



RECENT FISHERY PUBLICATIONS

FISH AND WILDLIFE SERVICE PUBLICATIONS

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- 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.
 SL - STATISTICAL LISTS OF DEALERS IN AND PRODUCERS OF FISHERY PRODUCTS AND BYPRODUCTS.
 SSR. - FISH. - SPECIAL SCIENTIFIC REPORTS--FISHERIES (LIMITED DISTRIBUTION).

- | Number | Title |
|--------------|--|
| CFS-3229 | - Massachusetts Landings, by Gear and Subarea, 1962 Annual Summary, 14 pp. |
| CFS-3244 | - Maryland Landings, 1962 Annual Summary, 9 pp. |
| CFS-3261 | - Shrimp Landings, January 1963, 7 pp. |
| CFS-3262 | - Shrimp Landings, February 1963, 7 pp. |
| CFS-3263 | - Shrimp Landings, March 1963, 7 pp. |
| CFS-3267 | - Maine Landings, June 1963, 4 pp. |
| CFS-3268 | - Ohio Landings, May 1963, 3 pp. |
| CFS-3269 | - North Carolina Landings, June 1963, 4 pp. |
| CFS-3270 | - South Carolina Landings, June 1963, 3 pp. |
| CFS-3271 | - Georgia Landings, June 1963, 3 pp. |
| CFS-3272 | - Alabama Landings, April 1963, 3 pp. |
| CFS-3273 | - Alabama Landings, May 1963, 3 pp. |
| CFS-3275 | - Michigan Landings, May 1963, 3 pp. |
| CFS-3276 | - New York Landings, June 1963, 4 pp. |
| CFS-3277 | - Wisconsin Landings, June 1963, 2 pp. |
| CFS-3278 | - Louisiana Landings, June 1963, 2 pp. |
| CFS-3282 | - Mississippi Landings, June 1963, 3 pp. |
| CFS-3296 | - Florida Landings, July 1963, 8 pp. |
| SL-19 | - Wholesale Dealers in Fishery Products, Louisiana (Coastal Area), 1962, 6 pp. (Revised). |
| Sep. No. 689 | - Net-Weight Determination for Frozen Glazed Fish. |
| Sep. No. 690 | - MIT-UNICEF Studies on the Production of Fish Protein Concentrate for Human Consumption. |
| Sep. No. 691 | - Can-Draining Device to Aid Sample Inspection. |
| FL-436 | - Commercial Possibilities and Limitations in Frog Raising, 5 pp., illus., January 1963 (Revised). Discusses areas suitable for frog farming, artificial feeding, edible frog species, spawning, |

growth, diseases, protective regulations, methods of capture, and shipping frogs alive.

SSR-Fish. No. 406 - Oceanographic Observations, 1960, East Coast of the United States, by C. Godfrey Day, 64 pp., illus., 1963.

SSR-Fish. No. 424 - Photographic Census of the Steller Sea Lion Herds in Alaska, 1956-58, by Ole A. Mathison and Ron J. Lopp, 24 pp., illus., 1963.

SSR-Fish. No. 452 - A Towed Pump and Shipboard Filtering System for Sampling Small Zooplankters, by Charles P. O'Connell and Roderick J. H. Leong, 22 pp., illus., May 1963.

Organizing and Operating Fishery Cooperatives in the United States, by Leslie D. McMullin, Circular 155, 62 pp., June 1963. Guide or handbook for organizing and operating cooperative organizations of fishermen under the provision of Public Law 464, 73d Congress Authorizing Associations of Producers of Aquatic Products (48 Stat., sec. 1213; 15 U.S.C. secs. 521-522). Presents the aims and principles of fishery cooperatives and outlines procedures for organizing and operating them. Explains the Fishery Cooperative Marketing Act, gives a resume of the legal requirements for organizing cooperatives under the various State laws, procedures for incorporation, tax liability, and other important considerations, such as responsibilities of officers and members. Explains how the expenses of the fisherman can be cut by cooperative buying of supplies in discount quantities, by cooperative operation of facilities for quality control, transportation services, processing, freezing, icing, and packing. Cooperative procurement of fishing vessel equipment and fishing gear is discussed. Explained in detail are cooperative marketing methods and cooperative action in collective bargaining for the sale of the products to fish processors.

Producers' Margins for Food Fish and Shellfish, by David K. Sabock, Circular 156, 35 pp., illus., November 1962. Changes in the supply and demand for particular fresh, canned, frozen, and other types of fish or shellfish products, or changes in processing or marketing costs, affect the producers' share of the consumer's dollar. This report is illustrative of the relative size of the producers' share (that is, producers' margin) for particular fishery products (and also the complementary marketing margins) over a period of years and in a wide variety of cir-

cumstances. It describes the major influences on producers' margins and changes in those margins caused by product differences and the element of time.

Progress in 1961-62, Circular 163, 36 pp., illus., February 1963. This report summarizes scientific accomplishments for the years 1961-62 and future projects of the U. S. Bureau of Commercial Fisheries Biological Laboratory at Honolulu. Gives cryptic descriptions of the Laboratory's research in the general fields of oceanography, tuna subpopulations, skipjack ecology, fishery potentials, experimental gill-net fishing for skipjack, albacore ecology, and tuna behavior.

"Quality Changes in Whiting Stored in Ice as Indicated by Organoleptic and Objective Tests," by Joseph M. Mendelsohn and John A. Peters, 6 pp., illus. (Reprinted from Fishery Industrial Research, vol. 2, no. 1, 1963, pp. 1-6.

Skipjack--A World Resource, Circular 165, 30 pp., illus., printed. Contains information available on skipjack that may be useful in planning future fishing ventures. Reports on skipjack with reference to distribution, behavior, stock composition, and sea and weather conditions in relation to fisheries distribution.

THE FOLLOWING MARKET NEWS LEAFLETS ARE AVAILABLE FROM THE FISHERY MARKET NEWS SERVICE, U. S. BUREAU OF COMMERCIAL FISHERIES, WYATT BLDG., SUITE 611, 777 14TH ST. NW., WASHINGTON, D. C. 20005.

Number	Title
MNL-9	- Fishery Developments in the Philippines, 1962, 6 pp.
MNL-44	- Icelandic Fisheries, 1962, 20 pp.
MNL-83	- Preliminary Report on Japan's Landings of Fish and Aquatic Products, 1961-1962, 11 pp.

THE FOLLOWING ENGLISH TRANSLATIONS OF FOREIGN LANGUAGE ARTICLES ARE AVAILABLE ONLY FROM THE ICHTHYOLOGICAL LABORATORY, BUREAU OF COMMERCIAL FISHERIES, FISH AND WILDLIFE SERVICE, U. S. NATIONAL MUSEUM, WASHINGTON, D. C. 20560.

Deepsea Fishes of the Far-Eastern Seas; The Deep-water Fishes of the Kurile Kamchatka Trench; Fishes from the Greatest Depths, by T. S. Rass, 9 pp., processed. (Translated from the Russian, Priroda, no. 2, 1953, pp. 107-110; Trudy Zoologicheskogo Instituta Akademii Nauk SSSR, vol. 6, 1956, p. 2; Priroda, no. 7, 1958, pp. 107-108.)

A Fish New to the Fauna of the USSR--Erelepis (ERILEPIS ZONIFER--Lock.--Pisces, Anoplomidae) from the Kamchatkan Waters of the Pacific Ocean, by A. P. Andriashev, 9 pp., processed. (Translated from the Russian, Voprosy Ikhtologii, no. 4, 1955, pp. 3-9.)

THE FOLLOWING ENGLISH TRANSLATION OF A FOREIGN LANGUAGE ARTICLE IS AVAILABLE ONLY FROM THE BIOLOGICAL LABORATORY, BUREAU OF COMMERCIAL FISHERIES, U. S. FISH AND WILDLIFE SERVICE, 2725 MONTLAKE BLVD. E., SEATTLE, WASH. 98102.

20 Years of Seasonal Fishing Restrictions on Plaice in the Ostsee, by R. Kandler, Translation Series No. 33, 8 pp., processed, October 15, 1961. (Trans-

lated from the German, Fischereiwelt, vol. 4, no. 3, March 1952, pp. 33-35.)

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

(Baltimore) Monthly Summary--Fishery Products, April and May 1963, 8 pp. each. (Market News Service, U. S. Fish and Wildlife Service, 103 S. Gay St., Baltimore, Md. 21202.) 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 months indicated.

California Fishery Market News Monthly Summary, Part II - Fishing Information, August 1963, 10 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.

(Chicago) Monthly Summary of Chicago's Wholesale Market Fresh and Frozen Fishery Products Receipts, Prices, and Trends, July and August 1963, 13 pp. each. (Market News Service, U. S. Fish and Wildlife Service, U. S. Customs House, 610 S. Canal St., Rm. 1014, Chicago, Ill. 60607.) Receipts at Chicago by species and by states and provinces for fresh- and salt-water fish and shellfish; and weekly wholesale prices for fresh and frozen fishery products; for the months indicated.

Development of Modern Fisheries: Experiences in the United States, by Lionel Walford, 14 pp., processed. (Sandy Hook Marine Laboratory, U. S. Fish and Wildlife Service, P. O. Box 428, Highlands, N. J.) A survey of the United States fishing industry. Discusses, among other subjects, applicability of United States fisheries to newly developing areas; industries on which important fisheries are based; necessity of fishery science; impact of other industries on fishery resources; public fishing for recreation and food; knowledge, the key factor in stimulating the development of fisheries; the menhaden fishery; the Pacific sardine; and miscellaneous shore fishes.

Gulf Fisheries (Selected Areas) - 1962, by E. J. Barry, 41 pp., illus., processed, 1963. (Market News Service, U. S. Fish and Wildlife Service, 600 South St., New Orleans, La. 70130.) Summarizes the commercial landings of fish and shellfish for selected areas of the Gulf States of Florida (West Coast), Alabama, Mississippi, Louisiana, and Texas. The tables show landings for only the specific areas designated and cannot be interpreted as representing the total landings for a given State. Part I reports on trends and conditions in Gulf Coast fisheries during 1962 and gives a resume of the individual fisheries. For the shrimp fishery, a detailed account is presented of total landings by states, extent of coverage of landings, composition of shrimp landings by species and sizes, prices, canning, processed frozen shrimp, imports and exports, cold-storage stocks, and general trends and developments. Discusses production and market conditions for the oyster, blue crab, and finfish fisheries, as well as imports of fresh and frozen fish and shellfish. Part II includes statistical tables showing total fishery products landings; crab

meat production by areas and months; fishery imports through the New Orleans and Morgan City, La., Customs Districts, Port Isabel and Brownsville, Tex., and Mobile, Ala.; and LCL express shipments from New Orleans for 1962 by months and destination. Also includes tables showing monthly range of wholesale prices of fishery products on the New Orleans French Market; Gulf States weekly oyster and shrimp packs, 1961/62 season and packs by season 1957-62; and fishery products market classifications in the Gulf area.

Gulf of Mexico Monthly Landings, Production and Shipments of Fishery Products, July 1963, 8 pp. (Market News Service, U. S. Fish and Wildlife Service, Rm. 609, 600 South St., New Orleans, La. 70130.) Gulf States shrimp, oyster, finfish, and blue crab landings; crab meat production; LCL express shipments from New Orleans; wholesale prices of fish and shellfish on the New Orleans French Market; fishery imports at Port Isabel and Brownsville, Texas, from Mexico; Gulf menhaden landings and production of meal, solubles, and oil; and sponge sales; for the month indicated.

Monthly Summary of Fishery Products Production in Selected Areas of Virginia, North Carolina, and Maryland, July and August 1963, 4 pp. each. (Market News Service, U. S. Fish and Wildlife Service, 18 S. King St., Hampton, Va. 23369.) 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 months indicated.

New England Fisheries--Monthly Summary, July 1963, 21 pp. (Market News Service, U. S. Fish and Wildlife Service, 10 Commonwealth Pier, Boston, Mass. 02210.) 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.

"The Preparation of Alkyl Esters from Highly Unsaturated Triglycerides," by E. J. Gauglitz, Jr. and L. W. Lehman, 2 pp., illus., printed. (Reprinted from The Journal of the American Oil Chemists' Society, vol. XXXX, no. 5, May 1963, pp. 197-198.) (Technological Laboratory, U. S. Bureau of Commercial Fisheries, 2725 Montlake Blvd. East, Seattle, Wash. 98102.)

"Preparation of Highly Purified Fatty Acids Via Liquid-Liquid Partition Chromatography," by O. S. Privett and E. Christense Nickell, 5 pp., illus., printed. (Reprinted from The Journal of the American Oil Chemists' Society, vol. XXXX, no. 5, May 1963, pp. 189-193.) (Technological Laboratory,

U. S. Bureau of Commercial Fisheries, 2725 Montlake Blvd. East, Seattle, Wash. 98102.)

Receipts of Fresh and Frozen Fishery Products at Baltimore's Wholesale Fish Market, 1962, by James A. Coyne, 55 pp., illus., processed, 1963. (Market News Service, U. S. Fish and Wildlife Service, 103 S. Gay St., Baltimore, Md. 21202.) The first part of this report is a summary of receipts of fresh and frozen fishery products on the Baltimore Wholesale Fish Market in 1962, giving comparisons with receipts in 1961. Includes information on crab meat, hard crabs, oysters, soft crabs, striped bass, scup (porgy), shad, hake, butterfish, whiting, white perch, fluke, red hake, spot, and croakers. Also covers Baltimore foreign trade in fishery products and wholesale market classifications. The second part of the report covers statistics on receipts of fresh and frozen fishery products, such as species by states and countries; fish and shellfish totals by months; states and countries by species; domestic and imported totals by months; species by months; and states and countries by months. Also covers 1962 price ranges for fresh fish and shellfish, and conversion factors used to convert shellfish to pounds.

(Seattle) Washington and Alaska Receipts and Landings of Fishery Products for Selected Areas and Fisheries, Monthly Summary, August 1963, 9 pp. (Market News Service, U. S. Fish and Wildlife Service, 706 Federal Office Bldg., 909 First Ave., Seattle, Wash. 98104.) 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 vessels as 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, and imports from other countries through Washington customs district; for the month indicated.

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This is a Pondfish Hatchery, Circular 40, 8 pp., illus., printed, 5 cents, revised, 1963.

Tips on Cooking Fish and Shellfish, 10 pp., illus., printed, 10 cents, 1958. Contains 18 taste-tempting recipes for cooking fish and shellfish. Includes a purchasing guide describing various forms and cuts of fish; and gives a list of suggested foods that can be used for garnishing fish dishes.

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.

ABALONE:

"Chemical Studies on the Meat of Abalone (Haliotis discus Hannai). I," by Eiichi Tanikawa and Jiro

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Yamashita, article, Bulletin of the Faculty of Fisheries, Hokkaido University, vol. 12, November 1961, pp. 210-238, printed. Faculty of Fisheries, Hokkaido University, Kameda-Machi, Hakodate, Japan.

ADDITIVES:

Procedures for the Testing of Intentional Food Additives to Establish Their Safety for Use, Second Report of the Joint FAO/WHO Expert Committee on Food Additives, 22 pp., printed, 30 cents. Columbia University Press, International Documents Service, 2960 Broadway, New York 27, N. Y., 1958.

ALASKA:

1961 Alaska Commercial Fisheries Catch and Production Statistics, by Philip E. Chitwood, Statistical Leaflet No. 3, 19 pp., processed. Alaska Department of Fish and Game, Support Bldg., Juneau, Alaska. Presents statistical tables on licensed operating units, by region; catch summary; catch and value to fishermen, by region and by gear; salmon catch by gear and region, in numbers of fish; and salmon catch by district, in numbers of fish. Also contains tables on comparative catch of salmon and shellfish; average weights of salmon by region; transporting, wholesaling, and manufacturing; summary of products as prepared for market; and production of canned products, in standard cases. Most data are for 1961.

ALGAE:

"Acid Functions of Several Algae Polysaccharides," by R. Springer and L. Middendorf (University of Munich, Munich, Germany), article, Chemical Abstracts, vol. 56, April 2, 1962, 7437g, printed. American Chemical Society, 1155 16th St. NW., Washington 6, D. C.

"Extraction of Carrageenate from Algae," by Gerard Maton and Marcel Maton, article, Chemical Abstracts, vol. 57, July 9, 1962, 1340f, printed. American Chemical Society, 1155 16th St. NW., Washington 6, D. C.

"Hypocholesterolemic Agents Derived from Sterols of Marine Algae," by E. Reiner, J. Topliff, and J. D. Wood, article, Canadian Journal of Biochemistry and Physiology, vol. 40, no. 10, October 1962, pp. 1401-1406, illus., printed, single copy C\$2. Division of Administration and Awards, National Research Council, Ottawa 2, Canada.

ALGINATES:

"Studies on Soluble Alginates. III--On the Metachromasy of the Soluble Alginates--Lithium Alginate, Sodium Alginate, Potassium Alginate, and Ammonium Alginate," by Miki Oguro, article, Bulletin of the Faculty of Fisheries, Hokkaido University, vol. 12, August 1961, pp. 138-150, printed. Faculty of Fisheries, Hokkaido University, Kameda-Machi, Hakodate, Japan.

ANGOLA:

"Pesca em Angola" (Angola's Fisheries), by Jaime Henrique de sa Viana Couceiro, article, Boletim da Pesca, vol. XV, no. 79, June 1963, pp. 21-36, printed in Spanish. Boletim da Pesca, Gabinete de Estudos das Pescas, 644 R. S. Bento, Lisbon, Portugal.

ANTIBIOTICS:

"Antibiotic Activity of Lipids Isolated from Blue-Green Algae," by A. N. Shinkarenko, article, Chemical Abstracts, vol. 55, December 25, 1961, 2778a, printed. The American Chemical Society, 1155 16th St. NW., Washington 6, D. C.

AQUATIC PLANTS:

"Chemische Bekämpfung von Überwasserpflanzen (Gelege) mit 3 Ef und Omnidel Spezial in der Teichwirtschaft" (Chemical Control of Emergent Plants with the Herbicides 3 F and Omnidel Special in Pond Management), by M. Schluter, No. 220, 13 pp., illus., printed in German. (Reprinted from Deutsche Fischerei-Zeitung, vol. 9, no. 11, 1962, pp. 328-340.) Überreicht vom Institut für Fischereiwesen, der Humboldt-Universität zu Berlin, Josef-Nawrocki-Strasse 7, Berlin-Friedrichshagen, Germany.

BACTERIOLOGY:

"A Method for Rapid Detection of Alginic Acid-Digesting Bacteria," by Takashisa Kimura, article, Bulletin of the Faculty of Fisheries, Hokkaido University, vol. 12, May 1961, pp. 41-47, printed. Faculty of Fisheries, Hokkaido University, Kameda-Machi, Hakodate, Japan.

BELGIUM:

Rapport Annuel sur l'Evolution de la Flotte de Peche en 1962 (Annual Report of the Status of the Fishing Fleet in 1962), 43 pp., processed in French. Administration de la Marine et de la Navigation Interieure, Ministere des Communications et des Postes, Telegraphes et Telephones, Brussels, Belgium.

BIOCHEMISTRY:

"The Use of Formaldehyde-Treated Alginic Acid in the Chromatographic Determination of Organic Bases," by J. S. Foster and J. W. Murfin, article, Chemical Abstracts, vol. 55, October 16, 1961, 21479g, printed. The American Chemical Society, 1155 16th St. NW., Washington 6, D. C.

BREAM:

"Bream Tagging Experiments in East Gippsland During April and May 1944," by A. Dunbavin Butcher and John K. Ling, Fisheries Contribution No. 11, 9 pp., illus., printed. (Reprinted from Vict. Nat., vol. 78, January 1962, pp. 256-264.) Victoria Fisheries and Wildlife Department, Melbourne, Australia, 1962.

CALIFORNIA:

California Fish and Game, vol. 49, no. 3, July 1963, 99 pp., illus., printed, single copy 75 cents. Department of Fish and Game, Printing Division, Documents Section, Sacramento 14, Calif. Includes, among others, articles on: "A Doratopsis Larva of the Squid Family Chiroteuthidae in Californian Waters," by S. Stillman Berry; "The Sea Turtle Fishery of Baja California, Mexico," by David K. Caldwell; "Trawling in the Monterey Bay Area, with Special Reference to Catch Composition," by Richard F. G. Heimann; "Effect of Ocean Temperature on the Seaward Movements of Striped Bass, *Roccus saxatilis*, on the Pacific Coast," by John Radovich; "More Giant Squids from California," by Allyn G. Smith; "A Second Large Catch of Pacific Round Herring," by John G. Carlisle, Jr.; and "Greenland Halibut, *Reinhardtius hippoglossoides* (Walbaum) Added to California Fauna," by E. A. Best.

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CANADA:

Journal of the Fisheries Research Board of Canada, vol. 20, no. 3, May 1963, 269 pp., illus., printed, single copy C\$2. Queen's Printer and Controller of Stationery, Ottawa, Canada. Includes, among others, these articles: "Observations on the Oil and Component Fatty Acids of the Oil from Newfoundland Capelin," by R. G. Ackman and others; "Effects of Artificial Propagation and the Weather on Recruitment in the Lake Ontario Whitefish Fishery," by W. J. Christie; "Interspecific Competition and Exploitation," by P. A. Larkin; "Marine Fish Tissue Culture," by P. M. Townsley, H. G. Wight, and M. A. Scott; "Effects of Temperature on Growth of Zooplankton, and the Adaptive Value of Vertical Migration," by Ian A. McLaren; "Amino Acid Composition of Representatives of Eight Bacterial Genera with Reference to Aquatic Productivity," by James E. Stewart and others; "The Spatial Distribution of Fish in Gill Nets," by A. J. Berst and A. M. McCombie; "The In-Vitro Maturation of the Parasitic Nematode, *Terranova decipiens*, from Cod Muscle," by P. M. Townsley and others; "Sympatric Occurrence of Two Species of Humpback Whitefish in Aquanga Lake, Yukon Territory," by C. C. Lindsey; "Observations on Behavior of Juvenile Brown Trout in a Stream Aquarium during Winter and Spring," by G. F. Hartman; "The Uptake and Detoxification of C¹⁴-Labelled DDT in Atlantic Salmon, *Salmo salar*," by F. H. Premdas and J. M. Anderson; "Application of the Paloheimo Linear Equation for Estimating Mortalities to a Seasonal Fishery," by Barry S. Muir and Harold White; and "Migrations of Haddock between the Gulf of St. Lawrence and Offshore Nova Scotian Banks," by F. D. McCracken.

CAVE FISH:

"Comments on the Relationships of the North American Cave Fishes of the Family Amblyopsidae," by Donn Eric Rosen, article, American Museum Novitates, no. 2109, October 29, 1962, pp. 1-35, illus., printed. American Museum of Natural History, Central Park West at 79th St., New York 24, N. Y.

CEPHALOPODS:

South African Cephalopods, by Gilbert L. Voss, Contribution No. 382, 29 pp., illus., printed. (Reprinted from Transactions of the Royal Society of South Africa, vol. 36, part 4, November 1962, pp. 245-272.) Marine Laboratory, University of Miami, 1 Rickenbacker Causeway, Miami 49, Fla.

CHEMICAL CHANGES:

"Studies on the Browning of Fish Flesh, VII--Fluorescence and Flavor of Autoclaved Sugar--Amino Acid System," by Fumio Nagayama, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 28, January 1962, pp. 45-48, printed. Japanese Society of Scientific Fisheries, Shiba-Kaigandori 6, Minato-Ku, Tokyo, Japan.

CLAMS:

"Benthic Survey for Populations of Soft-Shell Clams, *Mya arenaria*, in the Lower Potomac River, Maryland," by H. T. Pfitzenmeyer and K. G. Drobeck, article, Chesapeake Science, vol. 4, no. 2, June 1963, pp. 67-74, illus., printed, single copy 75 cents. Natural Resources Institute, University of Maryland, Chesapeake Biological Laboratory, Solomons, Md. Exploratory sampling of the poten-

tial soft-shelled clam bottoms in the Potomac estuary was conducted to define the range and densities of the subtidal populations of *Mya arenaria*. Bottom samples were taken at depths ranging from 3 to 11 feet with the Maryland hydraulic clam dredge using a $\frac{3}{8}$ -inch mesh conveyor belt. Clam populations ranged from the mouth of the river to Popes Creek, approximately 40 miles upriver. The denser populations of over 300 bushels per acre were found between Sandy Point and Swan Point, or 16 to 33 miles from the river mouth. Clam densities were extremely variable in this area, and were related to changes in bottom type and the instability of shoal water bottoms brought about by wind and wave action.

COD:

"Changes in Amount of Myosin Extractable from Cod-Flesh during Storage at -14°," by J. J. Connell, Torry Memoir No. 131, 11 pp., illus., printed. (Reprinted from Journal of the Science of Food and Agriculture, vol. 13, no. 11, November 1962, pp. 607-617.) Journal of the Science of Food and Agriculture, Society of Chemical Industry, 14 Belgrave Sq., London SW1, England.

"New Factors Involved in the Denaturation of Frozen Cod Muscle Protein," by R. Malcolm Love, article, Journal of Food Science, no. 27, November-December 1962, pp. 544-550, printed. Institute of Food Technologists, 510-522 No. Hickory St., Champaign, Ill.

COD-LIVER OIL:

"The Influence of Various Materials on the Quality of Cod-Liver Oil. II--Varnishes, III--Behavior of Some Commercial Light Metals," by H. J. Papenfuss (VEB, Fischkombinat, Rostock, Germany), article, Chemical Abstracts, vol. 57, September 17, 1962, 7390d and 7390f, respectively, printed. The American Chemical Society, 1155 16th St. NW., Washington 6, D. C.

COMMERCIAL FISHERIES:

Industrial Fishery Technology (A Survey of Methods for Domestic Harvesting, Preservation, and Processing of Fish Used for Food and for Industrial Products), by Maurice E. Stansby, 403 pp., illus., printed, \$12. Reinhold Publishing Corporation, 430 Park Ave., New York 22, N. Y., 1963. General information and specific data about the United States fishing industry are to be found in this book. Written by a group of commercial fishery experts, the subject is divided into three major parts. Fish and fishery methods are discussed in Part I; important fisheries and their products are described in Part II; fishery industrial products are covered in Part III; preservation methods used for fishery products are reviewed in Part IV; and food science applications make up Part V. Some brief consideration is given to world fisheries, but the chief emphasis is upon fisheries of the United States. In his preface, the author himself points out with complete candor that, "As is inevitable with a book written by a large group of specialists, there is some duplication, and certain areas are not covered as thoroughly as are others of perhaps somewhat less importance." Nearly all the chapters have literature cited sections, but the author also includes an extensive general bibliography under nine different headings; general and miscellaneous; composition and nutrition;

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chemistry and microbiology; spoilage, preservation, quality, and specifications; harvesting of fish; handling fresh fish; freezing and cold storage; canning and curing; and industrial products and animal feeds. A good index is also included. Since this is really not a technical book, it should have wide appeal and would be a valuable addition to the library of any fisherman, processor, merchandiser, student, or researcher.

--Joseph Pileggi

CURED FISH:

"The Influence of Drying, Salting and Smoking on the Nutritive Value of Fish," by C. L. Cutting, Torry Memoir No. 128, 19 pp., illus., printed in English with French and Spanish summaries. (Reprinted from Fish in Nutrition, 1962.) Torry Research Station, Aberdeen, Scotland.

DENMARK:

"Dansk fiskehelkonserves--En status pa grundlag af statistiske oplysninger" (Danish Canned Fish; Present Status Based on Statistical Information), by Hakon Nielsen, article, Konserves & Dybfrost, vol. 21, no. 5, 1963, pp. 58-60, printed in Danish. Teknisk Forlag, Vester Farimagsgade 31, Copenhagen V, Denmark.

ENZYMES:

"Distribution of a Lipase Enzyme in Lingcod Fillets and the Effect of Low Temperature Storage on Its Activity," by J. D. Wood, article, Journal of the Fisheries Research Board of Canada, vol. 16, October 1959, pp. 755-757, printed. Queen's Printer and Controller of Stationery, Ottawa, Canada.

EUROPEAN FREE TRADE ASSOCIATION:

Second Annual Report of the European Free Trade Association, for the Period 1st July, 1961 - 30th June, 1962, 39 pp., illus., printed. Secretariat, European Free Trade Association, Geneva, Switzerland, July 1962. (Available from European Free Trade Association, Information Office, 711 14th St. NW., Washington, D. C.) Included is a short section on the Association's action in expanding trade in the areas of agriculture, fish, and other marine products.

Stockholm Convention Examined, 83 pp., printed. Secretariat, European Free Trade Association, Geneva, Switzerland, January 1963. (Available from European Free Trade Association, Information Office, 711 14th St. NW., Washington, D. C.) Chapter 6, which covers agriculture and fish, discusses, among other items, trade in fish and other marine products, and the general procedural provisions of the Convention as they apply to the agricultural and fisheries sectors as a whole.

EXPORTS:

United States Exports of Domestic and Foreign Merchandise (Commodity by Country of Destination), 1962 Annual, Report No. FT 410, processed, Part I, 211 pp., \$1.25; Part II, 353 pp., \$2. Bureau of the Census, U. S. Department of Commerce, Washington, D. C., May 1963. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.) Statistics in Part

I cover United States exports of domestic and foreign merchandise (including fishery products and byproducts) under group 00 through group 5. Part II covers merchandise under groups 6 through 9 (some items of interest to the fishery and allied industries are included). Data are shown by commodity and country of destination.

United States Exports of Domestic and Foreign Merchandise (SITC Group by Country of Destination and Country of Destination by SITC Group), January-December 1962 (Monthly), FT 410 and FT 420 Supplement, 299 pp., processed, \$1.75. Bureau of the Census, U. S. Department of Commerce, Washington, D. C., 1963. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.) Presents monthly data of United States exports during 1962 in two sections: three-digit SITC commodity group by country of origin; and country of origin by three-digit SITC commodity group. Includes data on fresh and preserved fish. Also includes a reference listing showing the Schedule B numbers included within each three-digit SITC group.

FISH BEHAVIOR:

Using the Doppler Effect to Detect Movements of Captive Fish in Behavior Studies, by William C. Cummings, Contribution No. 448, 3 pp., illus., printed. (Reprinted from Transactions of the American Fisheries Society, vol. 92, no. 2, April 1963, pp. 178-190.) Institute of Marine Science, University of Miami, 1 Rickenbacker Causeway, Miami 49, Fla.

FISH COOKERY:

"Instant Catfish Cleaning," by Don Shiner; "Outdoor Cooking with Foil," articles, Pennsylvania Angler, vol. 32, no. 8, August 1963, pp. 12 and 13 respectively, illus., printed, single copy 25 cents. Pennsylvania Fish Commission, South Office Bldg., Harrisburg, Pa. The first article illustrates with photos a simple method of preparing catfish for the pan. The second describes how to construct a cook pot with aluminum foil and presents a recipe for cooking bass or catfish over an outdoor fire.

FISH CULTURE:

"Überlegungen über Neue Wege in der Fischzucht" (Considerations on New Ways in Fish Breeding), by Ulrich Lieder, No. 218, 6 pp., printed in German. (Reprinted from Deutsche Fischerei-Zeitung, vol. 10, no. 3, 1963, pp. 82-87.) Überreicht vom Institut für Fischereiwesen, der Humboldt-Universität zu Berlin, Josef-Nawrocki-Strasse 7, Berlin-Friedrichshagen, Germany.

FISH DETECTION:

"Das Echographen-Forschungsprogramm des Instituts für Fischereiwesen" (The Echo-Sounder Research Program of the Institute of Fisheries), by Ulrich Lieder, no. 217, 3 pp., illus., printed in German. (Reprinted from Deutsche Fischerei-Zeitung, vol. 10, no. 4, 1963, pp. 120-122.) Überreicht vom Institut für Fischereiwesen, der Humboldt-Universität zu Berlin, Josef-Nawrocki-Strasse 7, Berlin-Friedrichshagen, Germany.

FISHING TECHNIQUES:

Fish Capture (Being the Buckland Lectures for 1959), by Ronnie Balls, 148 pp., illus., printed. Edward

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

Arnold (Publishers) Ltd., 41 Maddox St., London W1, England, 1961. Discusses primitive and modern fishing methods, fish finders, behavior of fish, mechanization of gear, manpower, food chains, conservation, and related subjects. The author points out that the logical approach to trawling is to put power first, and then to consider how to work the gear with as few men as possible. He cites American shrimp trawlers as examples of an efficient approach. In the shrimp fishery it is not uncommon for vessels of 65 feet, manned by only 2 or 3 men, to make very long voyages. These vessels are sufficiently powered to enable the taking of the shrimp by means of two 45-foot trawls, one towed from each side by outriggers, rather than confining the tow to a single trawl.

FISH SKIN:

"A New Fluorescent Hydrocarbon in the Skin of Fish," by Shuishi Hirao and Ryo Kikuchi, article, Chemical Abstracts, vol. 55, September 4, 1961, 17931g, printed. The American Chemical Society, 1155 16th St. NW., Washington 6, D. C.

FISH SOUNDS:

Significance of Certain Fish Sounds, USSR, by V. R. Protasov and Ye V. Romanenko, OTS 63-21396, 15 pp., printed, 50 cents. Office of Technical Services, Department of Commerce, Washington, D. C. 20230, March 1963.

FOOD ADDITIVES:

What Consumers Should Know About Food Additives, Food and Drug Administration Publication No. 10, 14 pp., illus., printed, 15 cents. Food and Drug Administration, U. S. Department of Health, Education, and Welfare, Washington, D. C., 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.) Included are sections on the history of the use of chemical preservatives; the contributions of food chemistry to better living; public health safeguards; the latest legislation to regulate the use of food additives; how the law works; and Food and Drug Administration testing of foods. Details are presented on the various types of additives such as nutrient supplements, nonnutritive sweeteners, preservatives, emulsifiers, and others; special classes of additives such as pesticides and coal-tar colors; drugs and additives in livestock feeds; and requirements of label declaration when additives are used.

FOOD POISONING:

Clinical-Epidemiological Characteristic of an Outbreak of Botulism, Connected with the Use of Canned Flounder for Food, by V. M. Bauman, V. N. Yagodin, and Yu. V. Filippovich, Trans. V-1795, 12 pp., processed. (Translated from the Russian, Zhurnal Mikrobiologii, Epidemiologii i Immunologii, vol. 33, no. 7, July 1962, pp. 92-95.) National Agricultural Library, U. S. Department of Agriculture, Washington, D. C. 20250.

FOREIGN INVESTMENT:

Aids to Business (Overseas Investment), 46 pp., printed, 25 cents. Agency for International Development, U. S. Department of State, Washington, D. C., 1963. (For sale by Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.) Outlines the congressional tools

which now enable the Agency for International Development (AID) to enlist American business collaboration in our foreign aid program. Each chapter describes a separate program--who is eligible to participate, the terms and conditions, and how to apply to AID. It also includes a discussion of some of the programs administered by other United States and international financial institutions.

FOREIGN TRADE:

What You Should Know About Exporting, 38 pp., illus., printed, 25 cents. U. S. Department of Commerce, Washington, D. C., 1963. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.) A basic reference for the businessman interested in opening profitable new overseas markets for his products. Discusses the many facilities and resources on which he can draw to enter international trade. Considers such aspects of the subject as pinpointing your markets, sizing up your chances, channels for trading, picking your overseas partners, handling the order, promoting export sales, and other points of interest.

FRANCE:

La Peche Maritime et le Pecheur en Mer (The Marine Fishery and the Fisherman at Sea), by Auguste Dupouy, 228 pp., printed in French. Librairie Armand Colin, 103, Boulevard Saint-Michel, Paris, France, 1955.

FREEZE-DRYING:

"Forecast on a Food-Processing Method--Freeze-Drying," by Kermit Bird, article, Agricultural Situation, vol. 47, no. 7, July 1963, pp. 6, 9, printed, single copy 5 cents. Statistical Reporting Service, U. S. Department of Agriculture, Washington, D. C. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.)

"Preservation by Freeze-Drying and the Stability of Virulence of *Salmonella typhimurium*," by Ellen M. Simon, K. L. Stahl, and J. B. Wilson, article, Applied Microbiology, vol. 11, no. 4, July 1963, pp. 371-376, illus., printed, single copy \$3. The Williams & Wilkins Co., 428 E. Preston St., Baltimore 2, Md.

FRESH-WATER BIOLOGY:

A Guide to the Study of Fresh-Water Biology, by James G. Needham and Paul R. Needham, 117 pp., illus., printed, \$2.25. Holden-Day, Inc., 728 Montgomery St., San Francisco 11, Calif.

FROZEN FISH:

"Cell Damage from Excess Cutting of Fish Adversely Affects Frozen Seafood Quality," by Frederick J. King, article, Quick Frozen Foods, vol. 25, December 1962, pp. 115-116, printed. Quick Frozen Foods, E. W. Williams Publications, Inc., 82 Wall St., New York 5, N. Y.

"Identifying Quality Changes in Frozen Fish," by A. Banks, Torry Memoir No. 122, 10 pp., printed in English with French summary. (Reprinted from Supplement au Bulletin de l'Institut International du Froid, 1962.) Torry Research Station, Aberdeen, Scotland.

GEAR:

Indian Fisheries Bulletin, vol. IX, no. 4, October 1962, 61 pp., illus., printed, single copy Re. 1.00 (about 21

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

U. S. cents). Department of Food, Ministry of Food and Agriculture, New Delhi, India. Contains papers presented and recommendations made at the All India Conference of Craft and Gear Technologists, Veraval, Gujarat State, November 11-13, 1961. Includes papers on: "The Design and Operation of Bottom Set Gill Nets for Lobster," by A. V. V. Satyanarayana and K. A. Sadanandan; "The Designs of Otter Trawls for Shrimp," by A. V. V. Satyanarayana and R. S. Nair; "Trawling Experiments in Punaikayal Madai, Gulf of Mannar," by S. Thyagarajan and S. Mahadevan; "Certain Aspects about Improved Gear in Prawn Fishing," by G. K. Kuriyan, S. D. Deshpande, and N. A. George; and "A Note on Record Catch in a 40 Ft. Trawl Net at Mangalore," by B. Santharam Rai. Also includes a section of papers on fishing craft and gear.

GERMAN FEDERAL REPUBLIC:

"Biologisch-Statistische Untersuchungen uber die Deutsche Hochseefischerei. IV--Die Entwicklung der Hochseefischerei in Fangtechnischer, Raumlischer und Biologischer Hinsicht. 6--Die Fernfischerei" (Biological-Statistical Research on German Deep Sea Fishing. IV--Development of Deep Sea Fishing with Regard to the Technique, the Area, and Biological Considerations of the Catch. 6--Distant-Water Fishing), by Johannes Lundbeck, article, Berichte der Deutschen Wissenschaftlichen Kommission fur Meeresforschung, New Series, vol. XVI, no. 6, 1962, pp. 251-338, illus., printed in German. Nagele u. Obermiller, E. Schweizerbart'sche Verlagsbuchhandlung, Stuttgart, Germany.

Food Law; Food Code; Nutritional Counselling, Translation No. I-1430 A, 8 pp., processed. (Translated from the German, Ernahrungswirtschaft, vol. 9, no. 3, pp. 99-103.) Headquarters, Department of the Army, Office, Assistant Chief of Staff for Intelligence, Washington, D. C. 20310, June 13, 1962.

"60 Jahre Deutsche Wissenschaftliche Kommission fur Meeresforschung" (60 Years Activity of the German Scientific Commission on Sea Research), article, Berichte der Deutschen Wissenschaftlichen Kommission fur Meeresforschung, New Series, vol. XVII, no. 1, 1962, pp. 1-44, illus., printed in German. Nagele u. Obermiller, E. Schweizerbart'sche Verlagsbuchhandlung, Stuttgart, Germany.

GLUCOSAMINE:

"Glucosamine Obtained from Crustacean Shells, and its Biological and Therapeutic Importance," by Simion Oeriu and others (Inst. Rech. Alimentaries, Bucharest, Romania), article, Chemical Abstracts, vol. 57, July 23, 1962, 2330f, printed. The American Chemical Society, 1155 16th St. NW., Washington 6, D. C.

"Obtaining Glucosamine from Crustaceans and its Importance in Therapeutics," by S. Oeriu, Maria Agnes Dimitriu, and I. Craescu (Rumanian Academy, Bucharest, Romania), article, Chemical Abstracts, vol. 57, October 29, 1962, II309f, printed. The American Chemical Society, 1155 16th St. NW., Washington 6, D. C.

GREENLAND:

Anordning af 27. Maj 1963 om Afgraensningen af Soterritoriet ved Gronland (Regulation No. 191,

May 27, 1963, effective June 1, 1963, establishing Greenland's outer territorial sea as the area within 3 nautical miles from a baseline drawn between the points listed in section 2), 9 pp., printed in Danish and Greenlandic. Ministry for Greenland, Copenhagen, Denmark, 1963.

Bekendtgorelse om Erhvervsmaessig Fangst, Fiskeri og Jagt i Gronland (Announcement No. 192, Ministry for Greenland, May 27, 1963, effective June 1, 1963, limiting fishing, hunting, and whaling in the waters within 12 nautical miles of the inner baseline), 6 pp., printed in Danish and Greenlandic. Ministry for Greenland, Copenhagen, Denmark, 1963.

Bekendtgorelse om Udenlandske Fartojers Adgang til Fiskeri M. V. in Gronlandske Farvande (Announcement No. 193, Ministry for Greenland, May 27, 1963, effective June 1, 1963, permitting fishing vessels registered in Iceland, Norway, the United Kingdom, West Germany, France, Spain, and Portugal to fish up to 6 nautical miles from the inner baseline until May 31, 1973, and to fish with long lines and hand lines up to 3 nautical miles from the inner baseline until October 31, 1963), 2 pp., printed in Danish and Greenlandic. Ministry for Greenland, Copenhagen, Denmark, 1963.

HAKE:

"Estudio Quimico Comparativo de las Merluzas Africanas, Merluccius merluccius L., y Merluccius senegalensis Cadenat" (Comparative Chemical Studies of African Hakes, Merluccius merluccius L., and Merluccius senegalensis Cadenat), by F. Munoz, article, Investigacion Pesquera, vol. 19, 1961, pp. 37-53, illus., printed in Spanish with English summary. Consejo Superior de Investigaciones Cientificas, Universidad de Barcelona, Barcelona, Spain.

HERRING:

"Sildehalkonserves. I--Ravarens Fremstilling og Moding" (Semi-Preserved Herring Products. I--Manufacture and Ripening of the Raw Material), by E. Christiansen, article, Konserves og Dybfrost, vol. 20, no. 2, 1962, pp. 18-21; "II--Fremstilling af Lage Eller Sauce" (II--Manufacture of Brines for Retail Packaging), vol. 20, no. 3, pp. 31-33; "III--Syrebehandling af Sild og Frysning af Halvkonserves" (III--Acid Curing of Herring and Freezing of Retail Packaged Semi-Preserves), vol. 20, no. 4, pp. 46-48, illus., printed in Danish. Det Tekniske Forlag, 29 Vester Farimagsgade, Copenhagen-V, Denmark.

ICE:

"More Ice Would Mean Better Fish," by I. Tatterson and R. Spencer, Torry Memoir No. 129, 2 pp., illus., printed. (Reprinted from Fish Friers' Review, January 1963.) Department of Scientific and Industrial Research, Humber Laboratory, Hull, England.

ILLINOIS:

"The Fishes of Champaign County, Illinois, as Affected by 60 Years of Stream Changes," by R. Weldon Larimore and Philip W. Smith, article, Illinois Natural History Survey Bulletin, vol. 28, Article 2, March 1963, pp. 298-382, illus., printed. Illinois Department of Registration and Education, Natural History Survey Division, Urbana, Ill.

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

IMPORTS:

United States Imports of Merchandise for Consumption (Commodity by Country of Origin), 1962 Annual, Report FT 110, 250 pp., processed, \$1. Bureau of the Census, U. S. Department of Commerce, Washington, D. C., May 1963. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.) The import statistics include government as well as nongovernmental shipments of merchandise (including fish, shellfish, and fishery byproducts) from foreign countries.

INDIA:

Matsya Vyavasaya (Fish Trade), vol. III, no. 4-5, April-May 1963, 63 pp., illus., printed. The Gujarat Fisheries Central Cooperative Association, Ltd., "Shivprasad" 7, Hindu Colony, Opp. Sardar Patel Stadium, Navrangpura, Ahmedabad 9, India. Includes, among others, articles on: "Performance and Promotion of Fish Export in Gujarat," by N. C. Lakumb; "Planning for Marketing of Prime Fish," by R. K. Mehra; "Progress of the Gujarat Fisheries Central Co-Operative Association Ltd.," "Bombay Duck Fishery of Jaffrabad," by C. R. Easwaran; and "Golden Eggs from Water: Fish Spawn Trade and Co-Operatives."

INLAND FISHERIES:

"Über Spurenelemente in den Binnengewässern und ihre Bedeutung für die Binnenfischerei" (On Trace Elements in Inland Waters and Their Importance in Inland Fisheries), by Ulrich Lieder, no. 216, 4 pp., printed in German. (Reprinted from Deutsche Fischerei-Zeitung, vol. 10, no. 4, 1963, pp. 106-109.) Überreicht vom Institut für Fischereiwesen, der Humboldt-Universität zu Berlin, Josef-Nawrocki-Strasse 7, Berlin-Friedrichshagen, Germany.

IRRADIATION PRESERVATION:

"The Influence of Irradiation Preservation on the Nutritive Value of Fish and Fishery Products," by J. M. Shewan, Torry Memoir No. 127, 13 pp., illus., printed in English with French and Spanish summaries. (Reprinted from Fish in Nutrition, 1962.) Torry Research Station, Aberdeen Scotland.

JACUNDA:

"Notas sobre a Alimentação do Jacunda, *Crenicichla saxatilis* (L., 1758)" (Notes on the Diet of the Jacunda, *Crenicichla saxatilis* - L., 1758), by Rui Simoes de Menezes, Series IC, Publication No. 238, 3 pp., illus., printed in Portuguese with English summary. (Reprinted from Bol. Soc. Cear. Agron., vol. 2, June 1961, pp. 51-53.) Serviço de Piscicultura, Fortaleza, Ceara, Brazil.

JAPAN:

Bulletin of the Hokkaido Regional Fisheries Research Laboratory, no. 26, March 1963, 147 pp., illus., printed in Japanese with English abstracts. Hokkaido Regional Fisheries Research Laboratory, Yoishi, Hokkaido, Japan. Includes, among others, these articles: "A Study on the Method of Prediction of the Hokkaido Spring Herring Resources," by N. Hanamura; "Consideration on the Differences in Body Length, Sex Ratio and Body Weight in the Pink Salmon Catches of Long-Line and Gill-Net of the Japanese Land-Based Fisheries, with Special Reference to Mesh Selectivity," and "A New Quantita-

tive Sampler for Large Crustacean Plankton," by T. Ishida; "Limb Loss and Recovery in the Young King Crab, *Paralithodes camtschatica*," and "Ecology of Shrimps on the Eel-Grass Bed: I--*Spirontocaris propugnatrix*, II--*Leander macrodactylus* and Others, III--Shrimps in Relation to their Environment," by H. Kurata; "Biochemical Studies on Squid: XVIII--Glycogen in Muscle (1)," by K. Kitabayashi and others "XIX--On the Glucosamin Content in the Pen," XX--On the Cloudiness of the Extracts Obtained from Squid Muscle;" "Studies on the Proteins of Fish Skeletal Muscle in Relation to the Prevention of their Denaturation. I--Denaturation of Myosin," by K. Kitabayashi and S. Ishikawa; "The Change of the Lipid System in Fish Meat at Several Treating and Manufacturing Courses," by K. Miwa; and "Changes in Muscle Protein of Alaska Pollack during Storage in Ice," by T. Tokunaga.

JELLYFISH:

"Freshwater Jellyfish," by James Green, article, New Scientist, vol. 19, no. 347, July 11, 1963, pp. 90-91, illus., printed, single copy 1 s. (about 14 U. S. cents). New Scientist, Cromwell House, Fulwood Pl., High Holborn, London WC1, England. Studies of the distribution of freshwater jellyfish have led from a tank in Regents Park, London, to a great lake in East Africa. Present knowledge of the few species known from fresh water suggests that they have descended from their relatives in the sea.

LABOR LEGISLATION:

Equal Pay Act, 1963, P. L. 88-38, 4 pp., processed. Labor Relations and Legal Department, the Chamber of Commerce of the United States, 1615 H St. NW., Washington 6, D. C. A digest and analysis of the Equal Pay Act of 1963. The law prohibits payments to employees within any establishment of wage differentials based on sex by employers subject to the Fair Labor Standards Act where there is equal work on jobs, the performance of which requires equal skill, effort, responsibility, and which is performed under similar working conditions. Wage differentials are specifically recognized where based on a legitimate seniority system, merit system, quantity or quality of production, or any factor other than sex. Investigation and administration of the Act will be under the existing Wage and Hour Division of the Department of Labor.

Highlights of the Equal Pay Act of 1963, 3 pp., processed. Wage and Hour and Public Contracts Divisions, U. S. Department of Labor, Washington 25, D. C., 1963.

LONG ISLAND SOUND:

"The Demersal Fish Population of Long Island Sound," by Sarah W. Richards, article, Bulletin of the Bingham Oceanographic Collection, vol. 18, Article 2, January 1963, pp. 1-101, illus., printed in English with Russian abstracts, \$4. Peabody Museum of Natural History, Yale University, New Haven, Conn.

MACKEREL:

"Studies of Dry-Salting and Sun-Drying of Mackerel (*Rastrelliger kanagurtha*). I--Different Conditions of Drying and Their Effect on the Quality of Dry-Cured Product; II--Effect of Chlortetracycline, Sorbic Acid, Sodium Propionate, Sodium Benzoate, and Sodium Acid Phosphate on the Keeping Quality of Sun-

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Dried Mackerel; III--Effect of Varying Proportions of Salt to Fish on the Quality of Sun-Dried Mackerel; IV--Effect of Incorporation of Different Chemicals in the Curing Salt on the Texture and Cooking Quality of the Product; V--Studies on the Storage Characteristics and Packaging of Sun-Dried Salted Mackerel," by D. P. Sen and others, articles, Chemical Abstracts, vol. 56, January 22, 1962, 1811i, 1812a, 1812b, 1812c, printed. The American Chemical Society, 1155 16th St. NW., Washington 6, D. C.

MARINE BIOLOGY:

International Marine Biology, vol. 1, no. 1, April 1963, 36 pp.; vol. 1, no. 2, August 1963, 34 pp., processed. United Nations Educational, Scientific and Cultural Organization, Place de Fontenoy, Paris-7^e, France. The first two numbers of a quarterly newsletter prepared jointly by the Office of Oceanography of UNESCO and the Biology Branch of the Fisheries Division of FAO. Intended to help marine scientists, administrators, and government officials to be better informed in international, regional, and national activities of international significance in this field. Sections included are editorial notes, organizations, national oceanographic programs, international projects, meetings, training facilities, miscellaneous news items, and activities of the United Nations and other agencies.

MARKETING:

The Handling of Wet Fish during Distribution, Torry Advisory Note No. 3, 6 pp., illus., printed. Torry Research Station, 135 Abbey Rd., Aberdeen, Scotland, 1962.

MARLIN:

"White Marlin, Tetrapturus albidus, in the Middle Atlantic Bight, with Observations on the Hydrography of the Fishing Grounds," by Donald P. de Sylva and William P. Davis, Contribution No. 432, 19 pp., illus., printed. (Reprinted from Copeia, vol. 50, no. 1, March 30, 1963, pp. 81-99.) Institute of Marine Science, University of Miami, 1 Rickenbacker Causeway, Miami 49, Fla.

MOTION PICTURES:

Film Catalog, 29 pp., printed. Division of Information, U. S. Department of the Interior, Washington, D. C. 20240, 1963. The motion pictures listed in this catalog are selected from the film libraries of the various bureaus and offices (including the Fish and Wildlife Service) of the Department of the Interior. They are available, on request, to educational institutions, industrial and agricultural training classes, engineering and professional societies, conservation organizations, civic and business associations, and other responsible public and private groups.

NETHERLANDS:

Tien Jaar Zeevisserij (Ten Years of Marine Fishery), by A. G. U. Hildebrandt, Separate No. 3, 5 pp., printed in Dutch. Landbouw-Economisch Instituut, Conradkade 175, 'S-Gravenhage, Netherlands, May 8, 1963.

NETS:

"A Comparative Account of the Rotting Resistance of Netting Twines of Fibres of Vegetable Origin," by Hideaki Miyamoto, G. K. Kuriyan, and P. J. Cecily,

article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 28, July 1962, pp. 655-663, printed. Japanese Society of Scientific Fisheries, Shiba-Kaigandori 6, Minato-Ku, Tokyo, Japan.

"Latest on Monofilament Netting of Tuna," by Alan Temple, article, Fisheries Newsletter, vol. 22, no. 7, July 1963, pp. 17, 27, illus., printed. Commonwealth Fisheries Office, Department of Primary Industry, Canberra, Australia.

"On the Mechanical Character of the Drag-Net. II," by Tasaé Kawakami and Kei Nakasai, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 28, July 1962, pp. 664-670, printed. Japanese Society of Scientific Fisheries, Shiba-Kaigandori 6, Minato-Ku, Tokyo, Japan.

Mesure de la Trainee de Fils de Peche (Determination of the Drag on Fishing Nets), by A. Fauquet and J. Pauriche, 5 pp., illus., printed in French. Institut de Mecanique de Fluides, 5, Boulevard Paul Painleve, Lille, France, April 28, 1952.

Results of Laboratory and Field Evaluation of Continuous Filament Isotactic Polypropylene Fibre for Salmon Gill Nets, by P. J. G. Carrothers, Circular No. 66, 16 pp., processed. Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada, July 1962.

NORTH ATLANTIC:

"The Soviet Fishery in the ICNAF Area," by Gordon R. Williamson, article, Canadian Fisherman, vol. 50, no. 7, July 1963, pp. 17-22, 36, illus., printed, single copy C\$2. National Business Publications Ltd., Gardenvale, Que., Canada. Describes some of the vessels, mostly stern trawlers, the methods of fishing, and the fishermen of the Soviet fishing fleet operating on the Canadian Atlantic seaboard.

OCEANOGRAPHY:

Computer Programs in Oceanography--Preliminary List, 16 pp., processed. Data Processing Branch, National Oceanographic Data Center, Washington 25, D. C. The rapid growth in the use of electronic computers and other automatic data processing devices has created a wide need for up-to-date information about the types of computer programs in use by various institutions for oceanographic applications. This report is the first of a series planned to disseminate such information and contains a preliminary list of computer programs by institution and a sample of a proposed Program Abstract form. Lists the type of computer and program titles or short descriptions to indicate the type of programs in use at each institution.

Journal du Conseil, vol. XXVIII, no. 1, June 1963, 170 pp., illus., printed in French and English, single copy Kr. 16 (about US\$2.35). Conseil Permanent International pour l'Exploration de la Mer, Charlottenslund Slot, Denmark. (Available from Messrs. Andr. Fred. Host & Son, Bredgade, Copenhagen, Denmark.) Includes, among others, articles on: "A Study of the Vertical Distribution of Larval Haddock," by David Miller, John B. Colton, Jr., and Robert R. Marak; "Marine Fish Culture in Britain. I--Plaice Rearing in Closed Circulation at Lowestoft, 1957-1960," by J. E. Shelbourne, J. D. Riley, and G. T. Thacker;

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"II--A Plaice Rearing Experiment at Port Erin, Isle of Man, during 1960, in Open Sea Water Circulation," by J. E. Shelbourne; "III--Plaice (*Pleuronectes platessa*--L.) Rearing in Closed Circulation at Lowestoft, 1961," by J. D. Riley and G. T. Thacker; "On Selection by the Drifter Fleets in the East Anglian Herring Fishery," by A. C. Burd; "Some Notes on the Preservation of Marine Animals," by James Marr; "The Body/Scale Relationship in Atlantic Salmon (*Salmo salar* L.)," A Preliminary Report," by Arne Lindroth; and "Random Movement and Orientation in Salmon Migration," by Saul B. Saila and Raymond A. Shappy.

"Las Masas de Agua del Oceano" (The Nature of the Ocean's Waters), by Jose Miguel Arango, article, *Iberica*, vol. 41, no. 11, May 1963, pp. 190-194, illus., printed in Spanish. *Iberica*, Palau, 3, Apartado 759, Barcelona-2, Spain.

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National Plan for Ocean Surveys, ICO Pamphlet No. 7, 49 pp., processed. Interagency Committee on Oceanography, Federal Council for Science and Technology, Office of Naval Research, Rm. 1818, 17th St. and Constitution Ave. NW., Washington 25, D. C., May 1963. The primary objective of the Ocean Survey Plan is to provide for the efficient and systematic collection, compilation, and presentation of oceanographic data for use in furthering our understanding of the sea for science, for the national economy, and for defense. Among other agencies participating in the program, the Bureau of Commercial Fisheries is responsible for the management and wise utilization of the commercially valuable living resources of the sea. The collections of physical and chemical data together with the biological data are designed to provide information needed in understanding the relation of the living population to its physical-chemical environment, an important aspect in the prediction of where commercially profitable stocks may be found.

Oceanographic Ship Operating Schedules, Fiscal Year 1964, ICO Pamphlet No. 12, 31 pp., processed. Interagency Committee on Oceanography, Federal Council for Science and Technology, Office of Naval Research, Rm. 1818, 17th St. and Constitution Ave. NW., Washington 25, D. C., May 1963. An annual publication containing the planned schedules, type of work, and general areas of operation for all Government-owned or sponsored oceanographic ships of the United States. Included are vessels of the U. S.

Bureau of Commercial Fisheries, National Science Foundation, U. S. Coast and Geodetic Survey, U. S. Coast Guard, U. S. Naval Oceanographic Office, University of Washington, Oregon State University, Scripps Institution of Oceanography, Agricultural and Mechanical College of Texas, University of Miami, Hudson Laboratory, Lamont Geological Observatory, Narragansett Marine Laboratory, and Woods Hole Oceanographic Institution.

"Oceanography: After a Prosperous Decade, Agency Planners Agree on a Grand Design for Next 10 Years," by John Walsh, article, *Science*, vol. 141, no. 3580, August 9, 1963, pp. 506-507, printed, single copy 35 cents. American Association for the Advancement of Science, 1515 Massachusetts Ave. NW., Washington 5, D. C. One of the fastest growing items in the Federal science budget has been appropriations for oceanography, which rose from less than \$10 million in fiscal year 1953 to about \$124 million for fiscal 1963. The Interagency Committee on Oceanography recently made public its most ambitious effort to date, Oceanography: The Ten Years Ahead, subtitled "A Long Range National Oceanographic Plan, 1963-1972." Over 10 years the plan calls for an increase in the number of oceanographic ships from 76 to 128 (some 30-40 ships would be replaced), major laboratories from about 50 to more than 70, and professional manpower from 2,700 to over 6,000. The annual oceanography budget in 1970 would be \$350 million.

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B. R. Tunbridge, Fisheries Technical Report No. 6, 42 pp., illus., processed. New Zealand Marine Department, Wellington, New Zealand, 1962.

Survey of the Oyster Potential of Hawaii, by Albert K. Sparks, 50 pp., illus., processed. Division of Fish and Game, Department of Land and Natural Resources, Honolulu, Hawaii, May 1963. Discusses a survey conducted in March 1962 of existing oyster beds in the Hawaiian Islands. Covers the history of efforts to culture various species of oysters, methods and materials used in the present survey, description of oyster beds encountered, discussion of the biology and ecology of Hawaiian oysters, inspection of potential sites for transplantation of oysters from West Loch, Pearl Harbor, and recommendations for future development of oyster stocks.

PHOTOGRAPHY:

Underwater Photography Simplified, by Jerry Greenberg, 53 pp., illus., printed. Seahawk Products, P. O. Box 1157, Coral Gables, Fla., 1958.

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"How Fish Breathe," by Arden R. Gauvin, article, Pennsylvania Angler, vol. 32, no. 7, July 1963, pp. 2-3, illus., printed, single copy 25 cents. Pennsylvania Fish Commission, South Office Bldg., Harrisburg, Pa.

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The Value of Antibiotics in Artificial Rearing of Young Salmon, by E. M. Malikova and N. I. Kotova, Translation Series No. 397, 1 p., processed. (Translated from the Russian, Trudy N. -I. Instituta Rybnogo Khoziaistva Soveta Narodnogo Khoziaistva Latvinskoi SSSR (Trudy LatvNIRO), vol. 3, 1961, p. 442.) Fisheries Research Board of Canada, Biological Station, St. Andrews, N. B., Canada, 1962.

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Yablokov, article, Translations from Zoologicheskii Zhurnal, vol. 41, no. 12, 1962, OTS 63-20176, pp. 34-44, illus., processed, \$1.25. (Translated from the Russian, Zoologicheskii Zhurnal, vol. 41, no. 12, 1962, pp. 1875-1882.) Office of Technical Services, U. S. Department of Commerce, Bldg. T-30, Ohio Dr. and Independence Ave. SW., Washington 25, D. C. February 7, 1963.

"Harp Seals and the Sealing Industry," by David Sergeant, article, Trade News, vol. 15, no. 12, June 1963, pp. 3-9, illus., processed. Director of the Information and Consumer Service, Department of Fisheries, Ottawa, Canada. Summarizes present knowledge of the harp seals' biology, the current state of the fishery, and its likely impact on the stocks. The status of the rarer hood seal and the methods of killing seals are also discussed. These stocks migrate from Greenland to the Atlantic Coast of Canada and Arctic Coast of the U. S. S. R. Future stabilization of these declining herds is possible as a result of Canada's 1961 proposal to the International Commission for the Northwest Atlantic Fisheries (ICNAF) that the conservation of harp and hood seals be brought under the authority of this organization.

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"The Shark that Hibernates," by L. Harrison Matthews, article, New Scientist, vol. 13, March 29, 1962, pp. 756-759, illus., printed. New Scientist, Cromwell House, Fulwood Pl., High Holborn, London WC1, England.

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"If You Don't Know Your Cone Shells, Don't Touch Them!" article, Pacific Islands Monthly, vol. 33, no. 12, July 1963, pp. 29, 31, 35, illus., printed. Pacific Islands Monthly, G. P. O. Box 3408, Sydney, Australia. The danger of inexperienced people handling any kind of cone shell found on reefs throughout the Pacific has been emphasized recently following publicity in Australia about a highly lethal cone shell, Conus geographus.

"Shell Polishing and Carving," by R. Powell, article, South Pacific Bulletin, vol. 11, no. 2, 1961, pp. 20-22, printed. South Pacific Commission, G. P. O., Box 5254, Sydney, Australia.

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Management Audit for Small Manufacturers, 58 pp., printed, 25 cents. Small Business Administration, Washington, D. C., 1963. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20420.) The questions and answers provided in this booklet should aid the owner-manager of a small manufacturing plant in planning, organizing, directing, coordinating, and controlling the activities of his business adequately. The questions and answers, divided into 15 categories, cover vital areas in the management of a business.

Starting and Managing a Small Business of Your Own, 49 pp., illus., printed, 25 cents. Small Business Administration, Washington, D. C., 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.) Describes the common problems of launching small business operations in general, suggesting specific steps to help those interested in starting and man-

ging a small business to arrive at sound decisions concerning these problems.

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"Oil Drum Smoke House," by Herman Wiedenheft, article, Pennsylvania Angler, vol. 32, no. 8, August 1963, p. 16, illus., printed, single copy 25 cents. Pennsylvania Fish Commission, South Office Bldg., Harrisburg, Pa.

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Salt-Water Fishing Methods, 122 pp., printed. Collier Books, 111 Fourth Ave., New York 3, N. Y., 1962.

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STERN TRAWLERS:

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Tariff Classification Study, Fourth Supplemental Report (Report to the President and to the Congress

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Annual Report of the Game and Fish Commission, State of Texas, for the Fiscal Year 1961-1962, 130 pp., illus., printed. Covers activities of the Commission during September 1, 1961, through August 31, 1962. Includes, among others, sections on water pollution control, inland fisheries, and coastal fisheries. Discusses fresh-water research and management, State fisheries investigations, contract commercial fishing for rough fish and turtles, and hatcheries. The coastal fisheries activities reported include shrimp, blue crab, and oyster projects; finfish research; and bay area studies. Includes statistical data on quantity of landings in coastal areas and the Gulf.

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The trials described in this report were carried out by the U. S. Special Mission for Economic and Technical Assistance under the sponsorship of the Chief of the Merchant Marine and Fisheries Service of Tunisia, in 1961. Describes the design of the net, number and size of meshes, hanging of the trawl, and a sorting trough.

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The Australian Tunas, by D. L. Serventy, Report No. 4, 51 pp., illus., printed. Division of Fisheries, Council for Scientific and Industrial Research, 314 Albert St., East Melbourne, Australia, 1941.

"La Campagne Thoniere Africaine: Les Basques Etaient a l'Heure, Bretons et Vendeens Sont Venus Trop Tard!" (The African Tuna Season: The Basques Were on Time, Bretons and Vendeans Had Come Too Late!), by Rene Benoit, article, France Peche, no. 75, July-August 1963, pp. 41-42, illus., printed in French. France Peche, Boite Postale 179, Lorient, France.

"A Preliminary Report on Tuna in West Coast Waters of South Africa. Part III," by B. van D. de Jager, C. S. de V. Neppen, and R. J. van Wyk, article, The South African Shipping News and Fishing Industry Review, vol. XVIII, no. 6, June 1963, pp. 73, 75, 77, 79, 81, 83, 85, 87, illus., printed, single copy 25 c. (about 35 U. S. cents). Thomson Newspapers, South Africa (Pty.) Ltd., Box 80, Cape Town, South Africa Republic. The last of a three-part series, this article covers tuna competitors and predators; possible relationship between the presence of tuna and the temperature of the water; possible relationship between catch and hydrological environmental conditions; and hydrological data collected in the area, Winter 1960 to Autumn 1961. Concludes that 4 species of tuna occur off the Cape west coast in considerable numbers and can be taken by Japanese-type long-line. However, too little is known of the long-term pattern of occurrence to be certain that they will always be present in sufficient numbers to justify commercial exploitation.

"Relation between Soaking Time and Catch of Tunas, in Longline Fisheries," by K. Sivasubramaniam, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 27, September 1961, pp. 835-845, printed. Japanese Society of Scientific Fisheries, Shiba-Kaigandori 6, Minato-Ku, Tokyo, Japan.

Le Thon Rouge et le Germon, THUNNUS THYNNUS (L.) et GERMO ALALUNGA (Bonn.), Morphologie, Biologie et Peche (Bluefin Tuna and Albacore, Thunnus thynnus (L.) and Germo alalunga (Bonn.), Morphology, Biology and Fishery), by F. Frade and H. Vilela, Estudos, Ensaios e Documentos No. 98, 90 pp., illus., printed in French with Portuguese and English summaries. Junta de Investigacoes do Ultramar, Praca do Principe Real, 20, Lisbon, Portugal, 1962.

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Balik ve Balıkcılık (Fish and Fishery), vol. 11, no. 7, July 1963, 35 pp., illus., printed in Turkish with English table of contents. Balıkcılık Mudurlugu, Besiktas, Istanbul, Turkey. Includes, among others, these articles: "Recommendations on Turkish Fisheries;" "Fishing Bonitos with Hook and Line in Territorial Waters;" and "Characteristics of Various Kinds of Fish Oil."

UNITED KINGDOM:

Torry Research Station Annual Report, 1962, on the Handling and Preservation of Fish and Fish Products, 50 pp., illus., printed, 80 cents. Sales Section, British Information Services, 845 Third Ave., New York 22, N. Y., 1963. Describes accomplishments in research during 1962 on improvement in handling, treatment, and quality of wet fish; freezing and cold storage; smoke curing; canning; and fishery byproducts. Also includes work in bacterial flora of ocean perch, biochemistry of starvation, autoxidation of phospholipids, low molecular weight organic components of flesh, hydration and dehydration of proteins, effects of fat content on diffusion of water in fish muscle, and related subjects. Also contains a list of reports and papers published during 1962 on the handling and preservation of fish and fish products.

UNITED STATES GOVERNMENT:

Federal Organization for Scientific Activities, 1962, NSF 62-37, 606 pp., illus., printed, \$3.50. National Science Foundation, Washington, D. C., August 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20420.) The information contained in this directory was derived primarily from a survey of 40 departments and agencies made by the National Science Foundation in 1961. The data for the most part are correct as of December 1961. The Federal organization for science consists of components of both the Executive and Legislative Branches of the Government. In the Executive Branch, 10 departments and 27 independent agencies contain units which plan, administer, conduct or support scientific activities. Within the Legislative Branch, Congressional Committees, the Library of Congress, the Botanic Garden and the Government Printing Office engage in scientific activities. These agencies range widely in size, functions, fields of science, types of scientific and technological activities supported, contact with non-Government institutions, and types of facilities required. A section on the U. S. Fish and Wildlife Service covers its objectives, scientific activities, the American Fisheries Advisory Committee, field stations and installations, and major developments since 1954.

United States Government Organization Manual, 1963-64, 788 pp., illus., printed, \$1.75. Office of the Federal Register, National Archives and Records Service, General Services Administration, Washington, D. C., June 1, 1963. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20420.) The official organization handbook of the Federal Government. Contains the Constitution of the United States and sections describing the agencies in the legislative, judicial, and executive branches of the Government. Supplemental information includes brief discussions of

quasi-official agencies, selected multilateral international organizations, selected bilateral organizations, charts of the principal Federal agencies, and appendices relating to abolished and transferred agencies and to Government publications. Also describes the agencies connected with fisheries: U. S. Fish and Wildlife Service, Bureau of Commercial Fisheries, and Bureau of Sport Fisheries and Wildlife.

U. S. S. R.:

"Development of the Fishing Industry, Fishing and Problems of Biological Science in the Light of the Resolutions of the Twenty-Second Congress of the CPSU," by G. B. Mel'nikov and N. Ye. Sal'nikov, article, *Translations from Zoologicheskii Zhurnal*, vol. 41, no. 12, 1962, OTS 63-20176, pp. 1-16, processed, \$1.25. (Translated from the Russian, *Zoologicheskii Zhurnal*, vol. 41, no. 12, 1962, pp. 1771-1782.) Office of Technical Services, U. S. Department of Commerce, Bldg. T-30, Ohio Dr. and Independence Ave. SW., Washington 25, D. C., February 7, 1963.

Recent Developments in Soviet Lake and River Fishing, OTS 63-21863, 22 pp., printed. Office of Technical Services, U. S. Department of Commerce, Bldg. T-30, Ohio Dr. and Independence Ave. SW., Washington 25, D. C., May 20, 1963.

VESSELS:

"Fiberglass Pilchard Vessel Is Being Built in Cape," article, *The South African Shipping News and Fishing Industry Review*, vol. XVIII, no. 6, June 1963, pp. 63, 65, illus., printed, single copy 25c. (about 35 U. S. cents). Thomson Newspapers, South Africa (Pty.) Ltd., Box 80, Cape Town, South Africa Republic. The largest fiberglass fishing vessel to be built for commercial use in South Africa, and possibly the largest in the world, is nearing completion near Cape Town. She is 67 feet, 6 inches long, and has a beam of 21 feet. When completed the hull will consist of 8 outside layers of fiberglass and 6 inside layers, with a layer of plastic foam in between the two. Over-all thickness will be 1½ inches. Testing results showed that the fiberglass hull was in many cases stronger than a wooden hull and far more weather-resistant than steel. Because of the leak-proof qualities of fiberglass, the new vessel will be allowed to carry more cargo than a wooden vessel of the same size. Another advantage of this material is that it does not harbor bacteria, thus making the vessel easier to clean.

"New State Standards for Ships of the Fishing-Industry Fleet," by G. B. Terent'yev, article, *Translations on Soviet Transportation*, No. 37, pp. 54-72, illus., processed, \$2.75. (Translated from the Russian, *Rybnoe Khoziaistvo*, no. 10, October 1962, pp. 45-55.) Office of Technical Services, U. S. Department of Commerce, Bldg. T-30, Ohio Dr. and Independence Ave. SW., Washington 25, D. C., February 11, 1963.

"La Nouvelle Orientation de la Pêche au Thon: Un Problème de Construction Navale" (The New Orientation in the Tuna Fishery: A Problem of Ship Construction), by R. Lenier, article, *France Pêche*, no. 75, July-August 1963, pp. 15-17, illus., printed in French. *France Pêche*, Boite Postale 179, Lorient, France.

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

WALRUS:

Marine Mammals, Work Plan J. by Samuel J. Harbo, Jr., 1960-61 Pittman-Robertson Project Report, vol. II, no. 9, 58 pp., illus., processed. Alaska Department of Fish and Game, Juneau, Alaska.

"The Walrus (*Odoboenus rosmarus*--L.) Off the Coast of Norway in the Past and After the Year 1900, Together with some Observations on Its Migrations and 'Cruising Speed,'" by Hjalmar Munthe-Kaas Lund, article, *Astarte*, no. 8, July 25, 1954, pp. 1-12, illus., printed. Zoological Department, Tromsø Museum, Tromsø, Norway.

WEATHER CHARTS:

The following processed weather charts, 2 pp. each, are published by the Weather Bureau, U. S. Department of Commerce, Washington, D. C., and are for sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20420, 10 cents each. Charts show stations displaying small craft, gale, whole gale, and hurricane warnings, explanations of warning displays, and schedules of AM and FM radio, TV, and radiophone stations that broadcast weather forecasts and warnings.

Coastal Warning Facilities Chart, Eastport, Me., to Montauk Point, N. Y., 1963.

Small Craft, Gale, and Whole Gale Warning Facilities Chart, Great Lakes: Huron, Erie, and Ontario, 1963.

Small Craft, Gale, and Whole Gale Warning Facilities Chart, Great Lakes: Superior and Michigan, 1963.

WHALES:

"Marking of Humpback Whales in the Southern Hemisphere," by M. V. Ivashin, article, *Translations from Zoologicheskii Zhurnal*, vol. 41, no. 12, 1962, OTS 63-20176, pp. 17-33, illus., processed, \$1.25. (Translated from the Russian, *Zoologicheskii Zhurnal*, vol. 41, no. 12, 1962, pp. 1848-1858.) Office of Technical Services, U. S. Department of Commerce, Bldg. T-30, Ohio Dr. and Independence Ave. SW., Washington 25, D. C., February 7, 1963.

On Methods of Aging Toothed Whales, by S. E. Kleinenberg and G. A. Klievezal¹, Translation Series No. 407, 9 pp., processed. (Translated from the Russian, *Doklady Akademii Nauk SSSR*, vol. 145, no. 2, 1962, pp. 460-462.) Fisheries Research Board of Canada, Arctic Unit, 505 Pine Ave. W., Montreal 18, Que., Canada, November 1962.

"The Occurrence of the Southern Bottle-Nosed Whale, *Hyperoodon planifrons* Flower, in New Zealand Waters," by Charles McCann, article, *Records of the Dominion Museum*, vol. 4, no. 3, November 30, 1961, pp. 21-27, illus., printed. Dominion Museum, Wellington, New Zealand.

WHALING:

"Departure of Sovetskaya Rossiya Whaling Flotilla for Antarctic," article, *Translations on Soviet Transportation*, No. 37, p. 120, processed, \$2.75. (Translated from the Russian, *Gudok*, November 2, 1962, p. 1.) Office of Technical Services, U. S. Depart-

ment of Commerce, Bldg. T-30, Ohio Dr. and Independence Ave. SW., Washington 25, D. C., February 11, 1963.

"The Whale Marking Cruise of the *Sioux City* off California and Baja California," by Dale W. Rice, article *Norsk Hvalfangst-Tidende* (The Norwegian Whaling Gazette), vol. 52, no. 6, June 1963, pp. 153-160, illus., printed. Hvalfangerforeningen, Sandefjord, Norway. The whale catcher, *Sioux City*, chartered by the U. S. Bureau of Commercial Fisheries, made a whale-marking cruise in the waters off southern California and northern Baja California, from San Francisco Bay south to Isla Guadalupe, November 12-December 1, 1962. Purpose of the cruise was: (1) to obtain data on the distribution and abundance of whales and other marine mammals; (2) to locate areas where whales occur in sufficiently large numbers during the winter season to warrant a more extensive marking program in future years; and (3) to mark as many whales as possible. Of 27 whale marks fired, 16 (on 15 fin and one sperm whale) were effective.

Whaler's Eye, by Christopher Ash, 255 pp., illus., printed, \$7.50. The MacMillan Co., 60 Fifth Ave., New York 11, N. Y., 1962. "There She Blows" has been the cry of the lookout man in the crow's nest of a whaling vessel for centuries. This book is the picture of whaling as seen by one whaler. Its arrangement of half photographs and half words makes it come alive. It depicts life aboard a whaler and has some excellent pictures of whaling in the Antarctic seas. The classic *Moby Dick* depicted the early days of whaling, but here we have the author's account of modern whaling based on his trips aboard the whaler *Balaena*. One important chapter is that devoted to the ethics of whaling and his claim that the whaler is justified in carrying on his trade. After a short description of the living whale, the author describes the whaling fleet, with its factoryships and tankers, freezer vessels, ferries, catchers, and buoy boats. One chapter deals with the different types of whales. Other chapters describe the processing, the whale as raw material, the whaling season, the Antarctic ice, and spare time aboard the vessels. A short chapter summarizes whaling research. And for the photography fan there is a chapter on the techniques and equipment used by the author in taking the 200 photographs that illustrate the book. A short but adequate index completes the book. Anyone with the slightest interest in the sea and in the largest mammals on earth will be interested in possessing a copy of this vividly portrayed story of Antarctic whales and whaling.

--Joseph Pileggi

WHITE SEA:

Atlas Nauchnykh Osnov Rybopromyslovoi Karty Onezhskogo Zaliva Belogo Moria. Chast' 1 (Atlas of the Scientific Bases for the Fisheries Chart of Omega Bay of the White Sea. Part 1--Freshwater Inflow; Surface Seasonal Temperature Changes; Surface Seasonal Salinity Changes; Seasonal Changes in Transparency; Permanent Currents; Zonal Distribution of Water Masses), 54 pp., illus., printed in Russian. Akademiia Nauk SSSR, Moscow, U. S. S. R., 1959.