



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.
- FL - FISHERY LEAFLETS.
- MDL - MARKET DEVELOPMENT SECTION LISTS OF DEALERS, LOCKER PLANTS, ASSOCIATIONS, ETC.
- SL - STATISTICAL SECTION LISTS OF DEALERS IN AND PRODUCERS OF FISHERY PRODUCTS AND BYPRODUCTS.
- SSR - SPECIAL SCIENTIFIC REPORTS--FISHERIES (LIMITED DISTRIBUTION).
- SEP.- SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.

Number	Title
CFS-572	- Frozen Fish Report, September 1950, 10 p.
CFS-575	- Fish Meal and Oil, August 1950, 2 p.
CFS-576	- Massachusetts Landings, May 1950, 14 p.
CFS-577	- Canned Fish and Byproducts, 1949 Annual Summary, 20 p.
CFS-579	- Packaged Fish, 1949 Annual Summary, 4 p.
CFS-582	- Texas Landings, September 1950, 4 p.
CFS-583	- Maine Landings, August 1950, 4 p.
CFS-585	- Massachusetts Landings, June 1950, 14 p.
FL -336f	- Quarterly Outlook for Marketing Fishery Products, October-December 1950, 35 p.
FL -382	- Mesh Size and Construction as a Factor in Releasing Small Fish and Shrimp from Trawl Nets, 11 p.

Number	Title
SL -109 (Revised)	- Firms Canning Caviar and Fish Roe, 1949, 2 p.
MDL-51 (Revised)	- Officials of Refrigerated Locker Plant Associations, State and National, 4 p.
SSR-Fish 53	- Seasonal Variations in Toxicity of Butter Clams from Selected Alaska Beaches, by John S. Chambers and Harris W. Magnusson, processed, August 1950, 19 p.
Sep. 259	- Some Processing and Technological Methods in the Japanese Fisheries.

### 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.

Age, Rate of Growth, and General Life-History of the Australian Pilchard (SARDINOPS NEOPILCHARDUS) in New South Wales Waters, by M. Blackburn, Bulletin No. 242, 86 p. and illus. with 8 plates. Commonwealth Scientific and Industrial Research Organization, East Melbourne, Australia, 1949. An analysis of the age and rate of growth of the pilchard from the time of its hatching at sea, through the inshore phase which occurs early in the first year of its life, and to its eventual return to the sea and attainment of maturity

between the age of two to three years. These studies on the age and growth rate of the unexploited pilchard of New South Wales were carried out by means of scale-readings and analysis of length-frequency distributions. In growth-rate and in general life history, the author states, the New South Wales pilchard resembles that of the Atlantic coasts of south-western Europe more than it does the other closely related pilchard groups that have been studied elsewhere.

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Annual Report (New Jersey Division of Fish and Game),

For the Fiscal Year Commencing July, 1948, and Ending June 30, 1949, 47 p., printed. Division of Fish and Game, New Jersey Department of Conservation and Economic Development, Trenton, N. J. Among other things, this publication gives a very brief summary of New Jersey's pound fisheries; number of menhaden and food fish licenses, and special netting licenses issued by the State; and a statistical summary of the Delaware River and Hudson River shad industries (number of men, boats, fish and pounds of shad caught, value of catch, and value of boats and gear).

Annual Report of the Federal Security Agency, 1949,

670 p., printed, \$1.50 Federal Security Agency, Washington, D. C. (For sale by Superintendent of Documents, Washington, D. C. Separate reprints of the reports of each of the Agency's constituent organizations are also for sale.) Contains the 1949-50 fiscal year report of all the agencies in the Federal Security Agency, including the Public Health Service and the Food and Drug Administration. Activities of the latter two agencies are of interest to the fishing and allied industries since some of their functions are connected with fisheries. The report of the Public Health Service includes information on shellfish sanitation and water pollution. The report of the Food and Drug Administration discusses the actions taken by the Agency on foods (including sea food) and includes information on the seafood inspection service, court interpretations (one on canned oysters), and scientific investigations conducted by the agency (including crab meat, oysters, frozen shrimp, and vitamin B<sub>12</sub>).

Annual Report for 1949, 181 p., illus., printed.

Department of Fisheries, State of Washington, Seattle, Wash., 1950. Reports on the activities of the Washington's Department of Fisheries. This report is divided into four parts: (1) The Salmon Fishery, (2) Shellfish and Bottom Fish, (3) Law Enforcement, and (4) Commercial Fishing Statistics. The section on commercial fishing statistics gives 1949 data for the entire State, together with comparative data; detailed statistics for Puget Sound, Grays Harbor, Willapa Harbor, and Columbia River; and data on number of licenses, financial receipts, and appropriations. The salmon fishery section discusses stream improvement, biological research, hatcheries, hatchery construction, and cooperative programs. Bottom fishing, otter trawling, razor clams, and oyster studies are reported upon in the section on shellfish and bottom fish. An appendix is included and it contains information on smoke curing of salmon; life history and habits of the Pacific razor clam; notes on the biology of oysters; life history and habits of the commercial crab; Washington's fishery resources; hatchery procedures; and a list of Washington's food fisheries.

Australian Journal of Marine and Freshwater Research,

April 1950, vol. 1, no. 1, 154 p., plus plates, illus., printed, 7s6d per issue (approx. 85 cents). Commonwealth Scientific and Industrial Research Organization, 314 Albert Street, East Melbourne, C2, Victoria. Published as a medium for the publication of the results of original investigations

on sea, estuarine, and freshwater fisheries and related subjects. Will be issued as material becomes available. The following articles appear in this first issue: "A Biological Study of the Anchovy, *Engraulis australis* (White), in Australian Waters;" "Investigations on Underwater Fouling: I-The Role of Bacteria in the Early Stages of Fouling; II-The Biology of Fouling in Australia: Results of a Year's Research; III-Note on the Fouling Organisms Attached to Naval Mines in North Queensland Waters;" "The Condition of the Fishery for Barracouts, *Thyrsites atun* (Euphrasen), in Australian Waters;" "The Bacteriology of Shark Spoilage;" and "The Effects of the Orientation of Culch Material on the Setting of the Sydney Rock Oyster."

Bibliography of Canadian Biological Publications for 1947, by J. Murray Speirs and J. M. Johnston, 102 p., printed. Ontario Fisheries Research Laboratory, Department of Zoology, University of Toronto and Research Council of Ontario's Advisory Committee on Fisheries and Wildlife, Toronto, Ont., February 1950. Lists the biological literature written by Canadians, or dealing with Canadian wildlife and fisheries. Among the subjects included are fishing, shellfish, fish, fisheries, fish products and by-products, fishery management, ecology, and processing (includes processing of fishery products). This bibliography is arranged alphabetically by subject, and within the subject by author, publication, date, and page. An author index is included, and a list of the publications which were not listed in the 1946 bibliography is appended.

Canadian Fishery Markets, Market Bulletin No. 4, in two volumes--Vol. 1: "Outlook for 1950," 32 p.; and Vol. 2: "Review of 1949," 36 p.; processed. Department of Fisheries, Ottawa, Canada, May 1950. Volume 1 gives the outlook for the marketing of fishery products during 1950. It deals with production and the food supply; the general outlook for Canadian, United States, and foreign markets; and the outlook according to types of products, including fresh, frozen, canned, etc. Volume 2 reviews the 1949 production and trade in fishery products in Canada, the United States, and foreign countries.

A Comparison of the Bluefin Tunas, Genus *Thunnus*, from New England, Australia, and California, by H. C. Godsil and Edwin K. Holmberg, Fish Bulletin No. 77, 55 p., illus. Bureau of Marine Fisheries, Division of Fish and Game, San Francisco, Calif., 1950. The study presented in this publication was undertaken to clarify the systematic relationship of the various tunas. The purpose of the study was to determine whether positive, diagnostic differences exist between the Atlantic bluefin and California bluefin, on the one hand, and between the Australian southern bluefin and the California bluefin, on the other hand. The authors conclude that the Australian southern bluefin *T. maccoyii* is entirely distinct from the remaining members of the genus and can be identified positively by a number of characters. The bluefin of the California coast is remarkably similar to that of the Atlantic coast, but it can be distinguished by at least four internal characters and possibly the gill-raker count. Specimens of the *T. thynnus* from the eastern and western Atlantic appear to be identical in most characters. There is a striking similarity between *T. thynnus* of the California coast and *T. orientalis* of Japan, but until certain differ-

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ences are further investigated, *T. orientalis* must be considered as a species distinct from *T. thynnus* of the Pacific American coast.

A Directory of Marine Laboratories of the United States and Canada, by Robert W. Hiatt, Contribution No. 4, 70 p., processed. Hawaii Marine Laboratory, Honolulu, T. H. The laboratories are listed in alphabetical order, and an index to them is included. Persons affiliated with each laboratory in 1949 are listed. Information listed for each marine scientist includes his address at a marine laboratory and his permanent address, his special field of training, and his current research project, if available.

Foreign Government Purchasing Agencies, 5 p., processed. Business Information Service, Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce, Washington 25, D. C., August 1950. This list consists principally of foreign government purchasing missions operating in the United States. Only those missions of foreign governments which have procurement and purchasing functions are listed. The list also includes the names of the French groups and certain foreign government purchasing agencies located abroad.

"Great Lakes Fisheries," by Spencer M. Bower, article, Michigan Conservation, September-October 1950, vol. XIX, no. 5, pp. 7-10, 25-26, illus., printed, 50 cents per year. Michigan Department of Conservation, Lansing, Mich. A discussion of Michigan's commercial Great Lakes fisheries, including production, types of gear used, and regulations affecting commercial fishing.

Guide for the Prospective American Importer, 44 p., printed, free. Economic Cooperation Administration, Washington, D. C., September 1950. This is a handbook on the principles of importing. Important "do's" and "don'ts" for actual and potential importers of goods from Marshall Plan countries are highlighted in this publication, which was prepared in collaboration with non-governmental organizations interested in foreign trade and with the U. S. Department of Commerce. Designed to assist businessmen in gathering adequate information on foreign trade, making correct policy decisions on matters involving importing, and formulating sound plans for engaging in importing enterprises, this booklet delineates seven steps which must be taken by any firm contemplating entering the import field, either as an importer of raw materials, consumer specialties, or consumer staples. Discusses importing for the manufacturer, wholesaler or jobber, and retailer. An appendix gives further helpful hints, listing such items as commercial abbreviations, definitions of shipping terms, foreign trade terminology, and the like.

Handbook of Freshwater Fishery Biology, Kenneth D. Carlander, 290 p., printed, \$4.50. Wm. C. Brown Company, Dubuque, Iowa, 1950. This handbook is primarily a quick-reference source book to data on fresh-water fish. Consists mostly of tabular material for which conservationists and biologists have frequent need, and it will aid research workers as a bibliographical guide to original investigations. To keep the tabular compilations up to date, periodic supplements are planned by the Iowa Cooperative Fisheries Research Unit, Iowa State College, Ames, Iowa, of which the author is a member. In order to draw attention to

the variability of data from various areas, the information presented is tabulated rather than completely summarized. The book consists of instructions for reading the tables; an explanation of the methods used for arriving at lengths, ages, calculated lengths, length-weight relationship, condition index, and fecundity data; suggestions for conducting a simple age and growth study; life histories by species; population data; conversion tables; literature cited; and alignment charts and nomographs. In addition to the life history information, creel census and other fish population data are tabulated for ready reference. As a measure of "success of fishing," figures on catch per man-hour, per trip, or per day are given for several species, for several types of water, and for various types of tackle. Data on the annual yield per acre to commercial and sport fisheries are also given. Total populations, as determined by draining, poisoning, electric shocker, or marking and recovery techniques, are summarized on a poundage or number-per-acre basis. Over 1,100 references are included in the literature cited section of this book.

Maine Lobster Recipes, 24 p., illus., printed. Department of Sea and Shore Fisheries in cooperation with the Maine Development Commission, Augusta, Maine. The State of Maine Department of Sea and Shore Fisheries and a national brewing company through its magazine The Journal of the Societe Des Gentilshommes Chefs de Cuisine, recently conducted a nationwide Maine Lobster Recipe Contest. This booklet presents 27 recipes chosen from those submitted by famous chefs, maitres d'hotel, connoisseurs of fine foods, and gourmets. Included are such recipes as Baked Maine Lobster De Luxe, Maine Lobster Espanol, Lobster Oriental, Lobster Thermidor, Lobster Polynesian, and Lobster Curry.

Measures of Abundance of Certain Pelagic Fish in Some South-Eastern Australian Waters, by M. Blackburn and J. A. Tubb, Bulletin No. 251, 74 p., and illus. with 2 plates. Commonwealth Scientific and Industrial Research Organization, Eastern Melbourne, Australia, 1950. Analyzes data on the geographical distribution and seasonal fluctuations of surface-swimming fish in south-eastern Australian waters collected by the CSIRO Division of Fisheries and its collaborators over the past years. The pelagic fish covered in the report are tunas, horse mackerel, pilchards, anchovies, Australian "salmon," and others. Progress which has been made in developing these fisheries and the lines along which success may most probably be achieved in the future are discussed. General levels of abundance, at the principal seasons of the year, of the most important non-scombroid pelagic fish in certain waters of south-eastern Australia are indicated. This report is intended for the information and general encouragement of those who may be interested in exploiting these species, few of which are adequately used at present in Australia.

Our Foreign Policy, Department of State Publication 3972, General Foreign Policy Series 26, 100 p., printed, 25 cents. Office of Public Affairs, U. S. Department of State, Washington 25, D. C. (For sale by the Superintendent of Documents, Washington, D. C.). A brief survey of American aims and policies



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with regard to our relations with other governments and their peoples issued at the suggestion of President Truman. Indicates what the foreign policy of our Government is at present.

Prospects for the 1950-51 Herring Fishing Season, by J. C. Stevenson, Circular No. 21, August 1950, 4 p., processed. Pacific Biological Station, Fisheries Research Board of Canada, Nanaimo, B. C. Contains a prediction of the prospects of the 1950-51 herring fishing season off British Columbia by districts.

Report for Fiscal Year October 1, 1948-September 30, 1949 (Alabama), 159 p., illus., printed. Alabama Department of Conservation, Montgomery, Ala., 1949. Included in this publication is a discussion of the Seafoods Division, fisheries research, and a report by the Division of Game, Fish and Seafoods. Some data on shrimp and oyster production are given.

Summaries of Tariff Information (Separate summaries for Specific Fishery Products). U. S. Tariff Commission, Washington 25, D. C. Limited supply of these separate summaries are available. The Commission has compiled summaries on specific fishery products which are duty free. A limited supply of separate pages from these summaries for the following specific fishery products are available:

Commodity	Tariff Par. No.	Pages
Cod Oil and Cod-Liver Oil	1730	3-6
Eulachon Oil	1730	7
Products of American Fisheries	1730	9-20
Fish Meal, Scrap, and Cake	1780 and 1685	55-70
Cuttlefish Bone	1666	69-70
Turtles	1790	111-4
Fish Sounds	1624	165, 186
Eggs of Birds, Fish and Insects	1671	179-80
Sea Herring, Fresh or Frozen	1756	183-202
Aquarium Fish, Including Goldfish	1677	203-7
Abalone	1761	215-6
Clams (Except Canned Clams and Canned Clam Products)	1761	217-21
Crabs	1761	222-5
Lobsters	1761	226-37
Oysters (Except Canned Oysters and Canned Oyster Products)	1761	238-44
Scallops	1761	245-7
Shrimp	1761	248-52
Shellfish, N.S.P.F.	1761	253-8
Shellfish Pastes and Sauces (Except Crab, Clam, and Oyster)	1761	259-61

The above summaries include statistics on production, domestic exports, and imports for consumption for certain years from 1931 to 1948. In addition, there are comments on each product--uses, prices, and consumption in the United States, tariff status, and other pertinent data.

"Summer Fishing on Lake Winnipeg," article, Trade News, August 1950, vol. 3, no. 2, pp. 21-3, illus., processed. Department of Fisheries, Ottawa, Canada. Discusses the summer fishing on Lake Winnipeg--production, type of gear and boats used, and marketing of the fish.

Survey of Food and Nutrition Research in the United States, 1948-49 (A Compilation of Research Pertaining to Foods and Nutrition in Academic, Government, and Industrial Laboratories), by The Committee on Survey of Food and Nutrition Research of the Food and Nutrition Board, National Research Council, 311 p., printed, \$1.75. Reproduced and Distributed by the Office of Technical Services, U. S. Department of Commerce, Washington, D. C., 1950. This is the second classified listing of projects dealing with food and nutrition research, and including the responsible organizations and the professional personnel. The contents include those research projects reported in the first edition which continued active and new projects activated between March 1948 and March 1950. A large number of research projects dealing with fishery products and byproducts are included. Projects which have more recently been terminated and sources of financial support which have been discontinued are indicated. The number of projects listed has increased from approximately 4,000 to 4,500. The main subjects included are physiology, chemistry, technology, microbiology, and in addition, food acceptance and nutrition education studies. Fishery products are specifically included under chemistry (food composition and nutritive value) and technology (developmental research on food products). Under technology are included processing methods (canning, dehydrating, freezing, and packaging); under microbiology are included research projects dealing with food spoilage and prevention, and bactericides for food processing plants. Lists of organizations and personnel engaged in the various projects listed as well as an index, are included.

Third Annual Report of the Director (1st April 1949-31st March 1950), 8 p., printed. Fishing Industry Research Institute, Cape Town, South Africa. Reviews the work of the Institute for the fiscal year April 1, 1949-March 31, 1950. A short discussion of the various investigations conducted by the Institute is included. Among the investigations mentioned are the following: tomato in fish packs, crawfish canning, weight losses and contraction of crawfish, shrinkage of pilchards during heating, processing temperature for pilchards in tomato, storage changes in canned pilchards, plain vs. lacquered cans for canned pilchards, canning of abalone, bacterial contamination of ice, preservation of fish offal aboard trawlers, pilchard pressing, protein determinations in fish meal, and crawfish freezing. In addition, the publication reports on the inspections and analyses made by the Institute.

"£2,000,000 Pilchard Harvest: Report on Cape West Coast Fishery," article, The South African Shipping News and Fishing Industry Review, August 1950, vol. 5, no. 8, pp. 57-87, illus., printed. S. A. Trade Newspapers (Pty.) Ltd., Riebeck Square, Cape Town, South Africa (approx. 25 cents per issue). A full report of South Africa's pilchard industry. Discusses its beginnings, production, number of plants, capacity