# 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.
- **FL** - Fishery Leaflets.
- **SL** - Branch of Statistics List of Producers of Fishery Products and Byproducts.
- **SEP.** - Separates (reprints) from Commercial Fishery Review.

<table>
<thead>
<tr>
<th>Number</th>
<th>Title</th>
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<tbody>
<tr>
<td>CFS-2478</td>
<td>South Atlantic Fisheries, 1960 Annual Summary, 6 pp.</td>
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<tr>
<td>CFS-2673</td>
<td>Fish Meal and Oil, July 1961, 2 pp.</td>
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FL-443 (Revised June 1961) - Construction of a Garden Fish Pool, 4 pp., illus.

FL-505 - Shipworms and Other Marine Borers, by Michael Castagna, 12 pp., illus., processed, June 1961. Gives the classification, description, reproduction and early life history, distribution, and damage of shipworms, boring clams, and marine-boring crustaceans. Control and prevention are also discussed. Includes a bibliography of publications on marine borers.

FL-510 - Great Lakes Trawler Conversion, by William G. Gordon and Keith D. Brouillard, 14 pp., illus., March 1961. Commercial fishermen of the Great Lakes have been forced to reconsider the economic feasibility of their methods of operation because of a recent decline in availability of traditionally-used fish stocks and an explosive increase in non-commercial species. The future of the fishing industry depends on producing fishery products at competitive prices. More efficient harvesting of existing stocks is necessary. Methods of converting from traditional Great Lakes vessels to stern-set trawlers or draggers are being evolved. This leaflet discusses in detail vessel conversions, trawling gear, and economic considerations involved.

FL-517 - Ambergris, by Lola T. Dees, 7 pp., illus., May 1961.

Whole Sale Dealers In Fishery Products, 1961 (Revised):

SL-1 - Maine.
SL-19 - Louisiana (Coastal Area).
SL-21 - California.

TL-16 - A Literature Review on Possible Uses for Dogfish, by Kathryn L. Osterhau g, 43 pp., February 1961.


Fisheries Loan Fund, Fiscal Year 1959. Fish and Wildlife Circular 113, 14 pp., processed. Covers organization of the Office of Loans and Grants, operational changes, and status of the loan fund, and practical value of the program. Includes graphs showing number and value of loan applications received by areas, and number and value of loans approved by areas.

The Groundfish Industries of New England and Canada (A Comparative Economic Analysis), by Edward J. Lynch, Richard M. Doherty, and George P. Draheim, Circular 121, 192 pp., July 1961. This report is an attempt to qualify and list both internal and external causes of the decline of the New England groundfish industry. The study focuses on the comparative costs of production of New England groundfish vessels and those in the Canadian Atlantic Provinces. It deals with the economic, social, and biological factors which have affected both the New England and Canadian groundfish industries. Such topics as background and the problem areas; the Atlantic Provinces of Canada; haddock and other groundfish resources; costs and earnings of New England trawlers; comparative costs in the Canadian and New England groundfish industries; and resources and productivity are all discussed.
The Soft-Shell Clam Industry of Maine, by Robert L. Dow and Dana E. Wallace. Circular 110, 41 pp., illus., June 1961. This report examines the organization and problems of the Maine soft-shell clam industry as well as the physical factors which limit market supplies from this public resource. The influence of public opinion, conservation legislation, and current management practices upon the industry are discussed in detail. The effect of hydrological, geological, and meteorological conditions upon the clam flats and the problems of predation are discussed and illustrated by photographs. Also included are statistical tables covering U.S. production of soft-shell clams by states, 1954-58; production and price per pound of clams, 1897-1959; total landings; average daily catch; and related topics.

The following publications are available only from the specific office mentioned.

(Baltimore) Monthly Summary—Fishery Products, August 1961, 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 1961, 16 pp. (Market News Service, U.S. Fish and Wildlife Service, Post Office Bldg., San Pedro, Calif.) California cannery receipts of tuna and tunalike 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 canning fish; Oregon and Washington receipts (domestic and imports) of fresh and frozen tuna and tunalike fish; for the month indicated.

California Fishery Market News Monthly Summary, Part II—Fishing Information, May and June 1961, 11 and 9 pp., respectively, illus. (U.S. Bureau of Commercial Fisheries, Biological Laboratory, P.O. Box 6131, Pt. Loma Station, San Diego 6, Calif.) Contains sea-surface temperatures, fishing and research information of interest to the West Coast tuna-fishing industry and marine scientists; for the months indicated.


Field Tests of a Chemical Method for the Control of Marine Gastropods, by H. C. Davis, V. L. Loosanoff, and C. L. MacKenzie, Jr., Bulletin No. 3, vol. 25, pp. 3-15, illus., processed. U.S. Bureau of Commercial Fisheries, Biological Laboratory, Milford, Conn. August 7, 1961. A report presented at the convention of the National Shellfisheries Association on the method of chemical control of oyster drills and other gastropods. During the summer of 1960 extensive field tests were conducted, using one of the basic formulae designed to control oyster drills and other gastropods. The purpose of these tests was fourfold: (1) to evaluate several methods of application of chemically-treated sand; (2) to determine the effectiveness of several variations of the method in the control of oyster drills and other gastropods; (3) to determine the effect of treatment on other fauna; and (4) to determine the effect of treatment on setting of oysters and starfish in treated areas. Materials and methods used as well as experimental results and conclusions are discussed. Also included are illustrations on the method of spreading treated sand, location of oyster grounds used in tests, and details of the test plots.

Gulf of Mexico Monthly Landings, Production and Shipments of Fishery Products, July 1961, 8 pp. (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 month indicated.

Monthly Summary of Fishery Products Production in Selected Areas of Virginia, West Virginia, and Maryland, August 1961, 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.

New England Fisheries—Monthly Summary, July 1961, 22 pp. (Market News Service, U.S. Fish and Wildlife Service, 10 Commonwealth Pier, Boston 10, Mass.) Review of the previous month's reports. Presents data on fishery 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 (Providence), and Connecticut (Stonington); frozen fishery products prices to primary wholesalers at Boston, Gloucester, and New Bedford; and Boston fishery trade in Atlantic Avenue fishery landings and ex-vessel prices by species; for the month indicated.

New York City's Wholesale Fishery Trade—Monthly Summary, June 1961, 18 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.

Parasites and Diseases of Warm-Water Fishes, Circular 112, 20 pp. (U.S. Fish and Wildlife Service,
The Commercial Fishery Situation on the Ivory Coast, by A. Lassarat, 55 pp., illus., processed, June 1961. (Translated from French, Republic of the Ivory Coast, Ministry of Animal Husbandry, Sea Fishery Service, Abidjan. B. P. 1849—T. 51-69, March 1961.) Covers the fishing fleet and its support, tonnage of fishery products landed, and commercial utilization; and the fishing techniques practiced—trawling, seining, and tuna fishing. Small-scale fishing is presently expanding vigorously because fish has become the principal source of cheap protein food. The establishment of the tuna fishery, which depends on putting into service vast refrigeration installations, may give rise to the development of a large canning industry and also a feed industry. The development of fishing and its related industries, which at present employ about 20,000 people, may create additional supplementary jobs. "The future of fisheries on the Ivory Coast is very promising in view of the extent of the market for local consumption and the prospects for development of the tuna industry," concludes the author.

Operations of Japanese Tuna Longliners and Tuna Fishing Conditions in the Equatorial Atlantic (Particularly 1960 Trends), by M. Nagai, K. Kawaguchi, and J. Nakagome, 10 pp., illus., processed, June 1961. (Translated from Japanese, Tuna Fishing, no. 77, April 1961, pp. 16-22.) The third report on the operations of Japanese tuna long-line vessels and the tuna fishing conditions in the equatorial Atlantic. The authors discuss the findings of the Kanagawa Prefecture Fishery Experiment Station. A comparison is made of the operating method with that of the preceding year, and the year-to-year changes in fishing conditions, particularly for yellowfin tuna, are explained. Included is a table showing arrivals and departures of Japanese tuna-fishing vessels from Atlantic ports, 1957-60.

Fishway Research at the Fisheries-Engineering Research Laboratory, by Gerald B. Collins and Carl H. Elling, Circular 98, 20 pp., illus., printed, 20 cents, November 1960. Results of 4 years of research on fishway problems, data on rates of movement of salmonids ascending fishways, and of spatial requirements of fish are given and experiments to measure fishway capacity are described. Effect of fishway slope and fishway length on fish performance and biochemical state, experiments measuring swimming abilities of salmon, fish attraction to water velocities and light conditions, as well as effects of light and water velocity on rates of passage through channels and fishways are discussed. Experiments involving fingerling passage problems and the testing of full-scale prototype fishway designs are illustrated.


MISCELLANEOUS PUBLICATIONS

These publications are not available from the Fish and Wildlife Service, but usually may be obtained from the organization issuing them. Correspondence regarding publications that follow should be addressed to the respective organization or publisher mentioned. Data on prices, if readily available, are shown.

ABALONE:

ALGAE:

AMINO ACIDS:
"On the Available Lysine in Protein of Fish and Algae," by Haruo Baba, article, Bulletin of the Japanese

ANTIBIOTICS:

AUSTRALIA:
List of Publications, 1945-1961 (Replacing all Previous Lists), General Circular No. 9, pp. processed. Fisheries and Wildlife Department, 605 Finders Street Extension, Melbourne, C.3., Victoria, Australia, March 17, 1961.

BIOCHEMISTRY:


BIOSYNTHESIS:
Biosynthesis of Trimethylammonium Compounds in Aquatic Animals. 1--Formation of Trimethylamine Oxide and Betaine from Ch-Labeled Compounds by Lobster (Homarus americanus)" by E. Bilinski, article, Journal of the Fisheries Research Board of Canada, vol. 17, December 1960, pp. 895-897, printed, Fisheries Research Board of Canada, West Block, Ottawa, Canada.

CALIFORNIA:
Forty-Sixth Biennial Report, California Department of Fish and Game (July 1, 1958, through June 30, 1960), 77 pp., illus., printed. California Department of Fish and Game, 722 Capitol Ave., Sacramento 14, Calef. This report covers in detail the activities of the Department of Fish and Game during the period July 1, 1958, through June 30, 1960. Also included are reports of major policy decisions by the Fish and Game Commission and activities of the Wildlife Conservation Board. The section on inland fisheries discusses trout hatcheries and the research and experimental programs, habitat improvement through chemical treatment of lakes and streams, Kokanee salmon, warm-water fish, and striped bass. The section on marine resources covers salmon and steelhead-lower river salmon project, upper river studies, coastal stream studies, silver salmon, and other activities; sportfisheries-party boat fishing, northern California sportfish, ocean fish habitat development, California bonito, barracuda, white sea bass, and kelp bass; pelagic fisheries--tuna, anchovy, mackerel, and sardines; bottom fisheries--rockfish and California halibut; shellfisheries--abalone, crab, oysters, ocean shrimp, and pismo clam; pollution studies; research vessels; seismic explorations; and biostatistics. Also included in the report are statistical summaries.

CANADA:
Fisheries Statistics of Canada (Nova Scotia), 1959, 42 pp., printed in French and English, C$1. Queen's Printer and Controller of Stationery, Ottawa, Canada, August 1961. Consists of tables giving the quantity and value of fishery products landed in Nova Scotia, 1944-1959; the quantity and value of fishery products by species and fisheries districts, 1958-1959; capital equipment employed and number of persons engaged in the primary operations by fisheries districts, 1958-1959; and classification of powered fishing craft by over-all length.

Fisheries Statistics of Canada, 1959 (Prince Edward Island), 22 pp., printed in English and French, 50 Canadian cents. Queen's Printer and Controller of Stationery, Ottawa, Canada, July 1961. Contains tables showing the quantity and value of fishery products landed in Prince Edward Island, 1944-1959, by species; quantity and value by species and fisheries districts, 1958-59; capital equipment employed in primary operations, 1958-59; classification of powered fishing craft by over-all length; and number of persons engaged in primary operations by fisheries districts and in the major fisheries of Prince Edward Island.

Fisheries Statistics of Canada, 1960 (British Columbia), 17 pp., illus., printed in French and English, 50 Canadian cents. Queen's Printer and Controller of Stationery, Ottawa, Canada, July 1961. Contains tables giving the quantity and value of fishery products landed in British Columbia in 1948-60, by species; landings and products, quantity and value by species and fisheries districts for 1959-60; capital equipment in the primary fisheries operations, 1959-60; and number of persons engaged in primary fisheries operations, 1959-60.

Fisheries Statistics of Canada, 1960 (Newfoundland), 24 pp., illus., printed in French and English, 50 Canadian cents. Queen's Printer and Controller of Stationery, Ottawa, Canada, July 1961. Presents tables giving the value of fishery products by species, 1956-60; quantity and value of fishery products by species and fisheries areas, 1959-60; capital equipment employed in primary operations by areas, 1959-60; and number of persons engaged in the fisheries by areas, 1959-60.
Teeming Waters, by Mark Ronayne, Cat. No. Fs31-1960/1, 17 pp., illus., printed, 25 Canadian cents.
(Reprinted from Canadian Geographical Journal.)
Department of Fisheries of Canada, Ottawa, Canada.
(Available from the Queen's Printer, Ottawa, Canada.) A brief but well illustrated article on Canada's marine and inland fisheries. The author states that "...after four and a half centuries, notable changes have occurred in the lives of our east coast, in the species sought, the ships that pursue them and in the catching methods. But one factor remains unchanged--from the earliest days of discovery to the present, the wealth of these waters continues to be a prize coveted by fishermen of many European as well as the two North American nations, and food from these teeming waters continues to follow multilaned routes to many parts of the globe. Richly endowed as she is on the east coast, Canada is no less fortunate in the resource of her Pacific waters. Here, too, are found the requisites of a great natural heritage replete with variety, quality and abundance. Based on the all-important salmon, the west coast fisheries also have access to important stocks of halibut, herring, and various groundfish and shellfish species which support a rich and multi-faceted industry."

CARP:

"The Dependency of the Fat Content of the Liver of the Carp (Cyprinus carpio) on the Season, the Food, and the Sex, as Well as Its Relation to the Content of Fat-Soluble Vitamin A," by Gunter Ketz, article, Naturwissenschaften, Springer-Verlag, Reichpietsucher 20, Berlin W35, Germany.

CATFISH:

CHEMICAL CONTENT:


COD:
Preliminary Results on Grey Cod Tagging in Hecate Strait, in 1960 and 1961, by J. A. Thomson, Circular No. 82, 8 pp., illus., processed. Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada, July 1961.

COMPOSITION:


CRAB MEAT:
CRUSTACEA:
"A New Deep-Water Species of Lysiosquilla (Crustacea, Stomatopoda) from the Gulf of Mexico," by Raymond B. Manning, Contribution no. 298, 7 pp., illus., printed. (Reprinted from Annals and Magazine of Natural History, Ser. 13, vol. iii, p. 893, November 1960.) The Marine Laboratory, University of Miami, #1 Rickenbacker Causeway, Miami 49, Fla.

Stomatopod Crustacea from the Atlantic Coast of Northern South America, by Raymond B. Manning, Allan Hancock Atlantic Expedition Report No. 9, 50 pp., illus., printed. #1 Rickenbacker Causeway, Miami 49, Fla.

DEHYDRATION:

FARM PONDS:
Improve and Manage Farm Ponds, 2 pp., illus., printed. Missouri Conservation Commission, Jefferson City, Mo., 1959.

FEDERAL REGULATIONS:

CUBA:
"Fishing at Cojimar (Cuba)," by P. W. Gilbert, article, Sea Frontiers, vol. 7, no. 1, February 1961, pp. 53-56, illus., printed. Sea Frontiers, Marine Laboratory, University of Miami, #1 Rickenbacker Causeway, Miami 49, Fla.

DELAWARE RIVER BASIN PROJECT:
Fish and Wildlife Resources (Appendix J, Report on the Comprehensive Survey of the Water Resources of the Delaware River Basin), 129 pp., illus., processed, 75 cents. District Engineer, U. S. Army Engineer District, P. O. Box 8629, Philadelphia 1, Pa. An appendix to a report recommending a comprehensive plan for development of the Delaware River Basin on fish and wildlife resources. It presents reconnaissance-type data regarding the more important fish and wildlife resources of the basin, including related needs and problems, and also describes the probable effects that proposed water development projects will have on various fish and wildlife resources. This appendix also includes a plan suggesting general means whereby fish and wildlife resources can be protected and improved for the enjoyment of present and future human populations of the basin and vicinity. This appendix was prepared by the U. S. Fish and Wildlife Service for the U. S. Army Engineer District, Philadelphia, Pa.

EAST AFRICA:
East African Freshwater Fisheries Research Organization Annual Report 1960, 51 pp., printed, 4s. (about 60 U. S. cents). East African Fisheries Research Organization, P. O. Box 343, Jinja, Uganda. Describes scientific work accomplished in the study of Nile perch, ichthyology and hydrology, invertebrates, breeding and experimental growth of Tilapia, and the fisheries of Lake Victoria and Lake Naivasha. Also includes a bibliography of recent publications on East African fisheries and related subjects, and appendices of research papers on fisheries.

FISH FARMING:
Fish Farming in Farm Dams, Fisheries Circular No. 4, 4 pp., processed. Fisheries & Game Department, 605 Flinders St., Melbourne, Australia, July 1959.

FISH FLOUR:


Journal of Biochemistry and Physiology, National Research Council, Ottawa, Canada.

FISH MEAL:

'Unidentified Growth Factors in Fishery Products," by Roger Berglund, article, Feedstuffs, vol. 33, April 1, 1961, pp. 16-17, printed. Feedstuffs, Miller Publishing Co., 2501 Wayzata Blvd., Minneapolis 5, Minn.


FISH OILS:
Department of Food and Dairy Technology, Oregon State College, Corvallis, Oreg.


FISH POISONING:

FISH SERUMS:

FISH SOLUBLES:


FISHERY REGULATIONS:
"Economic Effects of Fishery Regulation," article, Trade News, vol. 13, no. 12, June 1961, pp. 3-5, illus., processed. Trade News, Information and Education Service, Department of Fisheries, Ottawa, Canada. Discusses the FAO Expert Meeting on the Economic Effects of Fishery Regulation, held in Ottawa, June 12-17, 1961. The meeting was the first international gathering of its kind on the North American continent. Countries represented included Canada, Chile, Denmark, France, Iceland, Japan, Norway, Philippines, South Africa, Spain, the United Kingdom, and the United States. There were also participants from several international fisheries commissions, the FAO itself, and other agencies. Papers were presented on the economics of regulating fisheries; the effects of regulations on the catch; and related subjects. Biologists, economists, and other specialists in the field of fisheries must combine forces in assembling the data required by administrators and policymakers to arrive at sound decisions, one expert concluded.

FISHERY RESEARCH:

FISHWAYS:

FOOD AND AGRICULTURE ORGANIZATION:
A List of Experts Concerned with the Study of Algae, FAO Fisheries Biology Technical Paper No. 7, 33 pp., processed. Fisheries Division, Biology Branch, Food and Agriculture Organization of the United Nations, Rome, Italy, May 1961. This is one of a series of technical papers in which are listed the names and addresses of persons known to FAO to be conducting research on, or interested in, a particular subject within the general field of aquatic sciences and fisheries research.

Marketing Problems and Improvement Programs, by J. C. Abbott, FAO Marketing Guide No. 1, 232 pp., illus., printed. Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, 1958. This guide provides a

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better understanding of marketing, brings about a wider appreciation of its significance, and indicates ways in which existing marketing practices may be improved. The introductory chapter discusses the importance of marketing and practical problems and programs. Chapter 2 deals with the main elements in marketing and their part in the marketing system. Assembly, distribution, transport, storage, grading and standardization, wholesale distributors, marketing margins, supply and demand, monopoly, and other related topics are covered in this chapter. Characteristic marketing problems are discussed in Chapter 3, beginning at farm level and continuing through to the wholesale and retail phases of marketing and the provision of facilitating services. Methods of introducing improvements are the subject of the final chapter. This chapter deals with private enterprise, marketing cooperatives, marketing boards, government regulatory programs, government facilitating programs, government marketing departments, and FAO assistance in marketing development. Also includes additional papers on marketing as well as a selected bibliography.

FREEZE-DRIYING:


FREEZING:


FROZEN FISH:

FROZEN STORAGE:

GEAR:


GENERAL:
GREAT LAKES:
"Great Lakes Fisheries," article, Trade News, vol. 13, no. 12, June 1961, pp. 6-8, illus., processed, Trade News, Information and Educational Service, Department of Fisheries, Ottawa, Canada. Reviews the annual meeting of the Canadian Federal-Provincial Committee for Ontario Fisheries held in Ottawa early in 1961. Research programs and management practices of Lakes Ontario, Huron, Superior, and Erie are discussed. Encouraging results from the lamprey control program are reported. Technological work, gear research, and economics projects are also discussed.

HEMOGLOBIN:

HERRING:


BULLETIN OF TOKAI REGIONAL FISHERIES RESEARCH LABORATORY, no. 29, January 1961, 57 pp., illus., printed in Japanese with English summaries. Tokai Regional Fisheries Research Laboratory, Tsukishima, Chuo-ku, Tokyo, Japan. Includes, among others, the following articles: "Fishing Grounds and Age Composition of Mackerel on the Southeastern Coast of Honshu, Japan," by H. Takano; and "Studies on Midwater Trawling. II--Field Experiments of a Net Sonde," by S. Takayama and T. Koyama.

Collected Reprints, 1960 (from the Tokai Regional Fisheries Research Laboratory), 161 pp., illus., printed in Japanese with some English summaries. Tokai Regional Fisheries Research Laboratory, Tsukishima, Chuo-ku, Tokyo, Japan. Includes, among others, the following articles: "Relation between Oceanographic Conditions and Distribution of Anchovy Eggs and Larvae in the Waters. The Case When the Net is Unsaturated Fatty Acid Bromides," by H. Higashi, S. Sakai; "Unsaturated Fatty Acid Bromides," by H. Higashi, S. Sakai; "A Survey of Fur Seal Liver Oil and Its Vitamin A Content," by Y. Shimma and H. Taguchi.


LAKE ERIE: Commercial Fisheries Catch Summary for Lake Erie. Ohio, in 1960, W-200, 6 pp., illus., printed. Division of Wildlife, Department of Natural Resources, 1500 Dublin Rd., Columbus, Ohio, 1961.


LIMNOLOGY: The Laboratory for Experimental Limnology 1954-59, Research Report No. 44, 24 pp., printed. Department of Lands and Forests, Ontario, Canada, January 1961. Discusses investigations completed and now in progress by the Laboratory for experimental limnology regarding the response of aquatic organisms to their environment. Investigations on temperature relations of salmonoids; respiration of speckled trout, goldfish, and carp; and behavior of the swimbladder in various salmonoids are described in detail. Also discusses the effect of the photoperiod on the reproduction of speckled trout and guppy; effect of oxygen on the development of fish eggs; hybrids of speckled and lake trout; and autecology of yellow perch.


MOZAMBIQUE:

MUSSELS:

NETS:


NEW ZEALAND:
Report of the Marine Department for the Year Ended 31 March 1961, 59 pp., printed. Covers the activities and accomplishments of the Marine Department, including a report on fisheries for 1960. The latter discusses the quantity and value of fish and shellfish landings, fishing vessels, total landings at various ports, foreign trade in fishery products, and fish-liver oil production. It also discusses the whaling season, oysters, mussels, fresh-water and marine research, and fishery legislation. A number of statistical tables are included.

NORTH CAROLINA:

NORWAY:

NUTRITION:
"Eating is Fun . . . for Older People, Too," 28 pp., illus., printed, single copy 30 cents (discount for orders of 5 or more). The American Dietetic Association, 620 No. Michigan Ave., Chicago 11, Ill., August 1961, designed for the use of managers of small nursing homes and homes for the aging. The contents are applicable to family use, also. The menu patterns are based upon the normal nutritional requirements of older people. Fish is included in some of the menus.

Step Lively and Control Weight, 6 pp., illus., printed, single copy 3 cents (discount for orders of 50 or more). The American Dietetic Association, 620 No. Michigan Ave., Chicago 11, Ill., August 1961.

OYSTERS:


PACIFIC ISLANDS:

PARASITES:

PHYSIOLOGY:


PLANKTON:

POLLUTION:

PRESERVATION:
Torry Research Station Annual Report, 1960, on the Handling and Preservation of Fish and Fish Products, 49 pp., printed, 3s. (about 42 U. S. cents).
Department of Scientific and Industrial Research, Charles House, 5-11 Regent St., London SW1, England, 1961. (Also available from Her Majesty's Stationery Office, 13A Castle St., Edinburgh 2, Scotland.) Describes accomplishments in research during 1960 on improvement of iced fish, freezing and cold storage, smoke curing, drying, canning, and fishery byproducts. Also includes work on effect of temperature on the multiplication of marine bacteria, fish muscle proteins, fat oxidation, dielectric properties of cod muscle, heat transfer in plate freezers, and many others. Also contains a list of reports and papers published during 1960 on the handling and preservation of fish and fish products.

PROTEINS:


Protein from Fish for Use as Supplementary Feed, by Klement Möhler and Raimund Vogel, German Patent No. 970,350, September 11, 1958, printed in German. Deutsches Patentamt, Zebruckenstrasse, 12, Munich 2, Germany.

QUALITY:

RADIOACTIVITY:

REACTIONS OF FISH:
Trade News, Department of Fisheries, Ottawa, Canada. Part 1 gives an account of the extensive pro-
gram of investigation of Atlantic salmon in Eastern Canada. It covers availability of adult salmon, dis-
tribution and use of salmon of known river origin, young salmon production, various environmental
changes, and studies of the behavior of young salmon. Part 2, the report on the management program,
consists of reviews prepared by personnel of fish-
ery groups connected with river studies, pollution
studies, hatcheries, hydro development, fresh-water
fish populations, and other miscellaneous projects.

SARDINES:
Aspects Biologicos y Economicos de la Pesqueria
de Sardina SARDINOPS CAERULEA (Girard, 1854)
En Aguas Mexicanas del Pacifico (Biological and
Economic Aspects of the Sardine, Sardinops caer-
ulea--Girard, 1854-- Fishery in Mexican Pacific
Waters), by Rodolfo Ramirez Granados, 130 pp.,
illus., printed in Spanish. Secretaria de Marina,
Direccion General de Pesca e Industrias Conexas,
Mexico D. F., Mexico, 1958.

SEAWEEDS:
"Chemical Studies on the Green Seaweed, I--Seasonal
Variations Reflected on Biochemical Composition of
Enteromorpha compressa and Ulva pertusa," by Kiyo
Mita, article, Bulletin of the Japanese Society of Scien-
tific Fisheries, vol. 26, October 1960, pp. 1010-1012,
published. Japanese Society of Scientific Fisheries, 6-
chome, Shiba-Kaigandori, Minato-ku, Tokyo, Japan.

SHARKS:
"Note on the Thermal Decomposition of Urea in the
Muscle of Shark Fish," by M. Suyama and T. Toku-
hiro, article, Journal of the Tokyo University of
University of Fisheries, 6-chome, Shiba-Kaigandori,
Minato-ku, Tokyo, Japan.

Shark: Unpredictable Killer of the Sea, by Thomas
Helm, printed, C$4.50. Dodd, Mead and Company

SHRIMP:
"A Special Case of Blackening of Preserved Shrimp," by L. Van Coillie, article, Revue Conserve Francaise et
Union Francaise, pp. 65-67, printed in French. Revue Conserve Francaise et Union Francaise, 1 Rue
de la Reale, Paris 1, France, 1957.

SMALL BUSINESS MANAGEMENT:
Depreciation Costs - Don't Overlook Them, by Carl
P. N. Jensen, Small Marketers Aid No. 68, 4 pp.,
published. Small Business Administration, Washing-
ton 25, D. C., June 1961. A report on the impor-
tance of considering depreciation costs in manag-
ing a small firm. Discusses depreciation as a
business expense. Explains how depreciation is
determined and emphasizes the importance of peri-
odically setting aside equipment-replacing funds.
Included is a simple record form which the owner-
manager can use to keep track of his depreciation
expenses.

Designing for Higher Profits, by Robert B. Sleight,
Technical Aids for Small Manufacturers No. 75,
4 pp., printed. Small Business Administration,
for businessmen and technical executives. In sum-
mary, the author states that "Designing for higher
profits often means building more comfort and con-
venience into equipment, work places, and methods.
It means trying to arrange the physical things as-
associated with a job in the best way for the operator.
Well-designed products are more salable. Well-
designed work places are more comfortable and
efficient. Well-designed methods are less costly.
Top technical people in small plants would do well
to look for the chances to improve design." This
aid tells of actual business situations and how they
were handled. These situations suggest approaches
which can be adapted by others to their own needs.

SOUTH CAROLINA:
Common Marine Fishes of South Carolina, by Charles
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malaw Island, S. C., July 1961. At least 250 species
of marine fish are found in South Carolina's marine
waters. Many of these species are commonly taken
by sports and commercial fishermen and some are
important food and game fish. This publication con-
tains information on the identities and habits of
some of the more common salt-water fish. Appro-
imately 20 species of salt-water fish, taken chiefly
by otter trawl, haul seine, and gill net, enter the
commercial catch annually. Spot, shad, and mullet
have made up the bulk of the commercial catch in
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mmercial fish.

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U. S. S. R.:

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WHITEFISH:
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