



RECENT FISHERY PUBLICATIONS

FISH AND WILDLIFE SERVICE PUBLICATIONS

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- CFS - CURRENT FISHERY STATISTICS OF THE UNITED STATES.
MNL - REPRINTS OF REPORTS ON FOREIGN FISHERIES.
SEP. - SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.
SL - STATISTICAL LISTS OF DEALERS IN AND PRODUCERS OF FISHERY PRODUCTS AND BYPRODUCTS.
SSR. - FISH. - SPECIAL SCIENTIFIC REPORTS--FISHERIES (LIMITED DISTRIBUTION).

Number	Title
CFS-3132	North Carolina Landings, January 1963, 4 pp.
CFS-3134	Fish Meal and Oil, January 1963, 2 pp.
CFS-3136	New Jersey Landings, January 1963, 4 pp.
CFS-3137	Virginia Landings, December 1962, 4 pp.
CFS-3140	Frozen Fishery Products, February 1963, 8 pp.
CFS-3141	Packaged Fishery Products, 1962 Annual Summary, 5 pp.
CFS-3143	New York Landings, January 1963, 4 pp.
CFS-3144	Canned Fishery Products, 1962 Annual Summary, 17 pp.
CFS-3145	Mississippi Landings, January 1963, 2 pp.
CFS-3147	Rhode Island Landings, January 1963, 3 pp.
CFS-3148	Shrimp Landings, August 1962, 8 pp.
CFS-3149	Louisiana Landings, January 1963, 2 pp.
CFS-3151	Massachusetts Landings, November 1962, 6 pp.
CFS-3152	Georgia Landings, February 1963, 3 pp.
CFS-3154	Virginia Landings, January 1963, 3 pp.
CFS-3155	South Carolina Landings, February 1963, 3 pp.
CFS-3156	North Carolina Landings, February 1963, 4 pp.
CFS-3157	Industrial Fishery Products, 1962 Annual Summary, 9 pp.
CFS-3158	Florida Landings, February 1963, 8 pp.
CFS-3200	Fisheries of the United States, 1962 (A Preliminary Review), 78 pp., illus., April 1963.

This bulletin includes 1962 statistics on the United States catch; historical fishery data; employment, craft, and plants; per capita consumption; manufactured fishery products; price indexes; value of military purchases of fishery products; population and fish supply; foreign trade; financial assistance programs; supplies of certain fishery products; and world fisheries. The catch in 1962 amounted to 5.2 billion pounds valued at \$381 million to the fishermen. Of the catch, 2.5 billion pounds were used for human food while the remainder was used for bait

and animal food and for the manufacture of industrial products. The per capita consumption of commercially-caught fish and shellfish in 1962 amounted to 10.5 pounds--0.2 pounds less than in the previous year. Included in the bulletin for the first time are estimated data on the consumption of domestic and imported fish and shellfish, and on the per capita consumption of fishery products in most of the important countries in the world. Also included is a tabulation showing years in which fishing vessels were constructed. In addition, there is a new section which lists, alphabetically, 16 species of fish and shellfish and, for each, the types of information presented and the pages on which each appears.

THE FOLLOWING MARKET NEWS LEAFLETS ARE AVAILABLE FROM THE FISHERY MARKET NEWS SERVICE, U. S. BUREAU OF COMMERCIAL FISHERIES, SUITE 611, WYATT BLDG., 777 14TH ST. NW., WASHINGTON 5, D. C.

Number	Title
MNL-63	Egyptian Fisheries, 1961, 8 pp.
MNL-77	Fisheries Survey of Ghana, 19 pp.
MNL-78	Fishery Developments in Senegal, 12 pp.
MNL-79	Fisheries Survey of Nigeria, 12 pp.

Sep. No. 675 - Comparison of Salmon Catches in Monofilament and Multifilament Gill Nets.

Sep. No. 676 - Present and Future Market for Fish Oil.

Firms Canning, 1962 (Revised):

SL-101	- Salmon, 3 pp.
SL-102	- Maine Sardines, 1 p.
SL-102A	- Pacific Sardines, 1 p.
SL-103	- Tuna, 2 pp.
SL-103A	- Tunalike Fishes, 1 p.
SL-104	- Mackerel, 1 p.
SL-105	- Alewives, 1 p.
SL-106	- Shad, 1 p.
SL-107	- Fish and Shellfish Specialities, 5 pp.
SL-109	- Caviar and Fish Roe, 2 pp.
SL-110	- Oysters, 2 pp.
SL-111	- Clam Products, 2 pp.

SSR-Fish, No. 401 - Survey of the Benthic Invertebrate Fauna of the Eastern Bering Sea, by Patsy A. McLaughlin, 77 pp., illus., 1963.

SSR-Fish, No. 430 - The Length, Age, and Sex Ratio of Chum Salmon in the Alaska Peninsula, Kodiak Island, and Prince William Sound Areas of Alaska, by Fredrik V. Thorsteinson, Wallace H. Noerenberg, and Howard D. Smith, 88 pp., illus., 1963.

SSR-Fish, No. 434 - Distribution of Fishing by Purse-Seine Vessels for Atlantic Menhaden, 1955-1959, by Charles M. Roithmayr, 26 pp., illus., 1963.

SSR-Fish, No. 438 - Length and Age Frequency Samples Collected from Georges Bank Haddock Landings, 1931-1955, by James A. McCann and Frank A. Dreyer, 131 pp., illus., 1963.

SSR-Fish, No. 439 - Length and Age Frequency Samples Collected from Georges Bank and Gulf of Maine Haddock Landings, 1956-1960, by James A. McCann and Frank A. Dreyer, 116 pp., illus., 1963.

Safety Manual for Fishermen, Captains, and Owners of New England Fishing Vessels, by John J. Murray, Circular 150, 68 pp., illus., printed, July 1962. This manual was prepared in accordance with the safety philosophies and safety practices of American industry. Deals with fundamentals and presents, in condensed form, safety suggestions and practices which, it is hoped, will soon become common knowledge. Among the subjects covered are deck and engineroom safety, lifesaving equipment, fire, weather worries, and first aid at sea. With all the policies, manuals, and rules, the best safety device is still "a careful man," according to the author.

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

(Baltimore) Monthly Summary--Fishery Products, February 1963, 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 Fisheries, 1962, by V. J. Samson, 52 pp., illus., March 1963. (Market News Service, U. S. Fish and Wildlife Service, Room 208, Post Office Bldg., San Pedro, Calif.) A review of 1962 trends and conditions in the California fisheries, including a historical review of California fish-meal prices, 1941-1962. Among the subjects discussed are the tuna industry and cannery receipts; domestic tuna fishery; decline in yellowfin catch; albacore fishery; ex-vessel tuna prices; canned tuna pack; imports; and status of California purse-seine fleets and the clipper-bait boat fleet in 1962. Also covered are the sardine industry and canned pack; mackerel fishery pack, and prices; anchovy fishery; canned pet-food pack; whaling industry; and seasons in major fisheries. Included in the statistical tables are data on tuna and tunalike fish--canners' receipts, domestic landings, frozen imported tuna, and canned pack, 1960-1962; sardine landings, pack, and meal and oil produced, 1961-1962 and 1962-1963 seasons; and the cannery receipts and pack of mackerel and jack mackerel, 1960-1962. Contains data on cannery receipts of raw materials and production of anchovies, herring, squid, pet food, and meal and oil; landings of fish and shellfish in the Eureka and San Pedro-Santa Monica areas; imports of fishery products into Arizona and California Customs Districts, 1961-1962; and California whale fishery, 1960-1962.

California Fishery Market News Monthly Summary, Part I - Fishery Products Production and Market

Data, February 1963, 14 pp. (Market News Service, U. S. Fish and Wildlife Service, Post Office Bldg., Room 208, San Pedro, Calif.) California cannery receipts of tuna and tunalike fish and other species used for canning; pack of canned tuna, tunalike fish, sardines, mackerel, and anchovies; market fish receipts at San Pedro, Santa Monica, and Eureka areas. California and Arizona imports; canned fish and frozen shrimp prices; ex-vessel prices for cannery fish; for the month indicated.

California Fishery Market News Monthly Summary, Part II - Fishing Information, March 1963, 16 pp., illus. (U. S. Bureau of Commercial Fisheries, Biological Laboratory, P. O. Box 6121, 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 month indicated.

Monthly Summary of Fishery Products Production in Selected Areas of Virginia, North Carolina, and Maryland, March 1963, 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--Annual Summary, 1962, by John J. O'Brien, 46 pp., illus., April 1963. (Market News Service, U. S. Fish and Wildlife Service, 10 Commonwealth Pier, Boston 10, Mass.) Reviews the fish marketing trends and conditions at the principal New England fishery ports, and highlights of fisheries in nearby areas. The development of a large-scale purse-seine tuna fishery in New England made considerable progress in 1962. The summary covers food-fish landings by ports and species; industrial fish landings and ex-vessel prices; fishing vessel news; imports; frozen fishery products; the fish-meal market; swordfish long-lining; Soviet vessels on Georges Bank; and other information. Also includes fishery landings and ex-vessel prices by months for ports of Boston, Gloucester, New Bedford, Provincetown, Portland, Rockland, Point Judith, and Stonington; highlights of the Maine sardine and lobster fisheries; events in the fisheries of Canada, Denmark, Iceland, Norway, Japan, and Peru; and historical data of fisheries at principal New England ports. In addition, contains data on monthly landings and ex-vessel prices, by species at Boston and Atlantic Ave. fish piers.

New England Fisheries--Monthly Summary, March 1963, 23 pp. (Market News Service, U. S. Fish and Wildlife Service, 10 Commonwealth Pier, Boston 10, Mass.) Review of the principal New England fishery ports. 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 (Point Judith), and Connecticut (Stonington); frozen fishery products prices to primary wholesalers at Boston, Gloucester, and New Bedford; and Boston

Fish Pier and Atlantic Avenue fishery landings and ex-vessel prices by species; for the month indicated.

Refrigeration (Table of Contents), by Junkichi Nagaoka and Kazuo Tanaka, 9 pp., processed. (Translated from the Japanese Suisangaku Zenshu, vol. 7, 458 pp.) (U. S. Fish and Wildlife Service, Bureau of Commercial Fisheries, 101 Seaside Ave., Terminal Island, Calif.)

Seattle--Landings, Receipts, and Value of Fishery Products, 1962, by Charles M. Reardon, 34 pp., April 1963. (Market News Service, U. S. Fish and Wildlife Service, 706 Federal Office Bldg., 909 First Ave., Seattle 4, Wash.) Reviews Pacific Northwest fisheries trends and their effect upon Seattle fishery receipts for 1962. Contains statistical tables on landings by U. S. halibut fleet; carload and truckload shipments of fishery products from Seattle by months; imports of canned fishery products; receipts of Alaska canned fish and shellfish; and names, classifications, and approximate standards as used on Seattle wholesale market. Also presents data on receipts of fresh and frozen fish and shellfish, fresh and frozen salmon receipts and imports, receipts of fresh and frozen king crab, Pacific oysters, and shrimp at Seattle, ex-vessel landings by the otter-trawl fleet, Puget Sound canned salmon pack, and related information.

(Seattle) Washington and Alaska Receipts and Landings of Fishery Products for Selected Areas and Fisheries, Monthly Summary, March 1963, 6 pp. (Market News Service, U. S. Fish and Wildlife Service, 706 Federal Office Bldg., 909 First Ave., Seattle 4, Wash.) Includes Seattle's landings by the halibut and salmon fleets reported through the exchanges; landings of halibut reported by the International Pacific Halibut Commission; landings of otter-trawl receipts reported by the Fishermen's Marketing Association of Washington; local landings by independent vessels; coastwise shipments from Alaska by scheduled and non-scheduled shipping lines and airways; imports from British Columbia via rail, motor truck, shipping lines, and ex-vessel landings; imports from other countries through Washington customs district; and Washington heads-on shrimp landings; for the month indicated.

MISCELLANEOUS PUBLICATIONS

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ALGAE:

**The Food Value of Diatomaceous Algae, by G. K. Barashkov, Trans. A-1375, 3 pp., processed. (Translated from the Russian, Priroda, no. 6, 1960, p. 100.)

"The Species of Gracilaria and Gracilariopsis from Japan and Adjacent Waters," by Hikoei Ohmi, article, Memoirs of the Faculty of Fisheries, Hokkaido University, vol. 6, no. 1, 1958, 66 pp., illus., printed in Japanese. Faculty of Fisheries, Hokkaido University, Hakodate, Japan.

ARGENTINA:

Peces Argentinos de Agua Dulce, Claves de Reconocimiento y Caracterizacion de Familias y Sub-Familias, con Glosario Explicativo (Argentina's Fresh-Water Fish. Keys to the Identification and Description of Families and Sub-Families with Explicit Glossary), by Raul A. Ringuet and Raul H. Aramburu, Agro Publicacion Tecnica, vol. 3, no. 7, March 1961, 102 pp., illus., printed in Spanish. Ministerio de Asuntos Agrarios, Buenos Aires, Argentina.

Peces Marinos de la Republica Argentina. Clave para el Reconocimiento de Familias y Generos (Marine Fish of the Republic of Argentina. Key to the Identification of Families and Genera), by Raul A. Ringuet and Raul H. Aramburu, Agro Publicacion Tecnica, vol. 2, no. 5, November 1960, 143 pp., illus., printed in Spanish. Ministerio de Asuntos Agrarios, Buenos Aires, Argentina.

Produccion Pesquera de la Republica Argentina Ano 1961 (Fishery Production in the Republic of Argentina, 1961), 113 pp., illus., processed in Spanish. Departamento de Investigaciones Pesqueras, Direccion General de Pesca, Secretaria de Estado de Agricultura y Ganaderia, Buenos Aires, Argentina.

CANADA:

"Canadian Fisheries in 1962," article, Trade News, vol. 15, no. 8, February 1963, pp. 9-12, 15, illus., processed. Information and Consumer Service, Department of Fisheries, Ottawa, Canada. Discusses the Atlantic fisheries, and the industry in the Maritime Provinces, Newfoundland, British Columbia, and the inland provinces. "Canadian fisheries were more prosperous in 1962 than at any previous time in their history. Top records of previous years were surpassed in every major sector with expansion spilling over to add impetus to the construction and boat-building industries also," according to the author.

Journal of the Fisheries Research Board of Canada, vol. 20, no. 1, January 1963, 254 pp., illus., printed, single copy C\$1.50. Queen's Printer and Controller Stationery, Ottawa, Canada. Includes, among others, these articles: "The Nature of an Unusual Amino Acid-Pyrimidine Complex from the Cod Parasite, Porrocaecum decipiens," by H. C. Freeman, P. L. Hoogland, and P. H. Odense; "Sampling the Catch of a Research Vessel," by J. E. Paloheimo and L. M. Dickie; "Estimation of Catchabilities and Population Sizes of Lobsters," by J. E. Paloheimo; "The Air Blowing of Cod Liver Oil. II--Changes in Fatty Acid Composition as Determined by Gas-Liquid Chromatography," by P. M. Jangaard and others; "Resumption of Feeding by and Survival of Adult Sockeye Salmon (Oncorhynchus nerka); Following Advanced Gonad Development," by J. R. McBride and others; "Oceanography of the Subarctic Pacific Ocean," by

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Michitaka Uda; and "An Estimation of the Mortality Rates in a Population of *Tilapia esculenta* Graham (Pisces, Cichlidae) in Lake Victoria, East Africa," by D. J. Garrod.

List of Publications. The Department of Fisheries of Canada, no. 1, October 1962, 21 pp., printed, Information and Consumer Service, Department of Fisheries of Canada, Ottawa, Canada. The publications listed include contributions by the various Services of the Federal Department of Fisheries, Dominion Bureau of Statistics, Fisheries Research Board of Canada and National Research Council. They include both sale and free copies and are of many types--periodicals, booklets, reprints of published articles, cookery bulletins, statistical reports, research circulars, and others.

CANNED FISH:

Report on the Market for Canned Fish, by G. M. Gerhardsen, E. P. A. Project No. 8/12-A, 334 pp., processed, limited distribution. Technical Actions Division, Agricultural Directorate, Organisation for Economic Co-Operation and Development, 2 Rue Andre Pascal, Paris, France, February 1963. (Also available (limited distribution) from Organisation for Economic Co-Operation and Development, 1346 Connecticut Ave. NW., Washington, D. C.) The final report of a survey based on information supplied by O. E. C. D. member countries in reply to a questionnaire, supplemented by data collected by the author. Canned fish constitutes not only a specially appreciated addition to modern food supplies but a permanent additional outlet for the fishermen, whose standard of living depends to some extent on the expansion of the fish-canning industry; states the foreword. After a brief account of the findings of the survey and a presentation of recommendations, the report discusses fishery products markets in Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Turkey, United Kingdom, United States, and Yugoslavia. Also presents statistics on markets in Austria and Switzerland.

CARP:

Report of the State Development Committee on the Introduction of European Carp into Victorian Waters, 24 pp., illus., printed. Fisheries and Wildlife Department, 605 Flinders St. Extension Melbourne C3, Australia, 1962. Presents research results and recommendations on eradication of the European carp in inland waters of the State of Victoria, Australia. European carp and its domesticated forms adversely affect the welfare of other species of fresh-water fish by competing directly with young fish of other species for food; competing with other species for space; and destroying aquatic vegetation. According to the report, it was recommended that enabling legislation be passed to destroy all carp now present in Victorian waters and prevent their further introduction.

COD:

Biological Characteristics of the Separate Groups of the Barents Sea Cod, by E. M. Mankevich, 14 pp., processed. (Translated from the Russian *Sovetskii Rybokhoziaistvennye Issledovaniia v Severo-Zapadnoi Chasti Atlinticheskogo Okeana*, pp. 253-266, 1960.) Ministry of Agriculture, Fisheries and Food,

Fisheries Laboratory, Lowestoft, Suffolk, England, 1962.

"Success to the Fisheries," article, Production Road, vol. 24, no. 4, 1962, pp. 3-4, illus., printed. Twin Disc Clutch Company, Racine, Wis. Discusses the history, food value, and economic significance of the cod in the New England fishery. The importance of the cod to the early history of this area was demonstrated by its being placed on the colonial seal of Massachusetts, and on the Nova Scotian banknote with the legend "Success to the Fisheries."

COMMON MARKET:

"Le Tarif Exterieur Commune Inquiete les Milieux Canadiens de la Peche" (Common External Tariffs of Concern to Canadian Fishing Circles), article, La Peche Maritime, vol. 42, no. 1019, February 1963, p. 112, printed in French, single copy 11 NF (about US\$2.25). Les Editions Maritimes, 190 Boulevard Haussmann, Paris 8, France.

CONNECTICUT:

A Fishery Survey of the Lakes and Ponds of Connecticut, Report no. 1, 395 pp., illus., printed. State Board of Fisheries and Game, Lake and Pond Survey Unit, Hartford, Conn., 1959.

CRABS:

Composition of the Diet of Far-Eastern Crabs of Commercial Quality During the Summer, by M. S. Kun and L. V. Mikulich, 12 pp., processed. (Translated from the Russian *Izvestia - Tinro*, vol. 41, 1954, pp. 319-332.) Ministry of Agriculture, Fisheries and Food, Fisheries Laboratory, Lowestoft, Suffolk, England, 1962.

The Feeding Habits of the Kamchatka Crab in the Spring-Summer Period on the Coasts of Kamchatka and Sakhalin, by V. A. Kulichkova, 21 pp., processed. (Translated from the Russian *Bull. Tinro*, vol. 43, 1955, pp. 21-43.) Ministry of Agriculture, Fisheries and Food, Fisheries Laboratory, Lowestoft, Suffolk, England, 1962.

CRUSTACEA:

Crustacea, Anomura, by V. V. Makarov, OTS 60-2132, 286 pp., illus., printed, \$3. (Translated from the Russian, *Fauna SSSR, Rakoobraznye*, vol. X, no. 3, 1938, Izdatel'stvo Akademii Nauk SSSR, Moscow, U.S.S.R.) Office of Technical Services, U.S. Department of Commerce, Washington 25, D. C., 1962.

"The Specific Features of the Copepod Populations of the Tropical Portion of Pacific Ocean from the Viewpoint of Age Composition," by A. K. Heinrich, article, Okeanologia, vol. 3 no. 1, January 1963, pp. 88-99, printed in Russian. *Akademiia Nauk SSSR*, Moscow, U.S.S.R.

CZECHOSLOVAKIA:

Prace Laboratoria Rybarstva (Studies Done in the Fisheries Laboratory at Bratislava, Czechoslovakia), 231 pp., illus., printed in Slovak with Russian and English summaries. Vydavatel'stvo Slovenskej Akademie Vied, Bratislava, Czechoslovakia, 1962. Includes, among others, these articles: "Seven Year Activity of Laboratory of Fishery Research in Bratislava," by Frantisek Havlena; "Age and Growth of the Chub (*Leuciscus cephalus* (L.) in Orava River

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(1944-1952), and in Orava Riverine Lake in the Years Following Its Filling (1953-1958)," by Eugeniusz K. Balon; "Age and Growth of the Chub (*Leuciscus cephalus* (L.) in the Vah River and Her Branches Near Piestany," by Anton Kirka; "Age and Growth of *Salmo trutta m. fario*, *Salmo gairdneri irideus*, *Salvelinus fontinalis*, and *Thymallus thymallus* in the brook of Vrica Near Klaster pod Znievom," by Anton Kirka; and "The Haul Seine Fishing on Danube River Near Palkovicovo," by Julius Bel.

DELAWARE RIVER:

Fishes and Ecological Conditions in the Shore Zone of the Delaware River Estuary, with Notes on Other Species Collected in Deeper Water, by Donald P. de Sylva, Frederick A. Kalber, Jr., and Carl N. Shuster, Jr., Information Series, Publication No. 5, 167 pp., illus., processed. University of Delaware Marine Laboratories, Newark, Del., April 1962.

DENMARK:

"Danmarks Produktion af Konserverede Levnedsmidler i 1960" (The Production of Canned Food Products in Denmark in 1960), by Poul Fr. Jensen, article, *Konserver & Dybfrost*, vol. 20, no. 11, 1962, pp. 138-140, 141, printed in Danish. *Konserver & Dybfrost*, Vester Farimagsgade, 31, Copenhagen V, Denmark.

FISH BEHAVIOR:

"Fish Behaviour. I--The Migrations of Fish," by A. D. Woodhead, article, *World Fishing*, vol. 12, no. 3, March 1963, pp. 37-39, illus., printed, single copy 3s. (about 42 U.S. cents). John Trundell & Partners Ltd., St. Richard's House, Eversholt St., London NW1, England.

FISH CULTURE:

Increased Harvest of Warm Water Fish Through Supplemental Feeding, by Ralph William Altman, 128 pp., illus., processed. (Submitted to the Faculty of the Graduate School of the Oklahoma State University in partial fulfillment of the requirements for the degree of Doctor of Philosophy, May, 1959.) Oklahoma State University, Stillwater, Okla.

FISH POPULATIONS:

Certain of the Laws Governing the Effect of Fishing Operations on the Structure of Populations and the Individual Characteristics of Fish Belonging to Commercially Exploited Stocks, by G. V. Nikolskii, 21 pp., processed. (Translated from the Russian *Trudy Soveshchaniy, Ikht. Kom.*, no. 13, pp. 21-33, 1961.) Ministry of Agriculture, Fisheries and Food, Fisheries Laboratory, Lowestoft, Suffolk, England, 1962.

The Laws Governing the Dynamics of Fish Populations, by T. F. Dementieva and others, 19 pp., processed. (Translated from the Russian *Trudy Soveshchaniy, Ikht. Kom.*, no. 13, pp. 7-20, 1961.) Ministry of Agriculture, Fisheries and Food, Fisheries Laboratory, Lowestoft, Suffolk, England, 1962.

FISHERY REGULATION:

Economic Effects of Fishery Regulation, edited by R. Hamlich, FAO Fisheries Reports No. 5, 566 pp., illus., processed. Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, 1962. Working papers and record of discussions of an FAO Expert Meeting on

the Economic Effects of Fishery Regulation, Ottawa, Canada, June 12-17, 1961. This meeting, in which economists, biologists, and administrators participated, was organized to take up discussions of the economic effects of fishing industry regulation where preceding FAO-sponsored conferences (the Round Table on the Economics of Fisheries in 1956 and the Technical Meeting on Costs and Earnings of Fishing Enterprises in 1958) had left off. Subjects covered include: the economics of regulating fisheries; effects of fishery regulations on the catch of fish; the economic effects of the regulation of the trawl fisheries of Japan; regulation in the North American lobster fishery; license limitation--British Columbia; regulation of the Pacific Coast halibut fishery; and regulation of the South African West Coast shoal fisheries. The appendices include these papers: "On some Aspects of Fishery Conservation Problems," and "Application of Mathematical Programming Techniques to Commercial Fishery Conservation Problems," by A. Zellner; "The Case for Regulations of the Shrimp Fishery of Panama," by L. K. Boerema and J. L. Obarrio; "Effects of Fishery Regulation on the Processing and Marketing of Fishery Products," by W. H. Stolting; and "Great Lakes Commercial Fishing Regulations," by K. D. Brouillard.

FISHING DEVICES:

Relative Selectivity of Freshwater Commercial Fishing Devices Used in Louisiana, by James Davis and Lloyd Posey, 27 pp., illus., processed. Louisiana Wild Life and Fisheries Commission, Baton Rouge, La., 1959.

FISHING LIMITS:

"Foreign Trawlers: Exclusion or Control?" article, *World Fishing*, vol. 12, no. 3, March 1963, pp. 29-32, illus., printed, single copy 3s. (about 42 U.S. cents). John Trundell & Partners Ltd., St. Richard's House, Eversholt St., London NW1, England.

FLORIDA:

The Shallow Water Amphiuroid Brittle Stars (Echinodermata, Ophiuroidea) of Florida, by Lowell P. Thomas, Contribution No. 425, 71 pp., illus., printed. (Reprinted from *Bulletin of Marine Science of the Gulf and Caribbean*, vol. 12, no. 4, December 1962, pp. 623-694.) The Institute of Marine Science, University of Miami, 1 Rickenbacker Causeway, Miami 49, Fla.

Some Relationships Between the Infauna of the Level Bottom and the Sediment in South Florida, by J. Kneeland McNulty, Robert C. Work, and Hilary B. Moore, Contribution No. 410, 11 pp., illus., printed. (Reprinted from *Bulletin of Marine Science of the Gulf and Caribbean*, vol. 12, no. 3, September 1962, pp. 322-332.) The Marine Laboratory, University of Miami, 1 Rickenbacker Causeway, Miami 49, Fla.

Summary of Florida Commercial Marine Landings, 1961, and an Analysis of the Catch and Effort of Certain Species, by Albert Rosen and Richard K. Robinson, 62-7, 30 pp., illus., printed. Florida State Board of Conservation, W. V. Knott Bldg., Tallahassee, Fla., 1962.

FOOD AND AGRICULTURE ORGANIZATION:

Indo-Pacific Fisheries Council Proceedings, 9th Session, Karachi, Pakistan, January 6-23, 1961, Section I,

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printed, \$1. Indo-Pacific Fisheries Council, Food and Agriculture Organization of the United Nations, Maliwan Mansion, Phra Atit Rd., Bangkok, Thailand.

Report of the International Conference on Fish in Nutrition (Washington, D. C., September 19-27, 1961), FAO Fisheries Report No. 1, processed, Fisheries Division, Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, 1962.

Report on the Meeting of an Expert Panel on Fish Meal and Fish Flour for Human Consumption (Washington, D. C., September 28-29, 1961), FAO Fisheries Report No. 4, processed, Fisheries Division, Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, 1962.

Report of the Preparatory Meeting on the Creation of a Consultative Fisheries Body in West Africa, Dakar, Senegal, May 15-20, 1961, printed, Fisheries Division, Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, 1962.

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While the greatest amount of detailed information relates to European countries, there also are lists of importers and exporters for Australia and for numerous countries in Africa, Asia, and North, South, and Central America. For example, the United States section has been expanded from 3 to 18 pages. Sections on Belgium, Denmark and the Faroe Islands, Finland, France, West Germany, Iceland, Netherlands, Norway, Sweden, and the United Kingdom contain catch statistics; a register of fishing vessels; lists of shipbuilders, gear manufacturers, and fish meal plants; and other information. Also included are international fisheries statistics compiled by the Food and Agriculture Organization; information on other European countries; and a herring atlas.

YEAR-BOOK :

Scandinavian Fishing Year-Book, 1962-63 (The European Fishing Handbook), edited by Jorgen Frimodt, 600 pp., illus., printed, \$6. Columbia University Press, International Documents Service, 2960 Broadway, New York 27, N. Y., 1963. The fifth edition of this reference book for those who produce, market, and buy fish has recently been issued in an expanded form, especially with regard to statistics, lists of importers and exporters, and international coverage.



SHARKS GET THE NEEDLE

Two Australian skin divers have perfected a hypodermic needle which is recessed in a rod shot from a conventional spear gun. Upon impact, the needle is forced into the shark, injecting a lethal dose of strychnine nitrate. The weapon kills in less than thirty seconds. (Sea Frontiers, May 1963.)



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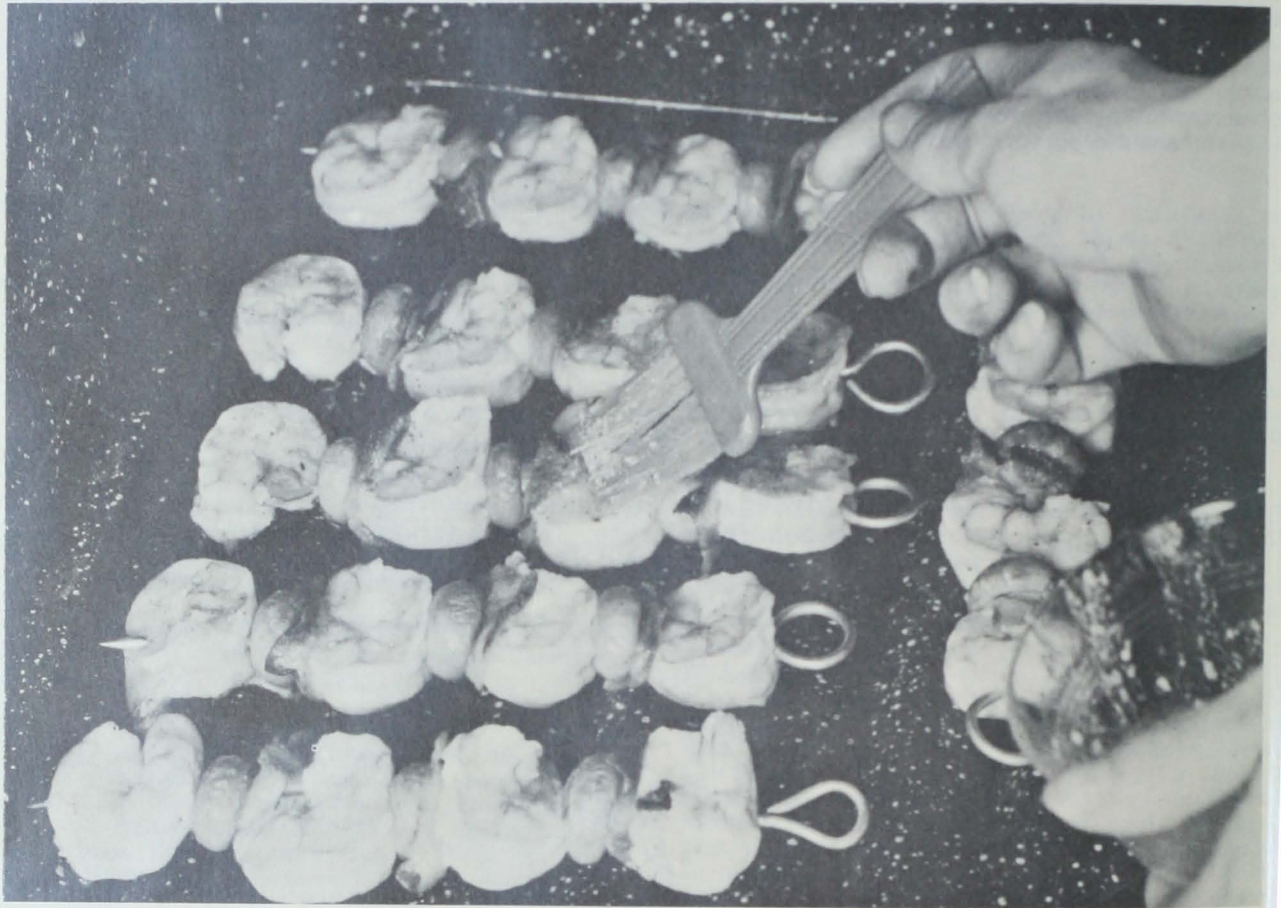
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Cover & p. 67--FAO photos; p. 8--Rex Schmidt; pp. 15-18--Robert K. Brigham; p. 20--R. C. Naab; pp. 43-45--C. Milton Silvia, New Bedford Standard-Times; p. 79--Arnie J. Suomela, American Embassy, Tokyo, Japan; p. 82--Don Hansen; and p. 128--G. T. Sundstrom.

SEAFOOD BARBECUE

With summer here, it's cook-out time again. If you are planning a backyard barbecue, a picnic, or a beach party, here's an outdoor fish cookery tip from the home economists of the U. S. Bureau of Commercial Fisheries: "Barbecued Shrimp Kabobs."

To round out your outdoor seafood barbecue, wrap potatoes and your favorite vegetables separately in heavy-duty foil and cook them on the barbecue grill, right along with the fish or shellfish. The final touch--a cool, refreshing beverage.



BARBECUED SHRIMP KABOBS

$\frac{3}{4}$ POUND COOKED SHRIMP, FRESH OR FROZEN	$\frac{1}{4}$ CUP SOY SAUCE
12 SLICES BACON	$\frac{1}{4}$ CUP SALAD OIL
1 CAN ($13\frac{1}{2}$ OUNCES) PINEAPPLE CHUNKS, DRAINED	$\frac{1}{4}$ CUP LEMON JUICE
1 CAN (4 OUNCES) BUTTON MUSHROOMS, DRAINED	$\frac{1}{4}$ CUP CHOPPED PARSLEY
	$\frac{1}{2}$ TEASPOON SALT
	DASH PEPPER

Thaw frozen cooked shrimp. Fry bacon slowly until cooked but not crisp. Cut each slice in half. Using long skewers, alternate shrimp, pineapple, mushrooms, and bacon until skewers are filled. Combine soy sauce, salad oil, lemon juice, parsley, salt, and pepper. Brush kabobs generously with sauce and place on preheated barbecue grill about 4 inches from moderately hot coals. Broil 3 minutes, turn and brush with sauce. Broil 3 minutes longer or until lightly browned. Serves 6.