



RECENT FISHERY PUBLICATIONS

FISH AND WILDLIFE SERVICE PUBLICATIONS

THESE PROCESSED PUBLICATIONS ARE AVAILABLE FREE FROM THE OFFICE OF INFORMATION, U. S. FISH AND WILDLIFE SERVICE, WASHINGTON 25, D. C. TYPES OF PUBLICATIONS ARE DESIGNATED AS FOLLOWS:

CFS - CURRENT FISHERY STATISTICS OF THE UNITED STATES.
FL - FISHERY LEAFLETS.
MNL - REPRINTS OF REPORTS ON FOREIGN FISHERIES.
SEP. - SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.
SSR.-FISH. - SPECIAL SCIENTIFIC REPORTS--FISHERIES (LIMITED DISTRIBUTION).

Number	Title
CFS-2862	- Canned Fishery Products, 1961 Annual Summary (Revised), 16 pp.
CFS-2863	- Industrial Fishery Products, 1961 Annual Summary (Revised), 9 pp.
CFS-3005	- Oregon Landings, 1961 Annual Summary, 2 pp.
CFS-3006	- Washington Landings, 1961 Annual Summary, 2 pp.
CFS-3010	- New England Fisheries, 1961 Annual Summary, 10 pp.
CFS-3020	- Frozen Fish Report, October 1962, 8 pp.
CFS-3028	- Louisiana Landings, July 1962, 2 pp.
CFS-3029	- Texas Landings, July 1962, 3 pp.
CFS-3030	- Texas Landings, August 1962, 3 pp.
CFS-3034	- New Jersey Landings, September 1962, 4 pp.
CFS-3035	- Georgia Landings, September 1962, 2 pp.
CFS-3037	- North Carolina Landings, September 1962, 3 pp.
CFS-3040	- Fish Meal and Oil, September 1962, 2 pp.
CFS-3041	- Louisiana Landings, August 1962, 2 pp.
CFS-3042	- South Carolina Landings, September 1962, 2 pp.
CFS-3043	- Chesapeake Fisheries, 1961 Annual Summary, 8 pp.
CFS-3045	- California Landings, August 1962, 4 pp.
CFS-3046	- Mississippi Landings, September 1962, 3 pp.
CFS-3047	- Rhode Island Landings, September 1962, 3 pp.
CFS-3048	- Wisconsin Landings, September 1962, 2 pp.
CFS-3049	- Virginia Landings, September 1962, 4 pp.
CFS-3050	- Louisiana Landings, September 1962, 2 pp.
CFS-3053	- New York Landings, September 1962, 4 pp.
CFS-3057	- Maine Landings, September 1962, 4 pp.
CFS-3058	- Maryland Landings, October 1962, 3 pp.
CFS-3059	- Fish Meal and Oil, October 1962, 2 pp.
CFS-3063	- Florida Landings, October 1962, 8 pp.
FL-91	- Turtles in the Home Aquarium, 2 pp., May 1962 (Revised).

FL-539 - List of Circulars of the U. S. Fish and Wildlife Service, by Lola T. Dees, 11 pp., May 1962.

FL-542 - Fisheries Loans for Vessels, Gear, and Research--Policies, Applications, Repayments, 9 pp., printed, August 1962. The Fisheries Loan Fund, established by the Fish and Wildlife Act of 1956, authorizes the Secretary of the Interior to approve loans to owners of fishing vessels and fishing gear, and to persons doing research into basic problems of the fisheries. It is a revolving fund which must be returned to the U. S. Treasury on June 30, 1965. This leaflet discusses loan purposes, credit requirements, eligibility, loan terms, collateral, and loan applications. It also covers processing applications, compensation for services, loan closing, repayment of loan, and insurance requirements.

Sep. No. 664 - Shellfish Hatcheries and Their Future.

Sep. No. 665 - Modifications of Chesapeake Bay Commercial Crab Pot.

Sep. No. 666 - Fish Consumption by Food Stamp and Related Low-Income Families.

SSR.-Fish. No. 427 - Whirling Disease of Trouts Caused by *Myxosoma cerebralis* in the United States, by Glenn L. Hoffman, Clarence E. Dunbar, and Arthur Bradford, 17 pp., illus., June 1962.

Effects of Pesticides on Fish and Wildlife: A Review of Investigations during 1960, Circular 143, 57 pp., processed, 1962.

List of Research Reports (Bureau of Sport Fisheries and Wildlife), 5 pp., August 1962.

List of Special Scientific Reports--Wildlife (Bureau of Sport Fisheries and Wildlife), 5 pp., August 1962.

The 1960 Salt-Water Angling Survey, by John R. Clark, Circular 153, 40 pp., 1962. An opportunity to obtain estimates of the sport catch of salt-water fish for the whole country was provided by the 1960 National Survey of Fishing and Hunting, conducted by the Bureau of the Census for the Bureau of Sport Fisheries and Wildlife. This survey had as its purpose a determination of the economic significance of both sport fishing and hunting. A plan for estimating angler's catches was included by special arrangements with the Bureau of the Census. The information resulting from the supplementary salt-water survey is the subject of this report.

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-13	- Indian Fishing Industry, 1961, 23 pp.
MNL-62	- Centolla Industry in Tierra del Fuego (Argentina-Chile), 33 pp.

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

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

California Fishery Market News Monthly Summary, Part II - Fishing Information, November 1962, 9 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 for the month indicated.

Halibut and Troll Salmon Landings and Ex-Vessel Prices for Seattle, Alaska Ports and British Columbia, 1962-61, 35 pp., December 1962. (Market News Service, U. S. Fish and Wildlife Service, 706 Federal Office Bldg., Seattle 4, Wash.) Gives landings and ex-vessel prices of troll salmon and halibut at leading United States ports of the Pacific Coast; ex-vessel halibut prices and landings at leading British Columbia ports; United States and Canadian Pacific Coast halibut landings, 1936-1962; Seattle season averages of ex-vessel halibut prices, 1952-1962; and troll salmon landings and receipts at Seattle and Alaska ports, with comparative data.

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

New England Fisheries--Monthly Summary, October 1962, 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 by species 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 type of gear; for the month indicated.

New England Whiting Fishery, and Marketing of Whiting Products, 1946-61, by John J. O'Brien, 41 pp., illus., December 1962. (Market News Service, U. S. Fish and Wildlife Service, 10 Commonwealth Pier, Boston 10, Mass.) Summarizes all the pertinent data scattered through many Market News Service reports and other publications for a period of years on the whiting fishery of New England. Included is a brief analysis of the trends in the 1946-61 period, and all the important developments that affected the New England whiting fishery and the marketing of whiting products. The introduction gives some of the history of the fishery. This report was prepared as an aid to those in the industry producing whiting and marketing whiting products and the economists, biologists, and technologists studying the whiting fishery and industry.

New York City's Wholesale Fishery Trade--Monthly Summary--October 1962, 20 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.

Role of Fish in Diets for Control of Blood Cholesterol Levels, by Maurice E. Stansby, Commercial Fisheries TL 32, 6 pp., processed, February 1961. (Branch of Technology, U. S. Bureau of Commercial Fisheries, Washington 25, D. C.) The purpose of this report is to amplify on the role of fish in human diets with respect to the effect on blood cholesterol levels, and to show how increasing the consumption of fish may be beneficial. Discusses factors controlling incidence of atherosclerosis, polyunsaturated fatty acids, use of oily fish in the diet, and use of non-oily fish in the diet.

(Seattle) Washington and Alaska Receipts and Landings of Fishery Products for Selected Areas and Fisheries, Monthly Summary, November 1962, 8 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; direct shipments to local dealers from local and non-local sources; coastwise shipments from Alaska by scheduled and non-scheduled shipping lines and airways; imports from British Columbia via rail, motor truck, shipping lines, and ex-vessel landings; and imports from other countries through Washington customs district; for the month indicated.

The Spiny Dogfish - a Review, by Albert C. Jensen, Robert L. Edwards, and George C. Matthiessen, Report No. 61-7, 42 pp., processed. (U. S. Bureau of Commercial Fisheries Biological Laboratory, Woods Hole, Mass., 1961.)

THE FOLLOWING ENGLISH TRANSLATIONS OF FOREIGN LANGUAGE ARTICLES ARE AVAILABLE ONLY FROM THE BRANCH OF FOREIGN FISHERIES AND TRADE, U. S. FISH AND WILDLIFE SERVICE, WASHINGTON 25, D. C.

The Development of the Sakhalin and Kurile Islands Fishing Industry, by Sh. Nadibaidze, 5 pp., processed. (Translated from the Russian, Rybnoe Khoziaistvo, vol. 37, no. 12, 1961, pp. 6-11.)

Exploitation of New Fisheries in the Far East, by M. Drozdov, 5 pp., processed. (Translated from the Russian, Rybnoe Khoziaistvo, vol. 37, no. 10, October 1961, pp. 46-50.)

Ocean Perch Fishing in the Bering Sea, 2 pp., processed. (Translated from the Russian, Rybnoe Khoziaistvo, vol. 37, no. 12, 1961, pp. 53-57.)

The Tasks of the Fishing Industry in 1962 for Far Eastern Fishermen, 2 pp., processed. (Translated from the Russian, Rybnoe Khoziaistvo, vol. 38, no. 1, 1962, pp. 3-8.)

THE FOLLOWING ENGLISH TRANSLATIONS OF FOREIGN LANGUAGE ARTICLES ARE AVAILABLE ONLY FROM THE U. S. BUREAU OF COMMERCIAL FISHERIES BIOLOGICAL LABORATORY, 2725 MONTLAKE BLVD., SEATTLE, WASH.

Air Transportation of Fish Species in Soviet Russia, by E. Loktionov, 2 pp., processed. (Translated from the Norwegian, Fiskets Gang, vol. 47, no. 44, November 2, 1961, p. 707.)

Observations of Fish-Shoals from an Aeroplane, by Shizuo Takashima and Yoshiji Ogawa, 2 pp., processed. (Translated from the Japanese, Gyoruigaku Zasshi, vol. 8, nos. 3-4, July 1961, pp. 65-68.)

Lipids of the Muscle of Tuna, THYNNUS ORIENTALIS, VII--Distribution of Lipids in Dark-Colored Muscle, Ordinary Muscle, and Several Other Tissues, by Muneo Katada, Koichi Zama, and Hisanao Igarashi, 7 pp., processed. (Translated from the Japanese, Nihon Suisan Gakkai Shi, vol. 26, no. 4, April 1960, pp. 425-429.)

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

Atlas of the Oceanographic Climate of the Hawaiian Islands Region, by Gunter R. Seckel, Fishery Bulletin 193 (from Fishery Bulletin of the Fish and Wildlife Service, vol. 61, pp. 371-427), 61 pp., illus., printed, 40 cents, 1962.

Effect of Certain Electrical Parameters and Water Resistivities on Mortality of Fingerling Silver Salmon, by John R. Pugh, Fishery Bulletin 208 (from Fishery Bulletin of the Fish and Wildlife Service, vol. 62, pp. 223-234), 16 pp., illus., printed, 15 cents, 1962.

Pompanos (TRACHINOTUS Sp.) of South Atlantic Coast of the United States, by Hugh M. Fields, Fishery Bulletin 207 (from Fishery Bulletin of the Fish and Wildlife Service, vol. 62, pp. 189-222), 38 pp., illus., printed, 30 cents, 1962.

Sport Fishing--Today and Tomorrow, ORRRC Study Report 7, 137 pp., illus., printed, 65 cents, 1962. A report to the Outdoor Recreation Resources Review Commission. Following a survey conducted by the Bureau of Sport Fisheries and Wildlife, the following recommendations were made: (1) the sport fisheries should receive wider recognition as a resource of

national significance; (2) provision of recreational fishing should be recognized as one phase of water-resource management, where all compatible uses are encouraged and developed; (3) three main problems that must be given attention--(a) greater provision for public access to all types of water, (b) correction and prevention of damaging pollution and siltation in all waters, (c) improved financing; (4) the need for more facts to guide the management of fishery resources is imperative; (5) some areas of responsibility for sport fishing are not clear, especially in the marine waters; (6) strong efforts must be taken to preserve and protect natural shorelines of large rivers, lakes, ocean beaches, and estuaries from physical damage and destruction; and (7) waters affording fishing opportunities near large centers of population are one of the most critical needs of the fishing public.

MISCELLANEOUS PUBLICATIONS

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM. CORRESPONDENCE REGARDING PUBLICATIONS THAT FOLLOW SHOULD BE ADDRESSED TO THE RESPECTIVE ORGANIZATIONS OR PUBLISHER MENTIONED. DATA ON PRICES, IF READILY AVAILABLE, ARE SHOWN.

ADDITIVES:

"Food Additives. V--Antioxidative Effect of Sulfur-Containing Fatty Acids on Vitamin A in Fish-Liver Oil," by Masuo Akagi and Isamu Aoki (Hokkaido University, Sapporo, Japan), article, Chemical Abstracts, vol. 55, September 4, 1961, 17933f, printed. The American Chemical Society, 1155 16th St NW., Washington, D. C.

ALGAE:

"The Blue-Green Algae of the Philippines," by Gregorio T. Velasquez (University of the Philippines, Quezon City, Philippines), article, The Philippine Journal of Science, vol. 91, no. 3, September 1962, pp. 267-380, illus., printed, single copy \$2. National Institute of Science and Technology, P. O. Box 774, Manila, Philippines.

"El Comercio de Algas en Espana" (The Algae Industry in Spain), by Jose Maria Visea, article, Industrias Pesqueras, vol. 36, no. 851, October 1, 1962, p. 338, printed in Spanish, single copy 10 ptas. (about 17 U. S. cents). Industrias Pesqueras, Policarpo Sanz, 21-2^o, Vigo, Spain.

Investigations Regarding the Distribution of Carrageen Algae. Our Investigations Regarding the Distribution of Carrageen Algae in Nordland, by Gulbrand Lunde and Sigurd Lunde, 11 pp., printed. (Translated from the Norwegian, Fiskeridirektoratets Skrifter, Serie Havundersokelser, vol. 5, no. 5, 1938, pp. 6-19.) Technical Services Branch, Division of Oceanography, U. S. Navy Hydrographic Office, Washington 25, D. C.

"Seasonal Aspect of the Marine Algal Flora of St. Lucie Inlet and Adjacent Indian River, Florida," by Ronald C. Phillips, article, Quarterly Journal of the Florida Academy of Science, vol. 24, no. 2, 1961, pp. 135-147, illus., printed. Quarterly Journal of the Florida Academy of Science, University of Florida, Gainesville, Fla.

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ANCHOVY:

"The Maturation Process in Anchovy," by F. Alm, article, *Arsredogorelse*, July 1, 1959-June 30, 1960, SIK-Rapport No. 90, pp. 43-44, printed, Svenska Institutet for Konserveringsforskning, Goteborg, Sweden, 1960.

ANTIBIOTICS:

"Influence of Tetracycline Antibiotics on the Spoilage of Herring (*C. harengus*)," by N. N. De Silva, and R. B. Hughes (Torry Research Station, Aberdeen, Scotland), article, *Journal of the Science of Food and Agriculture*, vol. 13, March 1962, pp. 161-168, printed. The Society of Chemical Industry, 14 Belgrave Sq., London SW1, England.

BARENTS SEA:

Soviet Investigations on the Biology of the Cod and Other Demersal Fishes of the Barents Sea, by N. Maslov, 42 pp., printed. (Translated from the Russian, article, *Soviet Fishery Investigations in North European Seas, 1960*, pp. 185-230.) Fisheries Laboratory, Ministry of Agriculture, Fisheries and Food, Lowestoft, Suffolk, England, 1962.

BELGIUM:

Marking and Labeling Requirements of Belgium, WTIS Part 2, Operations Report No. 62-60, 2 pp., printed, 10 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., October 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Presents information on the mark-of-origin requirement; regulations for marking specific types of goods; labeling requirements for canned foodstuffs, artificial coloring of foodstuffs, all products prepared for retail sale; and other related information.

BIOCHEMISTRY:

"Enzymic Studies on the Glycolysis of Fish Muscle. II--Colorimetric Method for the Determination of Sugars in Muscles," by Fumio Nagayama and others (Tokyo University of Fisheries, Tokyo, Japan), article, *Chemical Abstracts*, vol. 55, May 15, 1961, 9546d, printed. The American Chemical Society, 1155 16th St. NW., Washington, D. C.

"Simple Method of the Determination of the Glycogen Content of Marine Animals," by V. V. Srinivasan and S. Krishnaswamy (University of Madras, Madras, India), article, *Chemical Abstracts*, vol. 56, March 19, 1962, 6302i, printed. The American Chemical Society, 1155 16th St. NW., Washington, D. C.

BRAZIL:

Atividades do "Albocora" em 1960 (Activities of the Albacore in 1960), by Melquiades Pinto Paiva and Maria Ivone Mota, Boletim No. 4, 18 pp., illus., printed in Portuguese. Universidade do Ceara, Estacao de Biologia Marinha, Fortaleza, Brazil.

Sudene, Boletim de Estudos de Pesca, vol. 2, no. 7, July 1962, 24 pp., printed in Portuguese. Departamento de Estudos Especiais, Division de Pesca, Superintendencia do Desenvolvimento do Nordeste, Edificio Juscelino Kubitschek, 12º Andar, Recife, Brazil. Includes, among others, the following articles: "Sobre a biologia da lagosta Cabo-verde *Panulirus laeicauda*

(Latreille)" (On the Biology of the Cape Verde Spiny Lobster *Panulirus laeicauda*--Latreille), by Petronio A. Coelho; "Um metodo a experimentar no Nordeste: pescaria noturna com lampadas" (A Method of Experimenting in the Northeast: Night Fishing with Lights); "Experiencia de pesca com caiques na costa setentrional nordestina" (Experience with the Fishery with Small Boats--Experience of Long-Line Fishing Vessels Off Northwest Coast of Africa), by Melquiades Pinto Paiva; "Lagostas que ocorrem no Nordeste Brasileiro" (Spiny Lobsters Which Occur in the Brazilian Northeast), by Petronio A. Coelho; "Sobre o peso das lagostas capturadas em Pernambuco" (On the Weight of Spiny Lobsters Landed in Pernambuco); and "Equipamentos usados na pesca das lagostas na Australia" (Gear Used in Spiny Lobster Fishery in Australia).

CANADA:

The Canadian Fish Culturist, Issue 31, October 1962, 57 pp., illus., printed. Information and Consumer Service, Department of Fisheries, Ottawa, Canada. Includes articles on: "Some Water Pollution Problems Connected with the Disposal of Pulp Mill Wastes," by Michael Waldichuk; "The Need and Value of Water Quality Criteria with Special Reference to Aquatic Life," by Clarence M. Tarzwell; and "The Salmon Fishery in Nova Scotia," by N. E. J. MacEachern and J. R. MacDonald

"Investigation and Management of Atlantic Salmon and Trout (Summary of 1961-62 Reports). Part 1--The Research Program; Part 2--The Management Program," articles, *Trade News*, vol. 15, no. 2, August 1962, pp. 3-17, illus., processed. Information and Consumer Service, Department of Fisheries, Ottawa, Canada. Part 1 gives an account of the extensive program of investigation of Atlantic salmon and trout in Eastern Canada. It covers catch statistics, availability of adults, production of young salmon, distribution and use of salmon of Miramichi origin, environmental changes, and physiological studies of salmon. It also covers results of brook and rainbow trout investigations--character of Maritime fresh waters, basic problems and experimental approach, annual fluctuations in standing crops of brook trout in a small stream, physical alterations of stream environments to improve brook trout production and utilization, yields of brood trout from natural and artificial recruitment, estuarial stocking of brook trout, and relative value of rainbow and brook trout in utilizing the productive capacities of Maritime fresh waters. Part 2 covers hatchery and pond operations, engineering service, biological service, adult salmon transfer, effect on salmon of new oil refinery and proposed new pulp mill, salmon net mesh experiment, river reconnaissance surveys, mine wastes disposal studies, exploits river development, lake investigations, fishway construction and remedial work, Placentia water supply, and the Indian River diversion project.

CAPELIN:

"Capelin and the Capelin Fishery," by Dag Moller and Steinar Olsen article, *Fiskets Gang*, vol. 48, January 18, 1962, pp. 27-36, printed in Norwegian. Fiskets Gang, Fiskeridirektoratet, Radstuplass 10, Bergen, Norway.

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM.

Some Data on the Biology and Fishery of the Barents Sea Capelin, by Iu. Pozdnyakov, 26 pp., printed. (Translated from the Russian, Regular Features in the Concentrations and Migrations of Commercial Fishes in the Murman Coastal Zone, and Their Relation to Biological, Hydrological and Hydrochemical Processes, 1958, pp. 150-175.) Fisheries Laboratory, Ministry of Agriculture, Fisheries and Food, Lowestoft, Suffolk, England.

CEPHALOPODS:

Brain and Behavior in Cephalopods, by M. J. Wells, 171 pp., illus., printed, \$4.50. Stanford University Press, Stanford University, Calif.

CHESAPEAKE BAY:

Water Temperatures, Salinities, and Fishes Collected during Trawl Surveys of Chesapeake Bay and York and Pamunkey Rivers, 1956-1959, by William Henry Massmann, Special Scientific Report No. 27, 27 pp., printed. Virginia Institute of Marine Science, Gloucester Point, Va., 1962.

CHILE:

"Notas Preliminares Sobre la Fauna Marina Preabis-
mal de Chile, con Descripcion de una Familia de
Rayas, Dos Generos y Siete Especies Nuevos" (Pre-
liminary Notes on the Deep Sea Marine Fauna of
Chile, with Description of a Family of Rays, Two
Generas, and Seven New Species), by Fernando de
Buen, article, La Fauna Marina Preabis-
mal de Chile, Bulletin, vol. 27, no. 3, pp. 171-201, printed in Span-
ish. Museo Nacional de Historia Natural, Santiago,
Chile, 1959.

CHILLING OF FISH:

"Refrigeration Equipment Applied in the Mechanical
Chilling of Fish During Transport," by A. W. Lantz
(Fisheries Research Board of Canada), article, Prog-
ress Reports of the Biological Station and the Tech-
nological Unit No. 1, September 1959, pp. 38-40,
printed. Fisheries Research Board of Canada, Bio-
logical Station, London, Ontario, Canada.

CLAMS:

Growth and Mortality Rates of the Razor Clam (SILI-
QUA PATULA) on Clatsop Beaches, Oregon, by George
Hirschhorn, Contribution No. 27, 55 pp., illus., printed.
Fish Commission Research Laboratory, Route 1, Box
31A, Clackamas, Oreg., June 1962. The areas most
productive of the Pacific razor clam in Oregon are
Clatsop Beaches, characterized by flat beach-face
slope and small sand-size. They have supported com-
mercial and sport clam fisheries for many years under
regulations which provided until 1954 for a minimum
size limit of 3.5 inches in commercial catches and a
limit of 36 clams by recreational diggers. Neither
fishery has been subject to seasonal restrictions at
any time, nor to quota limitations. In this study a de-
scription of this fishery is attempted by estimating
the rates of growth and mortality essential to the deter-
mination of optimum yields. Following validation of
the ring method of age determination for Clatsop
stocks, the seasonal variation in weight and linear
growth is examined as well as variations in linear
growth of clams between beaches. Mortality rates
are estimated from a census on one of the smaller
Clatsop Beaches in 1952 and 1953 which included the
use of serially marked clams. Finally, potential
yield is examined as a function of age at first capture.

"Reproducibility of the Most Probable Numbers Tech-
nique for Determining the Sanitary Quality of Clams,"
by Donald W. Lear (Chesapeake Biological Labora-
tory, Solomons, Md.), article, Applied Microbiology,
vol. 10, January 1962, pp. 60-64, printed. Applied
Microbiology, Williams and Wilkins Co., 428 E. Pres-
ton St., Baltimore 2, Md.

COD:

Further Studies on Vitamins and the Reproductive Cy-
cle of Ovaries in Cod (GADUS MORRUHA), by Olaf
R. Braekkan and Gjermund Boge, Fiskeridirekto-
ræts Skrifter Serie Teknologiske undersøkelser (Re-
ports on Technological Research Concerning Nor-
wegian Fish Industry), vol. 4, no. 2, 14 pp., illus.,
printed. A/S John Griegs Boktrykkeri, Bergen, Nor-
way, 1962.

COMPOSITION:

"Elementary Composition of the Mineral Substance in
Fish, Mollusk, and Crustacean Meat," by P. V. Ki-
zeveter, article, Chemical Abstracts, vol. 55, March
20, 1961, 5799d, printed. The American Chemical
Society, 1155 16th St. NW., Washington, D. C.

"Inorganic Chemical Constituents in Sea Fish. IV--
The Chemical Elements and Relative Quantities of Ca
and P in Katsuwonus pelamis," by Noboru Imanishi
(University of Kochi, Kochi, Japan), article, Chemical
Abstracts, vol. 55, May 15, 1961, 9699f, printed. The
American Chemical Society, 1155 16th St. NW., Wash-
ington, D. C.

"Studies on the Chemical Composition of Muscle Tis-
sue. I--The Muscles of the Hagfish, Myxine glutinos,
and the Roman Eel, Muraena helena," by James D.
Robertson (University of Glasgow, Glasgow, Scotland),
article, Chemical Abstracts, vol. 55, May 29, 1961,
10727e, printed. The American Chemical Society,
1155 16th St. NW., Washington, D. C.

CONNECTICUT:

Connecticut Boating Guide, 39 pp., illus., printed. Boat-
ing Safety Commission, Department of Agriculture
and Natural Resources, Hartford, Conn. In 1961, the
Connecticut General Assembly passed Public Act No.
506 concerning "The Registration of Motorboats" and
Public Act No. 520 concerning "The Creation of a
Boating Safety Commission and Establishing Boating
Safety Regulations." According to the report, "These
laws and the recent regulations promulgated by the
Boating Safety Commission have been designed to be
compatible with the Federal Boating laws in order
that the boating public would not be subject to widely
different requirements on Connecticut State or Fed-
eral waters. The growing popularity of boating and
the resulting increase in water traffic make it im-
perative that each pleasure boat operator know and
carefully observe these laws and regulations estab-
lished to protect him and his neighbors using the wa-
ters of this State." The pamphlet contains the essen-
tial elements of the laws and regulations, digests of
ordinances which were received and reviewed by the
commission, and other helpful information for the
benefit of the boat owner and operator.

DEODORIZATION:

"Deodorization of Marine Animal Oil, and Properties
of the Deodorized Oil," by T. Tsuchiya and T. Tanaka,

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article, Chemical Abstracts, vol. 56, April 2, 1962, 7453g, printed. The American Chemical Society, 1155 16th St. NW., Washington, D. C.

"Removal of the Fishy Odor from Whale Oil by High-Frequency Current," by T. A. Khorin (Fat-Combine, Troitsk, U. S. S. R.), article, Chemical Abstracts, vol. 55, October 2, 1961, 20461g, printed. The American Chemical Society, 1155 16th St. NW., Washington, D. C.

DIRECTORIES:

Fisheries Year-Book and Directory, 1962, 486 pp., illus., printed in English with French summary, British-Continental Trade Press Ltd., 222 Strand, London, England. Includes articles on the British fishing industry, Icelandic fisheries and exports, the fishing industry of the Federal Republic of Germany, Soviet production and plans, United States fisheries, the fishing industry around the world, progress in fish freezing, and the problems of the fish frier. Also covers international index of fish containers, fish supply calendar, dictionary of fish names, organizations and trade associations, trade journals, preservation of fish, world fishery research, accelerated freeze-drying, byproducts plant on board ship, fishing vessel design and construction, and fishing vessels completed or on order. The directory section contains names and addresses of exporters, producers, and trawler owners; importers and wholesalers; fish canners and bottlers; manufacturers of machinery and equipment for fish processing and refrigeration; producers of packing machinery and materials; suppliers for fisheries; manufacturers of fishery byproducts; cold storage and transport operators; and classified list of advertisers.

Marine Digest Pacific Northwest Maritime Directory and World-Wide Shipping Guide, 1962, 393 pp., illus., printed, \$2. Marine Digest Publishing Company, 79 Columbia St., Seattle 4, Wash., 1962. The world-wide shipping guide of steamship services from Washington, Oregon, and British Columbia areas lists ports alphabetically in the region of the world where they are situated. Under each port are the lines that maintain a service into that port from the Pacific Northwest. In the directory, key personnel of leading companies are cross-indexed. The directory covers the Washington ports of Seattle, Tacoma, Olympia, Gray's Harbor, Willapa Harbor, Longview, Vancouver, Port Angeles, Everett, Anacortes, and Bellingham; Oregon ports of Portland, Astoria, and Coos Bay; and British Columbia ports of Vancouver, New Westminster, Victoria, Nanaimo, Alberni, Chemainus, Courtenay-Campbell River, and Vancouver Island. Also includes a marine buyers' guide which lists alphabetically a number of products and services.

DOGFISH:

"Dogfish Gelatin," by Shirley E. Geiger, Eve Roberts, and N. Tomlinson (Fisheries Research Board of Canada Technological Station, Vancouver, British Columbia), article, Journal of the Fisheries Research Board of Canada, vol. 19, March 1962, pp. 321-326, printed. Fisheries Research Board of Canada, Biological Station, London, Ontario, Canada.

DOMINICAN REPUBLIC:

Comercio Exterior de la Republica Dominicana, vol. 9, nos. 10-12, October-December and Annual Summa-

ry, 1961, 262 pp., illus., printed in Spanish. Direccion General de Estadistica y Censos, Santo Domingo, Dominican Republic, 1962. A considerable amount of data on imports and exports of fishery products is included.

EELS:

Studies on Fishes of the Family Ophidiidae. IV--Two New Dwarf Cusk-Eels (Genus OPHIDION) from the Tropical Western Atlantic, by C. Richard Robins and James E. Böhlke, Contribution No. 240, 9 pp., illus., printed. (Reprinted from Notulae Naturae, no. 325, 1959.) Marine Laboratory, University of Miami, 1 Rickenbacker Causeway, Miami 49, Fla., 1959.

ETHIOPIA:

Marine Fisheries in the Area of Massawa, 1954 Eth. Cal., in Figures, Fisheries Information Leaflet No. 2, 5 pp., processed. Fisheries Division, Department of Marine, Ministry of National Defense, Imperial Ethiopian Government, Massawa, Ethiopia, October 25, 1962. Covers the fishing activities along the continental coast from Ras Kassar in the North (Sudan Border) to Thio in the South, including the inshore waters, outlying islands, and the offshore fishing grounds. Presents statistical tables giving data on fishing craft, persons employed in the fisheries, fishery products landings, volume and value of exports, sales of fresh fish in Ethiopia, landings of fresh fish by fishing method, and other related data. Most data are for July 1, 1961-August 31, 1962 (1953-1954 Ethiopian Calendar).

FISH BEHAVIOR:

The Leaping Behaviour of Salmon and Trout at Falls and Obstructions, by T. A. Stuart, Freshwater and Salmon Fisheries Research 28, 46 pp., illus., printed, \$4. British Information Services, 45 Rockefeller Plaza, New York 20, N. Y., 1962. Laboratory and field observations and experiments conducted during this study showed that the behavior of migrating salmonids, both adult and juvenile, when faced with a barrier or obstruction, can be correlated directly with the hydraulic conditions in the river channel. The problem of the passage of migratory salmonids over artificial obstructions is discussed and experiments are described which suggest that the provision of the normal contours of a natural river channel bed would facilitate the passage of both upstream and downstream migrants by reproducing hydraulic phenomena to which they are adapted.

FISH COOKERY:

Northwest Seafood Favorites, by Inez M. Eckblad, Extension Circular 329, 10 pp., processed. Extension Service, Institute of Agricultural Sciences, Washington State University, Pullman, Wash., April 1962. Presents recipes and tips for serving Pacific Coast fish and shellfish. Includes directions for preparing salmon baked in the sand, outdoor barbecue for a crowd, fish in foil, barbecued clams or oysters, pan roast oysters, clam chowder, baked fish, and other delicacies.

FISH CULTURE:

Fish Culture in Maine, by Stanley P. Linscott and David O. Locke, 16 pp., illus., printed. Maine Department of Inland Fisheries and Game, Augusta, Me., 1962. Discusses the history of fish culture; sources of fish eggs; egg taking; incubation of fish eggs; foods

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and feeding; sanitation and diseases; and distribution of small fish. Also discusses kinds of fish raised--landlocked salmon, brook trout, lake trout, and brown trout; and warm-water fish stocking.

"Perspectives et Interets de la Rizipisciculture a Madagascar" (Prospects and Interests of the Rice-Fish Culture of Madagascar), by A. Kiener, article, Bulletin de Madagascar, vol. 12, no. 197, October 1962, pp. 883-902, illus., printed in French. M. le Directeur de l'Imprimerie nationale, Tananarive, Madagascar Republic.

FISH MANAGEMENT:

Status of Our Knowledge of Managing Stream Fish in West Virginia, by Elwood Armstrong Seaman, Publication No. 4, 23 pp., printed. Division of Fish Management, Conservation Commission of West Virginia, Charleston, W. Va., 1952.

"The Use of Electricity in Fish Management in Pennsylvania," by Jack G. Miller, article, Pennsylvania Angler, vol. 31, no. 10, October 1962, pp. 4-8, illus., printed, single copy 25 cents. Pennsylvania Fish Commission, South Office Bldg., Harrisburg, Pa. Discusses in some detail the use of both alternating and direct current electricity to stun fish temporarily so that they may be handled by fishery biologists.

FISH MEAL:

Biological Value and Amino Acid Composition of Fish Meals, by S. G. Wiechers and Henriette Laubscher, Progress Report No. 62, 18 pp., printed. Fishing Industry Research Institute, University of Cape Town, Rondebosch, C. P., South Africa Republic.

FISH OIL:

"Toxicity of Fish Oil. X--Toxicity of Rapeseed Oil Polymerized by Heating in Air," by Noboru Matsuo (Seikei University, Tokyo, Japan), article, Chemical Abstracts, vol. 55, February 6, 1961, 2825a, printed. The American Chemical Society, 1155 16th St. NW., Washington, D. C.

FOOD AND AGRICULTURE ORGANIZATION:

Fish in Nutrition, edited by Eirik Heen and Rudolph Dreuzer, 464 pp., illus., printed, \$19. Fishing News (Books) Ltd., Ludgate House, 110 Fleet St., London EC4, England, 1962. The first International Conference on Fish in Nutrition, organized by the Food and Agriculture Organization (United Nations), was held in Washington, D. C., September 19-27, 1961. It was attended by over 300 participants from 34 countries and international organizations. This book embodies the important original review papers contributed by 33 scientists distinguished in their special fields of work, supported by some 35 scientific and technical contributions (given in condensed form) presented by other writers--all with abstracts in French and Spanish. These papers are supplemented by reports of the discussions that ensued following the presentation of the papers at their respective sessions of the conference. The contents of the book are divided into five parts. Part I covers the role of fish in world nutrition and includes articles on the aquatic biomass, the world biomass of marine fishes, importance of fisheries production and utilization, role of fish in human nutrition, and role of fish for animal feeding. Part II discusses chemical components of

fish and their changes under treatment, and is dealt with in three main sections: (1) protein and general composition; (2) lipids and vitamins; and (3) the influence of processing methods. Part III covers the contribution of fish and fishery products to national diets and includes sections on: (1) proteins; (2) lipids; and (3) trace elements and their importance. Part IV discusses fish and fishery products in animal nutrition and includes papers on the nutritional value of fish and fish products for ruminants, for pigs, for poultry, and for fur-bearing animals. Part V covers demand for fish as human food and possibilities for increased consumption with emphasis on the value of fish flour and technical logical developments in connection therewith.

Indo-Pacific Fisheries Council Proceedings, 9th Session, Karachi, Pakistan, 6-23 January, 1961, Section II--Technical Papers; Section III--Symposium, 262 pp., illus., printed, \$1. IPFC Secretariat, FAO Regional Office for Asia and the Far East, Bangkok, Thailand, 1962.

The Food and Agriculture Organization has published reports describing that Agency's activities under the Expanded Technical Assistance Program for developing the fisheries of many countries. These reports have been processed only for limited distribution to governments, libraries, and universities. Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy.

Report to the Government of the West Indies Federation on Fishing Boats, by Kjeld Rasmussen, FAO Report No. 1409, 42 pp., illus., 1961.

Report to the Government of Cyprus on Fishery Development Possibilities, by V. Fodera, FAO Report No. 1436, 86 pp., and map, illus., 1961.

Third Report to the Government of India on the Pearl and Chank Beds in the Gulf of Manaar, by Francesco Baschieri-Salvadori, FAO Report No. 1498, 10 pp., 1962.

Supplement to Report to the Government of India on the Improvement of Fishing Techniques in Inland Reservoirs, by S. B. Gulbadamov, FAO Report No. 1499, 60 pp., illus., 1962.

Report to the Government of Syria on a Fish Culture Project, by Dietmar R. Riedel, FAO Report No. 1502, 41 pp., 1962.

FOREIGN TRADE:

"The Trade Expansion Act of 1962," by Leonard Weiss, article, The Department of State Bulletin, vol. 47, no. 1223, December 3, 1962, pp. 847-851, printed, single copy 25 cents. Bureau of Public Affairs, U. S. Department of State, Washington, D. C. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.)

FRANCE:

Bulletin Officiel d'Information du Conseil Superieur de la Peche, no. 49, July-August-September 1962, 112 pp., illus., printed in French, single copy 1,5 NF (about 30 U. S. cents). Bulletin Officiel d'Information du Conseil Superieur de la Peche, 6, place de la Visitation, Angers, France. Includes, among others,

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these articles: "Problemes poses par la pollution des eaux" (Problems Posed by Water Pollution), by Prat and Vivier; "Traitement de la maladie infectieuse des carpes d'eleveage en etang" (Treatment of the Infectious Disease of Carp Reared in Ponds); by M. A. Wurtz; and "Poissons et crustaceés d'eau douce acclimates en France en eaux libres depuis le debut du Siecle" (Fresh-Water Fish and Crustaceans Introduced into Public Waters of France since the Beginning of the Century), by Paul Vivier,

FREEZE-DRYING:

Convention in Cologne on Dry Freezing: Dry Freezing of Food, by A. S. Kovacs Hamburg, ACSI I-1430-B, ID 2198556, 6 pp., processed. (Translated from the German, Die Ernährungswirtschaft, no. 3, 1962, pp. 107-111.) Office of Technical Services, U.S. Department of Commerce, Washington 25, D. C.

FRESH-WATER FISHERIES:

A Collection of Six Short Articles Specially Written for Freshwater Fishermen, Circular No. 3, 24 pp., printed. Fisheries Research Board of Canada, Biological Station and Technological Unit, London, Ontario, Canada, 1961.

A Collection of Three Articles Specially Written for Freshwater Fishermen, Circular No. 4, 30 pp., printed. Fisheries Research Board of Canada, Biological Station and Technological Unit, London, Ontario, Canada, 1962.

FROZEN FISH:

"Protein Denaturation in Frozen Fish. IV--Opacity Measurements on the Muscle," by R. M. Love (Torry Research Station, Aberdeen, Scotland), and "V--Development of the Cell Fragility Method for Measuring Cold-Storage Changes in the Muscle," by R. M. Love and Eleanor M. Mackay, articles, Journal of the Science of Food and Agriculture, vol. 13, March 1962, pp. 197-212, printed. The Society of Chemical Industry, 14 Belgrave Sq., London SW1, England.

FROZEN FOODS:

"Association of Food and Drug Officials of the United States Model Frozen Food Handling Code," article, Frosted Food Field, vol. 35, no. 4, October 1962, pp. 50-51, 57-59, printed, single copy \$1. Frosted Food Field, Inc., Suite 51, 321 Broadway, New York 7, N.Y. The AFDOU Code has served as the model for frozen food handling legislation in Connecticut, Illinois, and Pennsylvania and is also being used as the basis for legislation being prepared in Maryland. Defining handling practices from plant to retail outlet, the Code will serve increasingly as a reference to both public health officials and the industry itself. The Code, the complete text of which is reproduced in the article, contains definitions of terms, requirements for frozen foods, construction and layout of frozen food plants, and design and construction of frozen food processing equipment. Also included are operating practices for the commercial manufacture of frozen foods, requirements for transportation of frozen products, warehousing requirements, and instructions for handling by retail outlets.

"Distributor Sales to Volume Feeders Rise," article, Frosted Food Field, vol. 35, no. 4, October 1962, pp. 28, 33, printed, single copy \$1. Frosted Food Field,

Inc., Suite 51, 321 Broadway, New York 7, N. Y. Frozen food distributors sold a greater volume of product to volume feeding outlets in 1962 than at any time previously. They expect to sell them even more in the year ahead. Certain categories of frozen foods are growing in institutional sales much more rapidly than others. Sales of fish and shellfish and of frozen vegetables in particular showed more rapid increase than any others. These, as well as other facts emerge from responses of 45 frozen food distributors, chosen at random, to a recent survey. This survey was designed to spot trends in institutional distribution of frozen foods. Frozen fish and shellfish lead by far, with nine of the distributors stating that this product grouping grew more rapidly than any other, and three others stating that it showed the second sharpest growth

"Frozen Food All-Industry Coordinating Committee Voluntary Operating Practices," article, Frosted Food Field, vol. 35, no. 4, October 1962, pp. 60-61, printed, single copy \$1. Frosted Food Field, Inc., Suite 51, 321 Broadway, New York 7, N. Y. These Voluntary Operating Practices, the complete text of which is reproduced in the article, were drawn up and approved by the members of the Frozen Food All-Industry Coordinating Committee. They have been designed to allow the industry to improve its handling practices without governmental intervention. Calling for increasingly stringent temperature goals, the Practices are set up so that each segment of the industry, by refusing to accept shipments above specified temperatures, in effect polices others. The practices were approved and signed by eight national frozen food industry trade groups. Included in this article are requirements of frozen foods, warehouse equipment, warehouse handling practices, and transportation equipment. Also covered are handling practices for over-the-road transportation, handling practices for route delivery, equipment for retail stores, and retail handling practices.

GEAR:

"New Otter Boards 'Akula-2'," by E. Iu. Ianson and S. A. Minovich, article, Rybnoe Khoziaistvo, vol. 36, 1960, pp. 25-33, printed in Russian. Rybnoe Khoziaistvo, VNIRO Glavniproekta, pri Gosplanie SSSR, Moscow, U.S.S.R.

GENERAL:

Shore and Sea Boundaries, by A. L. Shalowitz, Publication 10-1, 444 pp., illus., printed \$3.50. Coast and Geodetic Survey, U. S. Department of Commerce, Washington, D. C., 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) The first of a two-volume documented treatise on the engineering and legal aspects of shore and sea boundaries, with special reference to the use and interpretation of Coast and Geodetic Survey data. Deals with the boundary problems associated with the Supreme Court decisions in the "tidelands" cases, and with the 1958 Geneva Conventions on the Law of the Sea and provides a technical and legal background for the delimitation and demarcation of water boundaries, particularly those determined by tidal definition. Subjects covered include, among others, the inland waters problem, the off-shore islands problem, the tidal boundary problem, Federal-state jurisdiction under the Submerged Lands Acts, the continental shelf doctrine in the international

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law of the sea, and interpretation of the boundary provisions of the United Nations Convention on the Territorial Sea and the Contiguous Zone.

GREAT LAKES:

Exploration of Collateral Data Potentially Applicable to Great Lakes Hydrography and Fisheries, by Charles F. Powers, David L. Jones, and John C. Ayers, 159 pp., illus., printed. Great Lakes Research Institute, University of Michigan, Ann Arbor, Mich., 1958.

GULF OF MEXICO:

"New Records and Notes on Fishes from the North-Central Gulf of Mexico," by C. E. Dawson, article, Copeia, no. 2, July 20, 1962, pp. 442-444, printed, single issue \$2.50. The American Society of Ichthyologists and Herpetologists, 18111 Nordhoff St., Northridge, Calif.

HERRING:

"Volumetric Determination of Oxidative Stability of Salt Herring," by R. Marcuse and N. Knutsen, article, Chemical Abstracts, vol. 54, July 10, 1960, 13483e, printed. The American Chemical Society, 1155 16th St. NW., Washington, D. C.

HONDURAS:

Establishing a Business in Honduras, by William Frohlich and Frederick J. Tower, WTIS Part 1, Economic Report No. 62-73, 16 pp., printed, 15 cents. Bureau of International Programs, U. S. Department of Commerce, Washington 25, D. C., September 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Covers Government policy on investment; repatriation of capital; trade factors in investment; business organization; patents, trademarks, copyrights; regulations affecting employment, and sources of Government revenue.

INDIA:

7th Annual Report of the Gujarat Fisheries Central Co-operative Association Limited, 1961-62, 52 pp., illus., printed. The Gujarat Fisheries Central Co-operative Association Ltd., 'Shivprasad,' 7, Hindu Colony, Opp. Sardar Patel Stadium, Navrangpura, Ahmedabad 9, India. Covers activities of the association, including expansion of fresh fish trade, better prices for fishermen, promotion of ethical trade practices, supplying of gear and equipment to fishermen, administration of Government loans and subsidies, and other related information. It also contains information on the program for 1962-63, and on the financial situation of the Association.

INTERNATIONAL COMMISSIONS:

(North Pacific Fur Seal Commission) Proceedings of the Fifth Annual Meeting, February 7-February 9, 1962, Ottawa, Canada, 36 pp., processed. Secretary, North Pacific Fur Seal Commission, U. S. Fish and Wildlife Service, Washington 25, D. C., September 1962. The North Pacific Fur Seal Commission was established in January 1958, during a meeting held in Washington, D. C. The Commission was organized pursuant to the Interim Convention on Conservation of North Pacific Fur Seals, signed in Washington, D. C., on February 9, 1957, by the Governments of Canada, Japan, the U.S.S.R., and the United States. The Convention came into force on October 14, 1957.

This report contains a summary of the proceedings of the Fifth Annual Meeting, a report of the Standing Scientific Committee, a list of participants attending the meeting, administrative report of the Secretary to the Fifth Meeting, and summaries of fur-seal investigations during 1961 and plans for fur-seal investigations during 1962.

IRELAND:

Programme of Sea Fisheries Development, 11 pp., printed, 1s. 6d. (about 20 U. S. cents). Government Publications Sale Office, G. P. O. Arcade, Dublin 1, Ireland, 1962. Outlines the intensified development program for the Irish sea fisheries in the fields of training of fishermen and skippers, Government assistance in vessel financing and construction, and construction of fishery harbors. Also covers processing of fishery products, marketing of fish, expanded functions of the Irish Sea Fisheries Board, and investigation and research projects.

IRRADIATION:

"Gamma Irradiation Installations and Research into Food Preservation by Gamma Irradiation at the Belgian Centre d'Etude de l'Energie Nucleaire," by M. De Proost (Centre d'Etude de l'Energie Nucleaire-C.E.N.--Mol, Belgium), article, Food Irradiation Quarterly International Newsletter, vol. 2, July-September 1961, pp. A2-A5, printed. Interdepartmental Committee on Radiation Preservation of Food, U. S. Department of Commerce, Washington 25, D. C.

Investigation of the Surface Pasteurization, by Means of Soft X-Rays, of Packed Samples of Fish and Meat Containing Inner Bacteria, by A. Schmidt-Lorenz and A. Berger, AEC Tr-5096, 17 pp., processed. (Translated from the German, International Journal of Applied Radiation and Isotopes, vol. 11, 1961, pp. 161-173.) Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C.

"Studies on the Browning of Irradiated Fish. I--Effect of Presence of Free Sugar on the Browning of Fish Flesh," by K. Yamada and K. Amano, article, Bulletin of the Tokai Regional Fisheries Laboratory, no. 27, 1960, pp. 47-53, printed. Tokai Regional Fisheries Research Laboratory, Tsukishima, Chuo-ku Tokyo, Japan.

ITALY:

"Feudal Fish in Sardinia," article, The Economist, vol. 204, no. 6209, August 25, 1962, pp. 704-705, illus., printed, single copy 1s. 6d. (about 20 U. S. cents). The Economist, 22 Ryder St., St. James's, London SW1, England. Discusses the struggle of the feudal owners and the coastal fishermen for fishing rights in the lagoon at Cabras--a lake divided from the sea by a narrow strip of land cut by canals.

IVORY COAST:

"L'industrie des Peches en Cote d'Ivoire et ses perspectives d'avenir" (The Ivory Coast Fisheries Industry and Its Prospects for the Future), article, Bulletin Mensuel, no. 11, November 1962, pp. 5-11, processed in French. Chambre de Commerce de la Republique de Cote d'Ivoire, Abidjan, Ivory Coast.

KOREA REPUBLIC:

Annual Report for Fishery Products Inspection, 161 pp., illus., printed in Korean with some English transla-

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tions. Central Fisheries Inspection Station, Ministry of Agriculture and Forestry, 103 Wonnam-Dong, Chong-Ro, Seoul, Korea, 1961. Contains a general review of the inspection of fishery products in Korea, the present status and results of fishery inspection, and related subjects.

MARKETING:

"The Marketing of Quick-Frozen Fish," by A. Kiener, article, *Revue Generale du Froid*, vol. 38, January 1961, pp. 37-41, printed in French, Association Nationale des Ingenieurs et Techniciens du Froid et des Industries Connexes, 129 Boulevard St. Germain, Paris VI, France.

MISSISSIPPI:

The Status and Future of the Mississippi Marine Fishery Industry (Special Committee on Economic Blueprint, Mississippi Economic Council), by G. Gunter, W. J. Demoran and H. Hague, 18 pp., processed, Gulf Coast Research Laboratory, Ocean Springs, Miss., 1962.

NETHERLANDS:

Jaarcijfers over de Visserij Gedurende het Jaar 1961 (Annual Fisheries Statistics, 1961), 167 pp., illus., printed in Dutch with summaries in English, and statistical tables in both Dutch and English. Directie van de Visserijen, 's-Gravenhage, Netherlands, May 1962. Presents information on sea, inshore, and river and inland fisheries; government regulations pertaining to the fisheries; whaling; export of salted and smoked herring; fisheries research; and fishing vessels. Contains statistical tables giving data on number and tonnage of vessels, quantity and value of marine fish and shellfish landings, salted herring exports, and other related information.

NETS:

"Colour--Fishability. IV.," by G. Molin, article, *Ostkusten*, vol. 33, 1961, pp. 21-25, printed in Swedish. *Ostkusten*, Svenska Ostkustfiskarens, Centralforbund, Hudiksvall, Sweden.

Fixed and Drift Nets, by F. Baranov, 33 pp., printed. (Translated from the Russian, Theory and Calculation of Fishing Gear, Chap. 8, pp. 220-255.) Fisheries Laboratory, Ministry of Agriculture, Fisheries and Food, Lowestoft, Suffolk, England, 1962.

NORTHERN RHODESIA:

Game and Fisheries Annual Report for the Year 1961, 34 pp., illus., printed, 2s. 6d. (about 21 U. S. cents). The Government Printer, Lusaka, Northern Rhodesia, 1962. The section on fisheries discusses fisheries research, work in fisheries development, progress in fresh-water fisheries in the Northern and Southern areas, accomplishments in fish farming, fishery investigations, and extension work. Also included is a report by the Chief Fisheries Research Officer covering activities of the organization, and the research program.

NORWAY:

Statistisk Arbok for Norge, 1962 (Statistical Yearbook of Norway, 1962), *Norges Offisielle Statistikk* XII 87, 367 pp., printed in Norwegian and English. Statistisk Sentralbyra, Oslo, Norway, 1962. Includes, among others, a chapter on fishing, sealing, and whaling.

It presents statistical tables giving data on fishermen and fishing craft, by counties; vessels by length, type, and counties; fishing gear, by type and material; quantity and value of the fisheries; quantity and value of principal species; production of principal fishery products; landings of seals; landings of whales; and other related data. Most of the latest data are for 1960 with some for 1961.

OCEANOGRAPHY:

Conference on Oceanographic Instruments and Other Articles, by N. N. Sysoev, Trans-124, 69 pp., illus., printed. (Translated from the Russian, *Biulleten' Okeanograficheskoi Komissii pri Prezidiume Akademii Nauk SSSR*, no 4, 1960, 68 pp.) U. S. Navy Hydrographic Office, Washington, D. C., 1962.

National Oceanographic Program, Fiscal Year 1963, ICO Pamphlet No. 3, 32 pp., illus., processed, limited distribution. Interagency Committee on Oceanography, Rm. 1714, Bldg. T-3, 17th St. and Constitution Ave. NW., Washington, D. C., April 1962. Preparation of the annual National Oceanographic Program is the responsibility of the Interagency Committee on Oceanography of the Federal Council for Science and Technology, and the report is issued each spring. In preparing this plan the Committee is charged with coordinating and stimulating work in the marine sciences by all interested Federal agencies in order to meet the national goals set by the President. The Fiscal Year 1963 program represents not only a consolidation of mission-oriented agency plans, but also a cooperative blending of independent efforts toward the achievement of common goals. The program represents, within restrictions of time, money, and manpower, a plan for maximum exploitation of the sea in man's interest. The present report contains a summary of Fiscal Year 1962 program activities, outlines the National Oceanographic Program for Fiscal Year 1963, and presents budget summaries. Also included is a report on the International Indian Ocean Expedition, in which the United States participates.

Proceedings Government-Industry Oceanographic Instrumentation Symposium, 505 pp., illus., printed, \$5. Miller-Columbian Reporting Service, 931 G St. NW., Washington 1, D. C. The Government-Industry Oceanographic Instrumentation Symposium, held at Washington, D. C., August 16-17, 1961, was sponsored by the Interagency Committee on Oceanography of the Federal Council for Science and Technology. The proceedings include the 25 papers presented by administrators and scientists, answers by panel members to questions received from the floor, lists of the scientific and industrial laboratories concerned with oceanographic research and development, lists of instrumentation developments now required for oceanographic survey and research, and other miscellaneous information. According to the report, "A major requirement for the necessary growth in oceanography is the availability of reliable, precise, and easily-used instruments to record the parameters of the oceans. A great movement is now under way to introduce new devices and modern techniques into this field. The entire ocean floor, three-quarters of the earth's surface, must be mapped in topographic and geological detail. The conditions affecting the transfer of sound must be known in general principle and in specific local detail. The earth's heat budget and energy transfers from the atmosphere to the water

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must also be defined. The range of the animals and plants in the sea and the extent and nature of the environment affecting the individual species must be understood if they are to be harvested efficiently, and if the farming of the sea is to become an accomplished fact. Rock specimens, cores, deep drilling, and the strata of the ocean bottom must be plotted if we are to use the sea's mineral resources. Many of the instruments to do these tasks have been invented; many have not yet been conceived; some are still in the predevelopment stage and much refinement needs to be done to make them generally applicable. The instrument needs for the rapidly expanding National Oceanographic Program were comprehensively outlined in the two-day Symposium. Industry was invited to assume an ever-increasing responsibility in this field."

OYSTERS:

Oyster Mortality Studies in Virginia. III--Epizootiology of a Disease Caused by HAPLOSPORIDIUM COSTALE, Wood and Andrews, by Jay D. Andrews, John L. Wood, and H. Dickson Hoese, Contribution No. 115, 17 pp., illus., printed. (Reprinted from Journal of Insect Pathology, vol. 4, no. 3, September 1962, pp. 327-343.) Virginia Institute of Marine Science, Gloucester Point, Va.

"Oysters--a Delicacy from the Cradle of the Sea," by Harold F. Udell, article, The Conservationist, October-November 1962, pp. 9-11, illus., printed, single copy 50 cents. The Conservationist, Rm. 335, State Campus, Albany, N. Y. Covers the use of oysters by the ancient Romans, the history of the New York oyster fishery, anatomy and reproduction, growth and development of young oysters, and their feeding habits.

"Studies on the Application of Dehydrogenating Reaction to Evaluate the Effects of Industrial Wastes on Oysters," by Masaru Fujiya, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 26, October 1960, pp. 974-980, printed. Japanese Society of Scientific Fisheries, 6-chome, Shiba-Kaigandori, Minato-Ku, Tokyo, Japan.

PERU:

"El Paiche"; Aspectos de su Historia Natural Ecología y Aprovechamiento (Aspects of Its Natural History, Ecology, and Development), by Jorge Sanchez Romero, 48 pp., illus., printed in Spanish. Servicio de Pesquería, Ministerio de Agricultura, Lima, Peru, 1961.

La Pesca en 1961 (The Fishery in 1961), by Javier Iparraguirre Cortez, Serie de Divulgación Científica 18, 44 pp., illus., printed in Spanish. Departamento de Economía Pesquera, Ministerio de Agricultura, Lima, Peru.

PLANKTON:

Gear Data Report from Atlantic Plankton Cruises for the R/V "Pathfinder," December 1959-December 1960, by J. J. Norcross, W. H. Massmann, and E. B. Joseph. Special Scientific Report No. 19, 1 vol., printed. Virginia Fisheries Laboratory, Gloucester Point, Va.

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"Biochemical Studies on Paralytic Shellfish Poisons," by Edward J. Schantz (U. S. Army Chemical Corps, Fort Detrick, Md.), article, Chemical Abstracts, vol.

55, September 4, 1961, 17917i, printed. The American Chemical Society, 1155 16th St. NW., Washington, D. C.

POLLUTION:

Pollution-Caused Fish Kills, January-June, 1962, 4 pp. processed. Basic Data Branch, Division of Water Supply and Pollution Control, Public Health Service, U. S. Department of Health, Education, and Welfare, Washington 25, D. C., September 1962.

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Estatística Industrial 1961 (Industrial Statistics 1961), 329 pp., printed in Portuguese and French. Instituto Nacional de Estatística, Lisbon, Portugal, October 1962. Includes a section of statistical tables on various aspects of the Portuguese fisheries.

Madreporaires (White Coral), by Lucia Rossi, 13 pp., illus., printed in Portuguese. (Translated from French, Resultats Scientifiques de la Campagne du N. R. P. "Faial" dans les Eaux Cotieres du Portugal, no. 3, 1957.) Gabinete de Estudos das Pescas, Lisbon, Portugal, 1960.

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"Methods for Determining Freshness of Fish," by Yu. A. Puidak, article, Proceedings of the Third Scientific Conference on Infectious and Invasive Diseases of Farm Animals (5-7 March 1957), OTS 61-31213, pp. 42-44, processed, 75 cents. (Translated from the Russian, Materialy 3-i Nauchnoi konferentsii po infektsionnym i invazionnym zabolevaniyam sel'sko-khozyaistvennykh zhivotnykh, Moscow, 1957.) Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C., 1962.

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Alaska Salmon Management, by William F. Royce, 4 pp., illus., printed. (Reprinted from Western Fisheries, July 1961.) Western Fisheries, Roy Wrigley Corporation, Publications Ltd., 1104 Hornby St., Vancouver, B. C., Canada.

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Salmon Migrations in Southeastern Alaska, by Wallace H. Noerenberg, Contribution No. 14, 6 pp., illus., printed, School of Fisheries, University of Washington, Seattle, Wash., 1958.

SANITATION:

Sanitary Regulations for Fish and Fish Products, OECD Documentation in Food and Agriculture No. 51, 186 pp., printed, \$1.50. O.E.C.D. Regional Office, Suite 1223, 1346 Connecticut Ave. NW., Washington 6, D. C., 1961. A detailed study of the regulations used by OECD member governments to exercise control over health and sanitary factors in the production of fishery

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products. The OECD instituted the study by investigating the sanitary regulations for fishery products in force in the United States, Canada, and the 18 European nations in the Organization for Economic Cooperation and Development. In 1960, a special consultant was hired to conduct the study. In December 1961, experts from the member countries held a meeting to examine the consultant's draft report; to analyze the scientific, technical, and economic factors which have been responsible for the establishment of the sanitary regulations now in force in member countries; and to determine the practical measures to be taken to establish uniform standards of quality that would be accepted by them. These data presented at the meeting, including the consultant's report and the conclusions and recommendations of the expert, are included in the report.

SARDINES:

The Pilchard of South West Africa (SARDINOPS OCELLATA), Age Composition of SARDINOPS OCELLATA in the Commercial Catches of 1958 and 1959 with Reference to a Change in Rate of Growth, by O. Nawratil, Investigational Report No. 6, 31 pp., illus., printed. Secretary for South West Africa, Windhoek, South West Africa, 1962. This is a further paper in a series dealing with the general biology of the South-West African pilchard, *Sardinops ocellata*, and is a study of the age composition of fish in commercial catches made off Walvis Bay during the period 1958 and 1959. The slower rate of growth of fish of certain year classes caught in 1958 and 1959 received special attention. Samples of 6,950 and 6,550 fish were taken in 1958 and 1959, respectively, and age-determinations were done on key samples of 1,074 fish in 1958 and on 870 fish in 1959.

Prospectus--World Distribution of Sardines, World Scientific Meeting on the Biology of Sardines, Rome, September 21-28, 1959, 13 pp., processed. Food and Agriculture Organization of the United Nations, Rome, Italy.

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SEA MAMMALS:

The Netting of Sea Mammals. A Report on the Belcher Island Expedition, 1960, by I. A. McLaren and A. W. Mansfield, Circular No. 6, 13 pp., printed. Fisheries Research Board of Canada, Arctic Unit, Montreal, Canada, 1960.

SEA STAR:

A Note on the Feeding Habits of the West Indian Sea Star ORESTER RETICULATUS (Linnaeus), by Lowell P. Thomas, Contribution No. 277, 2 pp., printed. (Reprint from Quarterly Journal of the Florida Academy of Science, vol. 23, no. 2, 1960, pp. 167-168.) Quarterly Journal of the Florida Academy of Sciences, University of Florida, Gainesville, Fla.

SHRIMP:

"Estimating a Population of Shrimp by the Use of Catch per Effort and Tagging Data," by E. S. Iversen,

article, Bulletin of Marine Science of the Gulf and Caribbean, vol. 12, no. 3, 1962, pp. 350-398, illus., printed, single copy \$2. Institute of Marine Science, University of Miami, 1 Rickenbacker Causeway, Virginia Key, Miami 49, Fla.

SIERRA LEONE:

Basic Data on the Economy of Sierra Leone, by James D. Bartlett, WTIS Part I, Economic Report No. 62-80, 12 pp., illus., printed, 15 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., November 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Covers general information, structure of the economy, agriculture, forestry, mining, industry, and power. Also discusses transportation, communications, finance, foreign trade, the program for economic development, marketing, and Government representation. A section of fishing covers attempts of the Government to develop inshore fishing, the consumption of fishery products, and possibilities of developing deep-sea fishing. Included are statistical tables showing quantity and value of Sierra Leone's imports and exports.

SMALL BUSINESS MANAGEMENT:

Color Can Stimulate Sales, by Ernest Dichter, Small Marketers Aid No. 85, 4 pp., processed. Small Business Administration, Washington 25, D. C. Color is a tool which small businessmen can use to increase sales to customers who look for taste and imagination when buying. The leaflet points out that people are unconsciously influenced by color. They are attracted by certain colors and repelled by others. The leaflet shows example of how various marketers use color in their selling. Some use color in sales tickets and wrappings, others in the store itself, and still others inject color into their direct mail advertising.

Export Trade and the Small Manufacturer, by Joseph P. McKenna and Stanley E. Boyle, Management Research Summary, 4 pp., processed. Small Business Administration, Washington 25, D. C., August 1962. Participation in export trade appears to depend primarily on the products and not on the size of the firm, according to the report. It was found that the number of firms engaged in export trade ranged from 4 percent of the smallest firms to 17 percent of those with more than 100 employees. The outstanding problem for most of the firms was lack of information about foreign markets, export procedures, and other topics.

Federal Handbook for Small Business--A Survey of Small Business Programs in the Federal Government Agencies, 108 pp., illus., processed. Small Business Administration, Washington 25, D. C., 1962. A handbook for small businessmen, comprising a survey of small business programs in the Federal Government Agencies. The publication of the handbook was sponsored jointly by the Senate Small Business Committee, the House Small Business Committee, the White House Committee on Small Business, and the Small Business Administration. Its purpose is to provide in one comprehensive volume information on all the Federal programs of interest to small business. Each agency of the Federal Government (including the Bureau of Commercial Fisheries) which has some program beneficial to small busi-

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ness firms has participated in the preparation of the data for the handbook.

Pricing Decisions in Small Business, by W. Warren Haynes, Management Research Summary, 4 pp., processed. Small Business Administration, Washington 25, D. C., August 1962. Points out that it is more important to develop sound reasoning about prices than to adopt specific rules, because reasoning adjusts more readily to differing or changing circumstances. A reasoned approach to pricing involves a comparison of the effects of a price decision on total revenue, or sales receipts, and on total costs.

SOUTH AFRICA REPUBLIC:

Department of Nature Conservation, Report No. 18, 1961, 114 pp., illus., printed. Department of Nature Conservation, Provincial Administration of the Cape of Good Hope, Cape Town, Republic of South Africa. This report covers the activities of the Department of Nature Conservation for 1961. It includes, among others, a section on the Division of Inland Fisheries which discusses the two Government hatcheries, stocking of public waters, tidal waters of rivers, production of carp, comparison of the growth rate of four species of fish, a simple and efficient air compressor for aquarium tanks, and the control of undesirable aquatic plants.

SPAIN:

"La exportacion espanola de productos pesqueros. I--Consumo Interior y Comercio Exterior" (Spanish Export of Fisheries Products. I--Domestic Consumption and Foreign Trade), by V. Paz-Andrade, article, Industrias Pesqueras, vol. 36, no. 851, October 1, 1961, pp. 336-337, printed in Spanish, single copy 10 ptas. (about 17 U. S. cents). Industrias Pesqueras, Policarpo Sanz, 21-2^o, Vigo, Spain.

"A producao pesqueira espanhola e a exportacao de conservas de peixe em 1961" (The Spanish Fishery Production and the Export of Canned Fish in 1961), article, Conservas de Peixe, vol. 17, no. 199, October 1962, pp. 20-22, printed in Portuguese. Conservas de Peixe, 68 Reguairao dos Anjos, Lisbon, Portugal.

SPEARFISH:

Description and Relationships of the Longbill Spearfish, TETRAPTURUS BELONE, Based on Western North Atlantic Specimens, by C. Richard Robins and Donald P. De Sylva, Contribution No. 287, 31 pp., illus., printed. (Reprinted from Bulletin of Marine Science of the Gulf and Caribbean, vol. 10, no. 4, December 1960, pp. 383-413.) Marine Laboratory, University of Miami, 1 Rickenbacker Causeway, Miami 49, Fla.

SPINY LOBSTERS:

The Western Australian Crayfishery, 1944-1961, by Keith Sheard, 107 pp., illus., printed. Keith Sheard, 19 Webster St., Nedlands, Western Australia, 1962. Discusses in detail the development of the spiny lobster (Panulirus longipes) fishery, 1944-1961; open seasons in various areas and condition of the fishery, by months; State and Commonwealth regulations; spiny lobster behavior and fishing practice; the commercial fishery in various areas, 1944-1961; the export catch; growth and age-grouping; and fishery management. Accompanying tables and figures present data

showing the development of the spiny lobster fishery from a commercial catch of 600,000 pounds in 1944/45 to 19,200 pounds in 1959/60. During that period, the number of men engaged in the fishery rose from 42 to 1,173. The value of the catch to the State increased from about £25,000 (US\$70,000) to £4,000,000 (\$11,200,000). Between 90 and 95 percent of the catch is sold as frozen tails on the United States market.

SPORTFISH:

Standard Check List of Common Names for Principal American Sport Fishes, 27 pp., printed, 8 cents. Headquarters, Outdoor Writers Association of America, 10 E. Lafayette St., Baltimore 2, Md., 1962. A list of the common and scientific names of the principal sportfish in the United States. The names of the fish are grouped under fresh-water and salt-water classifications.

SQUID:

"Respiratory and Swimming Movements in the Cephalopod Cranchia scabra," by Malcolm R. Clarke, article, Nature, vol. 196, no. 4852, October 27, 1962, pp. 351-352, illus., printed, 3s. (about 42 U. S. cents). Nature, St. Martin's Press, Inc., 175 Fifth Ave., New York 10, N. Y.

SURGEONFISH:

A New Species of Acanthurus from the Caroline Islands, with Notes on the Systematics of Other Indo-Pacific Surgeonfishes, by John Ernest Randall, Contribution No. 268, 14 pp., illus., printed. (Reprinted from Pacific Science, July 1960, pp. 266-279.) Marine Laboratory, University of Miami, 1 Rickenbacker Causeway, Miami 49, Fla.

SWORDFISH:

"Svardfiskan--havens raskinn (Swordfish--Fighter of the Sea), by Erik Hallstrom, article, Svenska Vastkust Fiskaren, vol. 32, no. 16, August 25, 1962, pp. 360-361, illus., printed in Swedish. Svenska Vastkustfiskarnas Centralforbund, Goteborg, Sweden.

TRADE LISTS:

The Bureau of International Business Operations, U. S. Department of Commerce, has published the following mimeographed trade list. Copies may be obtained by firms in the United States from the Commercial Intelligence Division, Office of Trade Promotion, Bureau of Foreign Commerce, U. S. Department of Commerce, Washington 25, D. C., or from Department of Commerce field offices at \$1 each.

Canneries and Frozen Foods--Producers and Exporters--Hong Kong, 6 pp., September 1962. Lists names and addresses, size of firms, and types of products (including fish and shellfish) handled by each firm.

TRAWL FISHING:

"The Oregon Trawl Fishery for Mink Food--1948-1957," by Walter G. Jones and George Y. Harry, Jr. (Bureau of Commercial Fisheries, Ann Arbor, Michigan), article, Oregon Fish Commission Research Briefs, vol. 8, no. 1, 1961, pp. 14-30, printed. Fish Commission of Oregon, 307 State Street Office Building, 1400 SW. 5th Avenue, Portland 1, Oregon.

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TROPICAL FISH:

Encyclopedia of Tropical Fishes, with Special Emphasis on Techniques of Breeding, by Herbert R. Axelrod and William Vorderwinkler, 763 pp., illus., printed, Sterling Publishing Co., Inc., 122 E. 25th St., New York 16, N. Y., 1961.

TROUT:

Some Morphological Characters of Trout from Lake Mavrovo and the River Radika, by M. Sidorovski, OTS 60-21648, 14 pp., illus., printed, 50 cents. (Translated from the Macedonian, Izdanja (Skopje), vol. 1, no. 5, 1955, pp. 135-147.) Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C., 1962.

TUNA:

"Studies on the Green Meat of Albacore and Yellowfin Tuna," by Yuichi Sasano and others, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 27, June 1961, pp. 586-592, printed. Japanese Society of Scientific Fisheries, 6-chome, Shiba-Kaigandori, Minato-Ku, Tokyo, Japan.

"Tuna Larva," by M. Watson, article, Oceanus, vol. 9, no. 1, September 1962, p. 19, illus., printed. The Woods Hole Oceanographic Institution, Woods Hole, Mass. The larvae of the six species of tuna appear identical but have been distinguished from one another, by previous investigators, on the basis of differences in pigmentation. The present study found pigmentation such a variable characteristic that precise identification was untenable. Thus a new method was developed by using the soft x-ray technique. Medical equipment was used to photograph the vertebral characteristics of four of the five western Atlantic species of larval tuna. Now certain identification became possible for the first time.

TYRRHENIAN SEA:

"Rapport sur les recherches oceanographiques faites en Nord Tyrrhenienne en fevrier 1960" (Report on Oceanographic Research Conducted in the North Tyrrhenian in February 1960), by Jean Le Floch, article, Travaux du Centre de Recherches et d'Etudes

Oceanographiques, vol. 4, no. 4, May 1962, pp. 45-63, illus., printed in French. Centre de Recherches et d'Etudes Oceanographiques, 1, Quai Branley, Prais (7e), France.

UNDER-THE-ICE FISHING:

Mechanization of Under-the-Ice Fishing, by N. S. Fershtut and B. S. Torban, T. 129, 4 pp., processed. (Translated from the Russian, Rybnoe Khoziaistvo, no. 3, 1953, pp. 21-24.) University of Melbourne, Languages Section, Faculty of Science, Parkville, N2, Victoria, Australia.

VIRGINIA:

A Revised Preliminary Check List of the Invertebrate Fauna of Marine and Brackish Waters of Virginia, by Marvin L. Wass, Special Scientific Report No. 24, 1 vol., printed. Virginia Institute of Marine Science, Gloucester Point, Va., 1961.

VITAMIN A:

"Studies on the Economical Manufacture of Vitamin A Concentrate from Fish Liver Oil. XI--Esterification of Vitamin A Concentrate. 3--Divitamin A Esters of Phthalic Acids," by Toyosuke Kinumaki, article. Bulletin of the Japanese Society of Scientific Fisheries, vol. 27, March 1961, pp. 261-281, illus., printed. Japanese Society of Scientific Fisheries, 6-chome, Shiba-Kaigandori, Minato-Ku, Tokyo, Japan.

WHALES:

Whales, by E. J. Slijper, 475 pp., illus., printed, 63s. (about US\$8.85). Hutchinson and Co., Ltd., 11 Stratford Pl., London W1, England, 1962.

YUGOSLAVIA:

Licensing and Exchange Controls--Yugoslavia, WTIS Part 2, Operations Report No. 62-61, 4 pp., printed, 10 cents. Bureau of International Commerce, U. S. Department of Commerce, Washington, D. C., October 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Covers Yugoslav import, export, and foreign exchange controls; United States import and export controls; and other related information.



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