-by-step account of the manner in which a trade agreement is negotiated. Background information is presented on trade agreements legislation, interdepartmental organization, and preparatory procedure.

TUNA:

Tuna Fish (Report on Investigation Conducted Pursuant to a Resolution by the Committee on Finance of the United States Senate dated August 20, 1957), 180 pp., processed. United States Tariff Commission, Washington 25, D. C. This is a report of the results of an investigation on tuna made in response to a resolution of the Committee on Finance of the Senate adopted August 20, 1957. The investigation was made pursuant to section 332 of the Tariff Act of 1930, as amended, and was similar in scope to a previous investigation made by the U. S. Tariff Commission in response to a resolution of the Committee adopted June 26, 1952. This report discusses the consumption of tuna in the United States in recent years; gives general information on the domestic tuna fishery, and detailed information on the operations of the bait-boat, purse-seine, and albacore fishing fleets; discusses at some length the operations of the domestic tuna-canning industry; and gives information on a number of other subjects, including tariff rates, tuna imports, and the tuna fisheries of Japan and Peru.

WASHINGTON:

Washington State Shellfish, 8 pp., illus., printed. Washington State Department of Fisheries, Olympia, Wash., January 1957. This leaflet briefly covers Washington's most important commercial species of oysters, clams, and shrimp.

