

# 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.  
SEP. - SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.  
MNL - REPRINTS OF REPORTS ON FOREIGN FISHERIES.  
SL - STATISTICAL LISTS OF DEALERS IN AND PRODUCERS OF FISHERY PRODUCTS AND BYPRODUCTS.

- | Number                               | Title  |
|--------------------------------------|--|
| CFS-2993                             | - Texas Landings, June 1962, 3 pp.   |
| CFS-2994                             | - California Landings, July 1962, 4 pp.  |
| CFS-2996                             | - Rhode Island Landings, July 1962, 3 pp.  |
| CFS-2999                             | - Massachusetts Landings, June 1962, 5 pp.   |
| CFS-3000                             | - Frozen Fish Report, September 1962, 8 pp.  |
| CFS-3013                             | - New Jersey Landings, August 1962, 3 pp.  |
| CFS-3016                             | - Shrimp Landings, May 1962, 6 pp.   |
| CFS-3017                             | - Virginia Landings, August 1962, 3 pp.  |
| CFS-3018                             | - Florida Landings, August 1962, 8 pp.   |
| CFS-3019                             | - Michigan Landings, July 1962, 3 pp.  |
| CFS-3021                             | - South Atlantic Fisheries, 1961 Annual Summary, 8 pp.                             |
| CFS-3022                             | - Louisiana Landings, May 1962, 2 pp.  |
| CFS-3023                             | - Alabama Landings, August 1962, 3 pp.   |
| CFS-3024                             | - Fish Sticks and Fish Portions, July-September 1962, 2 pp.                        |
| CFS-3025                             | - New York Landings, August 1962, 4 pp.  |
| CFS-3026                             | - Louisiana Landings, June 1962, 2 pp.   |
| CFS-3027                             | - Mississippi Landings, August 1962, 3 pp.   |
| CFS-3031                             | - Ohio Landings, August 1962, 2 pp.  |
| CFS-3032                             | - Alaska Fisheries, 1961 Annual Summary, 8 pp.                                     |
| CFS-3033                             | - Rhode Island Landings, August 1962, 3 pp.  |
| CFS-3036                             | - Maryland Landings, September 1962, 3 pp.   |
| CFS-3038                             | - Shrimp Landings, June 1962, 5 pp.  |
| CFS-3039                             | - Maine Landings, August 1962, 4 pp.   |
| CFS-3044                             | - Florida Landings, September 1962, 8 pp.  |
| Sep. No. 661                         | - Snapper Trawling Explorations Along the Southeastern Coast of the United States. |
| Sep. No. 662                         | - The United States Fishing Industry and the European Common Market.               |
| Sep. No. 663                         | - Hydraulic Press for Laboratory Preparation of Fish Press Cake.                   |
| SL-120                               | - Firms Canning Anchovies, 1961, p. 1 (Revised)                                    |
| Firms Manufacturing, 1961 (Revised): |  |
| SL-152                               | - Oyster Shell Products, 2 pp.   |
| SL-153                               | - Miscellaneous Industrial Fishery Products, 1 p.                                  |

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 5, D.C.

- | Number | Title  |
|--------|--|
| MNL-3  | - Legislative Actions Affecting Commercial Fisheries, 87th Congress, 1st. Session 1961, and 2nd Session 1962, 38 pp. |
| MNL-40 | - Fisheries in Morocco, 1961, 15 pp.   |
| MNL-60 | - Netherland's Fisheries, 1961, 9 pp.  |
| MNL-74 | - Fisheries Survey of Shrimp Fisheries in Guatemala, El Salvador, and Nicaragua, 13 pp.                              |
| MNL-75 | - Argentina's Fishing Industry, 1961, 8 pp.  |

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

(Baltimore) Monthly Summary--Fishery Products, September 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 and shellfish at Baltimore by species and by states and provinces; total receipts by species and comparisons with previous periods; and wholesale prices for fresh fishery products on the Baltimore market; for the month indicated.

California Fishery Market News Monthly Summary, Part I - Fishery Products Production and Market Data, September and October 1962, 18 pp. each (Market News Service, U. S. Fish and Wildlife Service, Post Office Bldg., San Pedro, Calif.) California cannery receipts of tuna and tunalike fish and other species used for canning; pack of canned tuna, tunalike fish, sardines, mackerel, and anchovies; market fish receipts at San Pedro, Santa Monica, and Eureka areas; California and Arizona imports; canned fish and frozen shrimp prices; ex-vessel prices for cannery fish; Oregon and Washington receipts (domestic and imports) of fresh and frozen tuna and tunalike fish; for the months indicated.

(Chicago) Monthly Summary of Chicago's Wholesale Market Fresh and Frozen Fishery Products Receipts, Prices, and Trends, October 1962, 14 pp. (Market News Service, U. S. Fish and Wildlife Service, U. S. Customs House, 610 South Canal St., Room 1014, Chicago 7, Ill.) 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 month indicated.

Gulf of Mexico Monthly Landings, Production and Shipments of Fishery Products, October 1962, 8 pp. (Market News Service, U. S. Fish and Wildlife Service, Rm. 609, 600 South St., New Orleans 12, La.) Gulf

States shrimp, oyster, finfish, and blue crab landings; crab meat production; LCL express shipments from New Orleans; wholesale prices of fish and shellfish on the New Orleans French Market; fishery imports at Port Isabel and Brownsville, Texas, from Mexico; and sponge sales; for the month indicated.

Monthly Summary of Fishery Products Production in Selected Areas of Virginia, North Carolina, and Maryland, October 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, September 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 for ports in Massachusetts (Boston, Gloucester, New Bedford, and Provincetown, 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.

New York City's Wholesale Fishery Trade--Monthly Summary--August-September 1962, 18 pp. each (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 months indicated. The September Monthly Summary also includes holdings of selected fishery products, New York Metropolitan Area.

(Seattle) Washington and Alaska Receipts and Landings of Fishery Products for Selected Areas and Fisheries, Monthly Summary, October 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; 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 FOLLOWING SERVICE PUBLICATION IS FOR SALE AND IS AVAILABLE ONLY FROM THE SUPERINTENDENT OF DOCUMENTS, WASHINGTON 25, D. C.

Development of Eggs and Yolk-Sac Larvae of Yellowfin Menhaden, by John W. Reintjes, Fishery Bulletin 202 (from Fishery Bulletin of the Fish and Wildlife Service, vol. 62, pp. 93-102), 14 pp., illus., printed, 15 cents, 1962.

## 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.

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### ALGAE:

First Experiment in the Reproduction of Unicellular Green Algae in Open Reservoirs, by N. P. Arutyunyan, USDA Tr A-1356, 7 pp., processed. (Translated from the Russian, Iz Ak Nauk Armyanskoy SSSR, vol.14, no. 5, 1961, pp. 85-91.) Foreign Agricultural Service, Rm. 5609, U. S. Department of Agriculture, 14th and Independence Ave. SW, Washington 25, D. C.

"Some Principles of Intensification of Photosynthetic Productivity of Unicellular Algae," by A. A. Nichiporovich, and V. E. Semenenko, 10 pp., processed. (Translated from the Russian, Iz Ak Nauk SSSR, Ser Biol, no. 2, 1962, pp. 163-172.) Foreign Agricultural Service, Rm. 5609, U. S. Department of Agriculture, 14th and Independence Ave. SW, Washington 25, D. C.

### ALGERIA:

"La Peche a Nemours et a Beni-Saf" (The Fishery at Nemours and at Beni-Saf), by J. Couespel du Mesnil, article, La Peche Maritime, vol. 41, no. 1014, September 1962, pp. 633-636, illus., printed in French. La Peche Maritime, 190 Boulevard Haussman, Paris, France.

### AMINO ACIDS:

"Amino Acid Components of Tissues of Crustaceans. I--Amino Acid Components of the Muscles of Carcinus maenas from the Time of Passing from Sea Water to Brackish Water During Molt," by Gh. Duchateau, M. Florkin, and Ch. Jeuniaux, article, Chemical Abstracts, vol. 55, October 2, 1961, 20234g, printed. Chemical Abstracts, The American Chemical Society, 1155 16th St. NW., Washington, D. C.

"2-Aminoethanesulfinic Acid of Oysters," by Shunji Tanaka, article, Chemical Abstracts, vol. 55, May 15, 1961, 9704b, printed. Chemical Abstracts, The American Chemical Society, 1155 16th St. NW., Washington, D. C.

### ANTIBIOTICS:

"Effects of Tetracycline Antibiotics on the Products of Anserinase Action in Chill Stored Haddock (Gadus aeglefinus) Muscle," by B. Sanz Perez and N. R.

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

Jones, article, Journal of Food Science, vol. 27, January-February 1962, pp. 69-72, printed. Institute of Food Technologists, 510-522 No. Hickory St., Champaign, Ill.

#### AUSTRALIA:

Manufacturing Industries, 1960-61. No. 23--Meat and Fish Preserving, by K. M. Archer, 9 pp., processed. Commonwealth Bureau of Census and Statistics, Canberra, Australia, September 18, 1962.

#### BARENTS SEA:

\*"Rezultaty ucheta molodi treski i pikshi v Barentsevom more zimoi 1959/1960 godov" (The Results of a Count of Young Cod and Haddock in the Barents Sea during the Winter of 1959-1960), by A. S. Baranenkova, article, Nauchno-Tekhnika Byulleten Polyarnyi Nauchno-Issledovatel'skaia i Proekt Instytut Morskogo Rybnoe Khoziaistvo i Okeanografiia, vol. 3, no. 13, 1960, pp. 15-20, printed in Russian.

#### BASS:

"Growth and Survival of Young Spotted Bass in Lake Martin, Alabama, by Bradford E. Brown and Walter M. Tatum (Auburn University Agricultural Experiment Station, Auburn, Ala.), article, Transactions of the American Fisheries Society, vol. 91, no. 3, 1962, pp. 324-326, printed. Secretary, American Fisheries Society, P. O. Box 483, McLean, Va.

"White Bass Feeding: Scent or Sight," by George N. Greene (Auburn University, Auburn, Ala.), article, Transactions of the American Fisheries Society, vol. 91, no. 3, 1962, p. 326, printed. Secretary, American Fisheries Society, P. O. Box 483, McLean, Ala.

#### BIOCHEMISTRY:

\*"Fish Hydrolysates. I--Rate of Hydrolysis of Fish Flesh with Papan," by D. P. Sen and others (Central Food Technology Research Institute, Mysore, India); "II--Standardization of Digestion Conditions for Preparation of Hydrolysates Rich in Peptones and Proteoses," by N. V. Sripathy and others, articles, Food Technology, vol. 16, no. 5, 1962, pp. 138-141; 141-142, printed.

\*"Studies on the Physiological Chemistry of Phosphorus Compounds in Fish Muscle. IV--On the Seasonal Variation of Phosphorus Compounds Content," by T. Nakano (Holy Ghost Junior College, Akita City, Japan), article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 27, no. 2, 1961, pp. 147-149, printed in Japanese with English summary.

#### BIVALVES:

"Effects of Turbidity on Some Larval and Adult Bivalves," by Victor L. Loosanoff (U. S. Bureau of Commercial Fisheries, Milford, Conn.), article, Proceedings of the Gulf and Caribbean Fisheries Institute, vol. 14, 1961, pp. 80-94, printed. Gulf and Caribbean Fisheries Institute, University of Miami, Marine Laboratory, #1 Rickenbacker Causeway, Miami 49, Fla.

#### BLUEFISH:

"Age in a Small Sample of Bluefish (Pomatomus saltatrix Linnaeus)," by Richard H. Backus (Woods Hole Oceanographic Institution, Woods Hole, Mass.),

article, Breviora Museum of Comparative Zoology (Harvard), vol. 159, 1962, pp. 1-4, printed. Breviora Museum of Comparative Zoology, Harvard University, Cambridge 38, Mass.

\*"A Racial Investigation of the Bluefish, Pomatomus saltatrix (Linnaeus) of the Atlantic Coast of North America," by William Albert Lund, Jr. (Instituto Oceanografía, Cumana, Venezuela), article, Boletín Instituto Oceanografía, vol. 1, no. 1, 1961, pp. 73-129, illus., printed in English with Spanish summary.

#### BROWNING:

"Studies on the Browning of Fish Flesh. VI--Changes of Some Glycolytic Intermediates by Heat," by Fumio Nagayama, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 27, February 1961, pp. 158-161, printed. Japanese Society of Scientific Fisheries, 6-chome, Shiba-Kaigandori, Minato-Ku, Tokyo, Japan.

#### BULGARIA:

New Prospects for Bulgarian Fishing, by Mikhail Nishkov, JPRS 14905, 5 pp., processed. (Translated from the Bulgarian, Ribno Stopanstvo, no. 6, 1962, pp. 3-5.) Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C.

#### CALIFORNIA:

California Fish and Game, vol. 48, no. 4, October 1962, 83 pp., illus., printed, single copy 75 cents. California Fish and Game, Printing Division, Documents Section, Sacramento 14, Calif. Includes, among others, articles on: "A Sea Urchin, a Lobster and a Fish, New to the Marine Fauna of California," by John E. Fitch; "The Southern California Mackerel Fishery and Age Composition of the Pacific Mackerel Catch for the 1958-59 Season," by Harold Hyatt; "California Sea Lion Census for 1958, 1960, and 1961," by Wm. Ellis Ripley, Keith W. Cox, and John L. Baxter; "Age and Length Composition of the Sardine Catch Off the Pacific Coast of the United States and Mexico in 1959-60," by Doyle E. Gates and Robert S. Wolf; and "Potential Profits in the California Salmon Fishery," by Donald H. Fry, Jr.

#### CAMEROUN:

"Pour se développer, la pêche camerounaise a besoin d'encouragements et d'aide" (In Order to Develop, the Fishery of Cameroun Needs Encouragement and Aid), article, La Pêche Maritime, vol. 41, no. 1014, September 1962, pp. 640-641, illus., printed in French. La Pêche Maritime, 190 Boulevard Haussmann, Paris, France.

#### CANADA:

Fisheries Statistics British Columbia, 1961, 20 pp., illus., printed in French and English, 50 Canadian cents. Queen's Printer and Controller of Stationery, Ottawa, Canada, 1962. Contains data on quantity and value of fishery products by species, British Columbia, 1949-61; quantity and value by species and fisheries districts, 1960-61; capital equipment employed in primary fisheries operations, 1960-61; and number of persons engaged in primary fisheries operations, 1960-61.

Preparing Shipments to Canada, WTIS Part 2, Operations Report No. 62-50, 18 pp., printed, 10 cents.



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

Bureau of International Programs, U. S. Department of Commerce, Washington, D. C., September 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.). Goods sent to Canada for consumption in that country are exempt from U. S. export control and do not require a Department of Commerce export license. However, if goods are sent with the knowledge or intention that they will be reexported from Canada to another foreign destination, they are subject to the same export controls as if sent to such other foreign country direct from the United States. The report discusses shipping documents; shipments by mail and truck; labeling, marking, packing; and prohibited or controlled goods. It also discusses entry, transit, and warehousing; abandoned and reexported goods; customs procedures; samples and commercial travelers; advertising matter; and educational films and other material.

#### CANNED FISH:

"Nutritive Value of Canned Fish: Effect of Canning, Storage, and Antioxidants," by P. L. Sawant and N. G. Magar, article, Chemical Abstracts, vol. 56, March 5, 1962, 5170d, printed. Chemical Abstracts, The American Chemical Society, 1155 16th St. NW., Washington, D. C.

#### CHAR:

\*"O sistematičeskom položennii kamčatskikh gol'tsov roda Salvelinus" (The Taxonomic Status of Kamchatka Chars of the Genus Salvelinus), by K. A. Savvaitova, article, Zoologičeski Zhurnal, vol. 40, no. 11, 1961, pp. 1696-1703, printed in Russian with English summary.

#### COALFISH (POLLOCK):

"Om Seiens Ernaering" (On the Food of the Coalfish), by Ulf Lie, article, Fiskets Gang, vol. 48, no. 38, September 20, 1962, pp. 522-525, illus., printed in Norwegian with English summary. Fiskets Gang, Fiskeridirektoratet, Radstuplass 10, Bergen, Norway.

#### COLOMBIA:

"La Importancia de Nuestra Posibilidad Pesquera" (The Importance of Our Potential in Fisheries), by Antonio Oviedo; "La Situacion de la Pesca en Colombia el Año de 1961" (The Status of the Colombian Fisheries in 1961), by Jorge E. Carrillo Baron, articles, Peces y Conservas, vol. 2, no. 14, August-September 1962, pp. 22-26, printed in Spanish. Peces y Conservas, Carrera 19-A, no. 12-90, Bogota, Colombia.

#### COMMON MARKET:

"Los Productos de la Pesca en el Mercado Comun" (Fishery Products in the Common Market), article, Peces y Conservas, vol. 2, no. 14, August-September 1962, pp. 2-4, printed in Spanish. Peces y Conservas, Carrera 19-A, No. 12-90, Bogota, Colombia.

#### COMPOSITION:

"The Composition of Commercially Important Fish Taken from New England Waters. II--Proximate Analyses of Butterfish, Flounder, Pollock, and Hake, and Their Seasonal Variation," by Richard O. Brooke, Elinor M. Ravesi, and Maynard A.

Steinberg, article, Journal of Food Science, vol. 27, January-February 1962, pp. 73-79, printed. Institute of Food Technologists, 510-522 N. Hickory St., Champaign, Ill.

"Composition of Some Sea and Fresh Water Fishes," by M. Panaiotova and D. Bail'ozov, article, Chemical Abstracts, vol. 56, March 19, 1962, 6429a, printed. Chemical Abstracts, The American Chemical Society, 1155 16th St. NW., Washington, D. C.

#### CRABS:

"Blue Crab Movement in Coastal South Carolina, 1958-59," by Kenneth J. Fischler and Charles H. Walburg (U. S. Bureau of Commercial Fisheries, Beaufort, N. C.), article, Transactions of the American Fisheries Society, vol. 91, no. 3, 1962, pp. 275-278, printed. Secretary, American Fisheries Society, P. O. Box 483, McLean, Va.

Centolla Industry in Tierra del Fuego. Part 2--April 1962-June 1962 (Continuation from November 1961-January 1962), by Ole J. Heggem, 36 pp., illus., processed. Ministerio de Agricultura, Direccion de Agricultura y Pesca, Santiago, Chile. The first phase of the centolla (king crab) study program consisted of the collection of catch data off Porvenir from October 31, 1961, to January 25, 1962. This paper provides additional data concerning the possibility of a king crab (Lithodes antarcticus) fishery from April to June 1962. During this period trial fishing efforts were made with tangle nets and with Alaskan-type king crab traps. In addition, a brief trial was made with a German herring trawl. Commercial fishing for centollas with traps, trawls, or tangle nets does not appear feasible in the Porvenir during the period of observation from February to the end of June, due to the small catch and poor quality of male centollas at that time.

Notes on the Biology and Economic Importance of the Land Crab CARDISOMA GUANHUMI, Latreille, of Puerto Rico, by Carmelo Feliciano, 32 pp., illus., processed. Department of Agriculture of Puerto Rico, San Juan, Puerto Rico, May 2, 1962. The land crab is commonly known as "Juey" or Cangrejo" in Puerto Rico, where its fishery has a considerable local importance. Its flesh is considered a delicacy, and the commercial catch has an estimated value of \$70,000 per year to the fishermen. It is regarded as a pest in the sugar-cane plantations to the point that in certain coastal farms an annual allotment has to be set for its control. This paper embodies the results of observations on the life history and ecological aspects of this species both in the laboratory and in the field, and of the current practices followed by the fishery. The study was undertaken from July 1957 to June 1958 to procure biological and economic information to provide a sound basis for the conservation and management of the resource.

#### CRUSTACEA:

The Physiology of Crustacea. Volume II--Sense Organs, Integration and Behavior, by Talbot H. Waterman, 686 pp., illus., printed, \$22. Academic Press Inc., 125 E. 23rd St., New York 10, N. Y.

#### DENMARK:

Import Tariff System of Denmark, WTIS Part 2, Operations Report No. 62-51, 2 pp., printed, 10 cents.

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Bureau of International Programs, U. S. Department of Commerce, Washington, D. C., September 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Covers units of currency, weights, and measures; basis of specific and ad valorem duties; method of payment; preferential duties; general rules on customs classification; internal taxes; general turnover tax; shipping documents; import restrictions; and related information. There is no customs surtax on imports into Denmark.

#### DOGFISH:

"Norske Pigghamerkinger 1958-61" (Norwegian Spiny Dogfish Tagging, 1958-61), by Olav Aasen, article, Fiskets Gang, vol. 48, no. 37, September 13, 1962, pp. 507-511, illus., printed in Norwegian with English summary. Fiskets Gang, Fiskeridirektoratet, Radstuplass 10, Bergen, Norway.

#### DOLPHINS:

Man and Dolphin, by John C. Lilly, 310 pp., illus., printed. Doubleday & Company, Inc., Garden City, N. Y., 1961.

#### DOMINICAN REPUBLIC:

Import Tariff System of the Dominican Republic, WTIS Part 2, Operations Report No. 62-49, 2 pp., printed, 10 cents. Bureau of International Programs, U. S. Department of Commerce, Washington, D. C., September 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Covers currency, weights, and measures; bases of duties; payment of duties; preferential rates; customs surtaxes; other taxes collected in customs; excise taxes; wharfage, storage, and other charges; consular documents; trade controls; exchange controls; and other requirements.

#### ECOLOGY:

\*Voprosy ekologii ryb. Sb. rabot (Questions of the Ecology of Fishes. A Symposium), 182 pp., illus., printed in Russian.

#### EELS:

\*"Sluchai obnaruzheniya ugrei v tele drugikh ryb" (Cases in Which Eels Were Discovered in the Bodies of Other Fish), by P. G. Oshmarin and others, article, Zoologicheski Zhurnal, vol. 40, no. 12, 1961, pp. 1896-1898, printed in Russian with English summary.

#### FISH BEHAVIOR:

\*"Ob osobennostyakh oboronitel'nogo povedeniya stai nekotorykh pelagicheskikh ryb" (Specific Features of the Defensive Behavior of Schools of Some Pelagic Fish), by D. V. Radakov, article, Trudy Instituta Morfologii i Zhivotnykh Akademii Nauk SSSR, vol. 39, 1961, pp. 47-71, printed in Russian.

"The Schooling of Fishes," by Evelyn Shaw, article, Scientific American, vol. 206, no. 6, 1962, pp. 128-138, printed. Scientific American, 415 Madison Ave., New York 17, N. Y.

#### FISH CULTURE:

\*"Voprosy organizatsii rybovodstva" (The Organization of Fish-Raising), by F. Sukhoverkhov, article, Rybovodstvo i Rybolovstvo, vol. 6, 1961, pp. 5-8, printed in Russian.

#### FISH FEEDING:

"Determination of Feeding Chronology in Fishes," by Reznat M. Darnell and Richard R. Meierotto (Marquette University, Milwaukee, Wis.), article, Transactions of the American Fisheries Society, vol. 91, no. 3, 1962, pp. 313-320, printed. Secretary, American Fisheries Society, P. O. Box 483, McLean, Va.

#### FISH-LIVER OILS:

"The Glyceryl Ethers in the Liver Oils of Elasmobranch Fish," by Bo Hallgren and Sam Larsson, article, Journal of Lipid Research, vol. 3, January 1962, pp. 31-38, printed. Journal of Lipid Research, University Publishers, Inc., 59 E. 54th St., New York 22, N. Y.

#### FISH MANAGEMENT:

"The A. B. C.'s of Fish Management," by John R. Greeley, article, Conservationist, vol. 16, no. 4, 1962, pp. 16-17, illus., printed. The New York State Conservation Dept., Rm. 335, State Campus, Albany 1, N. Y.

#### FISH MEAL:

"Protein, Phosphorus, and Calcium in Samples of Fish Meal Made from the Three Clupeids of Senegal (Ethmalosa fimbriata, Sardinella eba, and Sardinella aurita)," by M. P. Doutre, article, Chemical Abstracts, vol. 55, June 12, 1961, 11695i, printed. Chemical Abstracts, The American Chemical Society, 1155 16th St. NW., Washington, D. C.

#### FISH MORTALITY:

"Fish Feeding on Imported Fire Ants," by Denzel E. Ferguson (Mississippi State University, State College, Miss.), article, Journal of Wildlife Management, vol. 26, no. 2, 1962, pp. 206-207, printed. Wildlife Society, 2000 P St., NW., Washington, D. C. In the summer of 1960, large quantities of imported fire ants were fed to fish under field conditions and 68 apparently unharmed bluegills were recovered which had consumed 1-78 ants each. One small fish was suspected of dying from eating ants. It is suggested that ants may be capable of killing fish by stinging the lining of the empty stomach, that other food items reduce the probability of such stings, and that any toxins are rendered harmless upon entering the intestine. Fish mortality from ant consumption is presumed to be a rare phenomenon, if it occurs at all.

#### FISH OIL:

"Feed Men Hear Report on Recent Work with Fish Oil in Rations. Part 4--Fish Meal, Condensed Fish Solubles, Methionine Hydroxy Analogue, and Poultry Byproducts Meal as Variables in Broiler Rations," by Roger Berglund, article, Feedstuffs, vol. 34, March 31, 1962, pp. 6, 70, printed. Feedstuffs, Miller Publishing Co., 2501 Wayzata Blvd., Minneapolis 5, Minn.

"The Growth Promoting Properties of Menhaden Fish Oil as Influenced by Various Fats," by Leonard M. Danksy (Lipman Research Center, Augusta, Maine), article, Poultry Science, vol. 41, no. 4, July 1962, pp. 1352-1354, printed, single copy \$2.85. The Poultry Science Association, Texas A and M College System, College Station, Tex.

"Some Responses of Chickens to Menhaden Fish Oil in the Diet," by Hardy M. Edwards, Jr. and J. E.

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Marion (University of Georgia, Athens, Ga.), article, Federation Proceedings, vol. 21, no. 2, 1962, p. 392, printed. Federation Proceedings of American Societies for Experimental Biology, 9650 Wisconsin Ave. NW., Washington 14, D. C.

#### FISH PASTE:

"Frozen Fish Paste as Material for Fish Cakes," by Kyosuke Nishiya, article, Chemical Abstracts, vol. 55, October 16, 1961, 21411h, printed. Chemical Abstracts, The American Chemical Society, 1155 16th St. NW., Washington, D. C.

#### FISH PONDS:

\*"Rybovodstvo Smolenskoi oblasti" (Fish-Raising in Smolensk Oblast), by S. Dorokhov, article, Rybovodstvo i Rybolovstvo, vol. 6, 1961, pp. 9-11, printed in Russian.

#### FISH POPULATIONS:

"On Estimating Mortality Coefficients in Exploited Fish Populations, Given Two Censuses," by Henry A. Regier (Cornell University Department of Conservation, Ithaca, N. Y.), article, Transactions of the American Fisheries Society, vol. 91, no. 3, 1962, pp. 283-294, printed. Secretary, American Fisheries Society, 233 Broadway, New York, N. Y., P. O. Box 483, McLean, Va.

\*"O prichinakh flyuktuatsii chislennosti ryb" (The Cause of Fluctuations in the Size of Fish Populations), by G. V. Nikol'skii, article, Voprosy Ikhtologii, vol. 1, no. 4, 1961, pp. 659-665, printed in Russian.

#### FOOD MANAGEMENT:

Using Storage Controls to Simplify Determination of Daily Food Costs, Food Management Leaflet 5, 12 pp., illus., printed. Cooperative Extension Service, University of Massachusetts, 408 Atlantic Ave., Rm. 303, Boston 10, Mass., 1962. The use of correct storage controls makes it possible for food service operators to determine food cost daily with a good degree of accuracy and a relatively small amount of work. Though most food service operators determine food cost figures at monthly intervals through the use of inventory and purchase figures, many find that the resulting information becomes available too late. Measures that could have been taken to correct bad situations are no longer possible. This leaflet emphasizes the importance of storage as a major control point for management, and describes the storage forms which can be utilized to get good control. Use of the forms are illustrated by examples.

#### FOOD TECHNOLOGY:

Color of Foods, by Gordon Mackinney and Angela C. Little, 321 pp., illus., printed, \$12.70 in U. S. and \$13.70 foreign. The Avi Publishing Co., Inc., P. O. Box 388, Westport, Conn., 1962. The book's primary purpose is the discussion of the problems confronting the food technologist and chemist when he considers the color of foods. Very aptly, the introduction points out that our perception of the world around us is determined by our sensory impressions; also, that we learn to associate certain objects with certain colors. The first impression of a food is usually visual and a major

part of our willingness to accept a food depends on its color. Since more and more the food industry, including that segment producing fishery products, is becoming more quality conscious, it is important to remember that color can serve as a useful criterion of quality. However, the authors caution that this can be misleading. But they point out that neither natural nor artificial coloring matters should ever be added to cover up a defect, although adding a harmless coloring matter for esthetic reasons can of course be fully justified. The authors show that through visual inspection the observer can draw a number of valid conclusions regarding the state of a food, but subjective evaluations are of limited usefulness, and specifications couched in descriptive language are without question, unsatisfactory. The food technologist must, therefore, necessarily be interested in the objective methods of color measurement, in the specification of color in terms of an established color system, and in the formulation of color tolerances on a quantitative basis. After introducing the subject by discussing vision and the perception of color, the authors review the work which led to the establishment of the C. I. E. and Munsell color spaces. The Lovibond system is considered next, followed by a discussion of the bases for various color collections. The reflectance and transmittance data needed in determining the C. I. E. specifications for color are presented. One chapter deals with the problem of color-difference measurement and another chapter with color tolerances. One chapter adequately covers instrumentation. Also, an entire chapter is devoted to natural coloring matters. Many Federal and state specifications of color are outlined, and the final chapter discusses the trends of research in color of foods. The book has several appendices which contain suggestions for the technologist trying to maintain quality as the food flows into the plant to be processed and stored. One appendix covers visual appraisal of color; another objective measurement of color; and the last, C. I. E. equivalents of the Munsell Value Scales. Although fish is not specifically covered, this book is of interest to fish technologists and processors. The book has a good bibliography.

--Joseph Pileggi

Food Texture, by Samuel A. Matz, 298 pp., illus., printed, \$11.50 in U. S., \$12.50 foreign. The Avi Publishing Co., Inc., Westport, Conn., 1962. This is a comprehensive survey of the technological aspects of food texture. The book consists of four sections. The first two chapters (which make up Section I) include general background information on the subject, a justification of the method of classification used in the next section, and a discussion of the commercial importance of food texture. The chapters that make up Section II discuss in detail the molecular and microscopic features of the basic texture-influencing structures in foods. The effects of some important processing techniques on texture are described in Section III. The processing methods discussed are: blanching, cooking, and canning; freezing; dehydration; radiation; chemical and osmotic processing methods. The spontaneous changes in texture which occur during storage are considered in the final three chapters which make up Section IV. The author admits that some important types of foods had to be treated in a cursory manner. How-



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ever, in view of the importance of fish as a high type of protein food, it would seem to me that fish and fishery products should have been given a little more adequate treatment. Each chapter concludes with a bibliography, but even here the author, as far as fish is concerned, has failed to list the most important papers written on texture and texture changes in fishery products. Yet this book will be of considerable value to fishery technologists, firms producing food products, and even handlers of food products as it will give the latter group a better understanding of what is involved in packing products of high quality and uniform texture. The book is indexed.

--Joseph Pileggi

#### FRANCE:

Establishing a Business in France, WTIS Part 1, Economic Report No. 62-68, 12 pp., printed, 15 cents. Bureau of International Programs, U. S. Department of Commerce, Washington, D. C., September 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Discusses Government policy on investment, entry and repatriation of capital, trade factors affecting investment, business organization, regulations affecting employment, and taxation.

#### FRESH-WATER FISH:

\*"Inventaire biologique des poissons et des pecheries de la region du lac Saint-Pierre" (Biological Inventory of the Fishes and Fisheries of the Lac Saint-Pierre Region), by Jean-Paul Cuerrier, article, Naturaliste Canadien, vol. 89, nos. 6/7, 1962, pp. 193-214, illus., printed in French.

#### FROZEN FOOD:

"Calculating the Keeping Quality of Frozen Foods," by Mogens Jul, article, Food Manufacture, vol. 36, December 1961, pp. 520-526, printed. Food Manufacture, Leonard Hill, Ltd., 9 Eden St., London NW1, England.

#### FUNGI:

Fungi in Oceans and Estuaries, by T. W. Johnson, Jr. and F. K. Sparrow, Jr., 662 pp., illus., printed, \$25. Cramer, Weinheim, Germany, 1961.

#### GENERAL:

"Freezing Resistance in Some Northern Fishes," by Malcolm S. Gordon (University of California at Los Angeles), Ben H. Amdur, and Per F. Scholander, article, Biological Bulletin, vol. 122, no. 1, 1962, pp. 52-62, printed. Marine Biological Laboratory, Woods Hole, Mass.

The Life Story of the Fish: His Morals and Manners, by Brian Curtis, 284 pp., illus., printed, \$1.50. Dover Publications, 1780 Broadway, New York 19, N. Y. Reprint (1949) of informally written book by an ichthyologist for the layman.

\*"K metodike issledovaniya rannikh stadii promyslovykh ryb" (A Method for Studying the Early Stages of Commercially Valuable Fishes), by A. S. Baranenkova, article, Nauchno-Tekhnika Byulleten Polyarnyi Nauchno-Issledovatel'skaia i Proekte Instituta Morskogo Rybnoe Khoziaistvo i Okeanografiia, vol. 2/3, nos. 16/17, 1961, pp. 10-13, printed in Russian.

#### GENERAL AGREEMENT ON TARIFFS AND TRADE:

Trade in Agricultural Products--Reports of Committee II on Country Consultations, 504 pp., processed, Sw. Fr. 10.50 (US\$2.43). The Information and Library Services, GATT Secretariat, Villa Le Bocage, Palais de Nations, Geneva 10, Switzerland, 1962. Contains the reports on the consultations held with 38 contracting parties to the General Agreement on Tariffs and Trade on their agricultural policies (including fisheries measures) within the framework of the "GATT Programme for Expansion of International Trade." This program, which aims at the expansion of trade in both the industrial and agricultural sectors, has come to occupy a place of considerable importance in the over-all work of GATT. It was launched in November 1958 following a meeting of Ministers. Three committees were established to operate the Program. One of these, Committee II, was entrusted with the examination of national agricultural policies of Member governments, and, in particular, the use of non-tariff measures for the protection of agriculture and their effects on the flow of international trade in agricultural products.

#### HADDOCK:

Haddock Bionomics. II--The Growth of Haddock in the North Sea and at Faroe, by Rodney Jones, Marine Research 1962 No. 2, 20 pp., illus., printed, 6s. 6d. (about 90 U. S. cents). Her Majesty's Stationery Office, 13A Castle St., Edinburgh 2, Scotland, 1962.

#### HAEMOGLOBIN POLYMORPHISM:

"Haemoglobin Polymorphism in Fishes," by Knud Sick, article, Nature, vol. 192, December 2, 1961, pp. 894-896, printed. Nature, St. Martin's Press, Inc., 175 Fifth Ave., New York 10, N. Y.

#### HAITI:

Import Tariff System of Haiti, WTIS Part 2, Operations Report No. 62-48, 2 pp., printed, 10 cents. Bureau of International Programs, U. S. Department of Commerce, Washington, D. C., September 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Covers currency, weights, and measures; bases of duty; payment of duties; preferential tariff rates; additional customs taxes; excise taxes; wharfage and storage; trade controls; consular documents; and related information. There are no customs surtaxes or exchange controls on imports into Haiti.

#### HERRING:

Bering Sea Herring and the Prospects for Its Exploitation, by V. G. Lipanov, SH211 E82 No. 379, 3 pp., processed. (Translated from the Russian, Rybnoe Khoziaistvo, vol. 37, no. 11, 1961, pp. 45-47.) Library, U. S. Department of the Interior, Washington 25, D. C.

The Biology and Fishery of the Gulf of Kandalaksha Herring, by A. P. Vilson, 15 pp., printed. (Translated from the Russian, Materialy po kompleksnomu izucheniyu Belogo Morya, vol. 1, 1957, pp. 90-104.) National Lending Library for Science and Technology, Boston Spa, Yorkshire, England.

The Biology and Fishery of the Gulf of Onega Herring, by A. A. Mikhailovskaya, 16 pp., printed. (Translated from the Russian, Materialy po kompleksnomu izucheniyu Belogo Morya, vol. 1, 1957, pp. 74-89.)

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National Lending Library for Science and Technology, Boston Spa, Yorkshire, England.

Herring Rearing. IV--Rearing Beyond the Yolk-Sac Stage, by J. H. S. Blaxter, Marine Research 1962 No. 1, 18 pp., illus., printed, 6s. 6d. (about 95 U. S. cents). Her Majesty's Stationery Office, 13A Castle St., Edinburgh 2, Scotland, 1962.

\*"Morskie ptitsy i razvedka sel'di" (Sea Birds and Reconnaissance for Herring), by D. A. Shubnikov and O. N. Shubnikova, article, Priroda, vol. 11, 1961, pp. 108-109, printed in Russian.

The Present State of the Fishery of the White Sea Herring, and Its Biology, by B. M. Tambovtsev, 30 pp., printed. (Reprinted from the Russian, Materialy po kompleksnomu izucheniyu Belogo Morya, vol. 1, 1957, pp. 44-73.) National Lending Library for Science and Technology, Boston Spa, Yorkshire, England.

\*"O promysle belomorskoj sel'di v 1960 g." (The Catch of White Sea Herring in 1960), by B. M. Tambovtsev, article, Nauchno-Tekhnika Byulleten Polyarnyi Nauchno-Issledovatel'skaia i Proekta Instituta Morskogo Rybnoe Khoziaistvo i Okeanografiia, vol. 2/3, nos. 16-17, 1961, p. 55, printed in Russian.

\*"Sel'devye i ikh ispol'zovanie v mirovom rybolovstve" (Clupeids and Their Use by the Fisheries of the World), by I. G. Yudanov, article, Voprosy Ikhtiologii, vol. 1, no. 2, 1961, pp. 221-230, printed in Russian.

"A Serological Comparison of Five Species of Atlantic Clupeoid Fishes," by Donald F. Mairs and Carl J. Sindermann (U. S. Bureau of Commercial Fisheries Biological Laboratory, Boothbay Harbor, Me.), article, The Biological Bulletin, vol. 123, no. 2, October 1962, pp. 330-343, illus., printed, single copy \$2.50. The Biological Bulletin, Marine Biological Laboratory, Woods Hole, Mass.

#### HUNGARY:

\*"Rybovodstvo v Vengerskoj Narodnoj Respublike" (Fish-Raising in the Hungarian People's Republic), by L. Pavlov, article, Rybovodstvo i Rybolovstvo, vol. 6, 1961, pp. 53-54, printed in Russian.

#### INDIA:

Fisheries of Gujarat, edited by K. V. Navathe, S. B. S. Mani, and S. V. Gokhale, 110 pp., illus., printed. Gujarat Fisheries Central Co-operative Association Ltd., c/o Director of Fisheries, Asarwa, Ahmedabad-11, India. A souvenir publication for the delegates of the first All India Conference of Fishing Gear Technologists and the ninth Meeting of the Central Fisheries Research Committee at Veraval, November 11-14, 1961, giving information on the existing fishing gear of Gujarat and mechanization in the fishing fleet. Included are articles by fisheries experts on: "Fisheries Development in Gujarat"; "Suggestions on the Development of Fisheries in India"; "Survey of the Offshore Demersal Fisheries of Andhra and Orissa Coasts, 1960"; "Fishing Gear of the Rajkot Division"; "Amilan, a Synthetic Fibre, as a Netting Twine Material"; "Need for Research on the Fishing Gear of Gujarat";

"Trends of Mechanisation in the Fishing Fleet of Gujarat"; and "Gujarat Fisheries Central Co-operative Association Ltd., Aims and Activities." A directory of firms and institutions connected with the fishing industry is also included.

#### INTERNATIONAL COMMISSIONS:

\*"XI sessiya Mezhdunarodnoi komissii po rybolovstvu v severo-zapadnoi chasti Atlanticheskogo okeana (IKNAF)" (The 11th Session of the International Commission on Northwest Atlantic Fishing--ICNAF), by A. A. Volkov, article, Rybnoe Khoziaistvo, vol. 11, 1961, pp. 82-85, printed in Russian.

#### IRELAND:

Ontaobhas Iascaigh Intire Ioncorportha (The Inland Fisheries Trust Incorporated) Annual Report, 1961-62, 28 pp., printed. Inland Fisheries Trust, 11 Westmoreland St., Dublin 2, Ireland, 1962. This report covers the period from April 1961 to March 1962. Improvement of game fishing waters in 18 counties was continued by the methods of reducing predators, rehabilitation of spawning grounds, and restocking, where feasible. Technical assistance and guidance were given to nearly 70 coarse-fishing centers as well as work on improving access to waters and stocking with suitable fish.

#### IVORY COAST:

"Developpement de la peche industrielle a Abidjan" (Development of the Commercial Fishery at Abidjan), article, La Peche Maritime, vol. 41, no. 1014, September 1962, p. 639, printed in French. La Peche Maritime, 190 Boulevard Haussmann, Paris, France.

"La situation et les perspectives de la peche industrielle en Cote d'Ivoire en 1962" (The Position and Prospects of the Commercial Fishery in the Ivory Coast in 1962), article, La Peche Maritime, vol. 41, no. 1015, October 1962, pp. 718-723, illus., printed in French. La Peche Maritime, 190 Boulevard Haussmann, Paris, France.

#### JAPAN:

Data Record of Oceanographic Observations and Exploratory Fishing, Nos. 5 and 6, 396 and 285 pp. respectively, illus., printed in Japanese and English. The Faculty of Fisheries, Hokkaido University, Hakodate, Hokkaido, Japan, March 1961, March 1962. Consists of data collected on cruises to the Western Caroline Islands, Bering Sea, North Pacific, Tsugaru Straits, South China Sea, and Okhotsk Sea during 1935-39, 1959, 1960, and 1961. Data includes information on tuna long-lining, biological characteristics of salmon, hydrographic observations, plankton, fish larvae, salmon gill-netting, trawling, and related information.

Japanese Fishing Regulations, 1959, no. 34, 831 pp., printed in Japanese. Japanese Fisheries Agency, Tokyo, Japan.

#### LOBSTER:

"Special Properties of Myosin A Extracted from Striated Muscle from the Lobster," by Yutaka Iguchi, article, Chemical Abstracts, vol. 55, May 29, 1961, 10730i, printed. Chemical Abstracts, The American Chemical Society, 1155 16th St. NW., Washington, D. C.



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## LONG ISLAND SOUND:

North Shore of Long Island Sound--Watch Hill to New Haven, Small-Craft Chart Series 116, 3 accordion-folded charts, printed, \$1.50. U. S. Coast and Geodetic Survey, New York District Office, 602 Federal Office Bldg., 90 Church St., New York 7, N. Y., October 1962. Contains three accordion-folded charts (Charts 116-1, 116-2, 116-3, tidal data, a tabulation of facilities, and other references--all bound in a new protective wrap-around cover. The three multicolored charts provide basic nautical chart coverage at the scale of 1:40,000, with a number of excellent insets at 1:20,000. Among the insets is a three-panel 13-mile stretch of the Thames River from South of New London to Norwich. Others are: Niantic Bay and River; the Connecticut River from its mouth to Hamburg Cove; Clinton Harbor; Patchogue River at Duck Island Roads; Guilford Harbor and approaches; Branford Harbor; and the Thimbles and vicinity. The tide tables giving predictions for the year are referenced to New Haven and Bridgeport, Conn. Direction and maximum strength of tidal currents at ebb and flood are indicated in red on the charts. Several important changes in the Small-Craft Series are inaugurated in Series 116. The tabulation of facilities, for example, is consolidated into a single unit and published on the inside cover-panel. (The tabulations were previously scattered among the chart panels.) This reference shows facilities available to small craft for docking, supplies, fuel, and services--all keyed to the chart by name and number. The accordion-fold is another new feature. Other references include rules of the road, whistle signals, and instructions for obtaining daily weather forecasts by marine radiotelephone. Series 116 is a companion to Series 117, North Shore of Long Island Sound--New Haven to Throgs Neck, issued in January 1962.

## MALAGASY REPUBLIC:

"Pisciculture et peche a Madagascar (1950-1960)" (Fish Culture and the Fishery in Madagascar, 1950-1960), by A. Kiener, article, La Peche Maritime, vol. 41, no. 1014, September 1962, pp. 642-645, illus., printed in French. La Peche Maritime, 190 Boulevard Haussmann, Paris, France.

## METABOLISM:

\*"Rost i dinamika zhirnosti u ryb kak prisposobitel'nye protesessy (na osnovanii eksperimental'nogo issledovaniya sazana v del'te Volgi)" (The Growth and Dynamics of Fat Accumulation in Fishes as Adaptive Processes--on the Basis of an Experimental Study of the Carp in the Volga Delta), by N. I. Chugunova, A. V. Assman, and N. P. Makarova, article, Trudy Instituta Morfologii i Zhivotnykh Akademiia Nauk SSSR, vol. 39, 1961, pp. 96-181, printed in Russian.

## MICROBES:

"Life of Terrestrial Microbes in Marine Medium--Action of Iodine Compounds," by Jean Brisou, Huguette Vargues, and Jean Cadeillan, article, Chemical Abstracts, vol. 56, March 19, 1962, 6466i, printed. Chemical Abstracts, The American Chemical Society, 1155 16th St. NW., Washington, D. C.

## MICROBIOLOGY:

"Coliform Bacteria in Sea Water and Shellfish. I--Lactose Fermentation at 35.5° and 44° C.," by A. D.

Tennant and J. E. Reid; "II--The E. C. Confirmation Test for Escherichia coli," by A. D. Tennant and others, articles, Canadian Journal of Microbiology, vol. 7, 1961, pp. 725-731; pp. 733-739, printed. Canadian Journal of Microbiology, National Research Council, Ottawa, Canada.

## MISSISSIPPI:

"Commercial Fishing in Mississippi," by C. A. Schutz, article, Mississippi Game and Fish, vol. 24, no. 12, July-August 1962, p. 10, printed. Game and Fish Commission, Box 451, Jackson, Miss. During the 1959-60 season, 1,626 commercial fishing licenses were issued in Mississippi, of which 343 were to regular fishermen and 870 to part-time fishermen. Landings totaled 5,996,000 pounds with a value of \$989,980. About 90 percent of the catch consisted of buffalofish, carp, and catfish. Drum, paddlefish, quillback, and sturgeon composed the remainder.

"Rules and Regulations on Commercial Fishing in Miss.," article, Mississippi Game and Fish, vol. 24, no. 12, July-August 1962, pp. 13, 14, printed. Game and Fish Commission, Box 451, Jackson, Miss. Covers open seasons for commercial fishing; legal tackle--trot lines, snag lines, set hooks, hoop or barrel nets, gill and trammel nets, seines, minnow seines and traps, harpoon rod and longbow, and hand grabbing; and size and possession limits.

## MOROCCO:

"La production de la peche marocaine a augmente de 20% en 1961" (Moroccan Fishery Production Increased by 20 percent in 1961), article, La Peche Maritime, vol. 41, no. 1014, September 1962, pp. 637-638, illus., printed in French. La Peche Maritime, 190 Boulevard Haussmann, Paris, France.

## NETHERLANDS ANTILLES:

Establishing a Business and Investing in the Netherlands Antilles, WTIS Part 1, Economic Report No. 62-69, 16 pp., printed, 15 cents. Bureau of International Programs, U. S. Department of Commerce, Washington, D. C., September 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Discusses general political and legal framework of the Netherlands Antilles, treatment of aliens, organizing a business, taxation, investment incentives, and development programs. It also discusses exchange controls, trade controls, labor and social legislation, utilities and space costs, transportation and communications, general costs and market considerations, and patents and trademarks.

## NETS:

"The Use and Selectivity of Small-Mesh Gill Nets at Brooks Lake Alaska," by William R. Heard (U. S. Bureau of Commercial Fisheries Biological Laboratory, Auke Bay, Alaska), article, Transactions of the American Fisheries Society, vol. 91, no. 3, 1962, pp. 263-268, printed. Secretary, American Fisheries Society, 233 Broadway, New York, N. Y., P. O. Box 483, McLean, Va.

## NORTH CAROLINA:

"An Annotated Checklist of the North Carolina Bay Lakes Fishes," by Darrell E. Louder (North Carolina Wildlife Research Commission, Raleigh, N. C.), article, Journal of the Elisha Mitchell Scientific

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Society, vol. 78, no. 1, 1962, pp. 68-73, printed. Elisha Mitchell Scientific Society, University of North Carolina, Chapel Hill, N. C.

#### NUTRITION:

"Nutrition of Salmonoid Fishes. X--Quantitative Threonine Requirements of Chinook Salmon at Two Water Temperatures," by Donald C. De Long, John E. Halver, and Edwin T. Mertz, article, Journal of Nutrition, vol. 76, February 1962, pp. 174-178, printed. American Institute of Nutrition, 36th St. at Spruce, Philadelphia 4, Pa.

#### OCEANOGRAPHY:

International Indian Ocean Expedition, Lourenco Marques Regional Meeting, April 30-May 2, 1962, 168 pp., illus., processed. Instituto de Investigacao Cientifica, Caixa Postal 1780, Lourenco Marques, Mozambique, 1962. Contains a list of participants; provisional agenda; discussions, conclusions, recommendations, and agenda of the various working groups; minutes of meetings; final recommendations; and programs and informative documents.

#### PARASITES:

"Biology and Control of the Pike-Whitefish Parasitic Worm, Triaenophorus crassus, in Canada," by G. H. Lawler, article, Progress Reports of the Biological Station and the Technological Unit, No. 1, September 1959, pp. 31-37, printed. Fisheries Research Board of Canada, Biological Station, London, Ontario, Canada.

Development of Parasitofauna in Fishes of New Water Reservoirs, by O. N. Bauer, OTS 61-31053, PL-480, 7 pp., processed. (Translated from the Russian, Trudy Problemykh i Tematicheskikh Soveshchanii ZIN, no. 4, 1954, pp. 47-53.) Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C.

"Geographic Distribution and Incidence of Infection of Cryptobia (Hemoflagellate) from Marine Fishes," by R. G. Strout, article, Journal of Parasitology, vol. 48, no. 2, section 2, 1962, pp. 31-32, printed. American Society of Parasitologists, Colorado College, Colorado Springs, Colo.

#### PHYSIOLOGY:

Ekologicheskaja Fiziologija Ryb. I. (Ecological Physiology of Fish. Part I), by N. S. Stroganov, R 24849, printed in Russian. Loan copies available from National Lending Library for Science and Technology, Boston Spa, Yorkshire, England, 1962.

#### PLAICE:

La Transplantation des Plies en Mer du Nord (The Transplantation of the Plaice in the North Sea), by E. Postel, 7 pp., illus., printed in French. (Reprinted from Science et Nature, no. 52, July-August 1962.) Office de la Recherche Scientifique et Technique Outre-Mer, Service Central de Documentation, 80, Route d'Aulnay, Bondy (Seine), France.

#### PLANKTON:

"Studying the Ever-Changing Sea," by Alister Hardy, article, Nature, vol. 196, no. 4851, October 20, 1962, pp. 207-210, illus., printed, 3s. (about 42 U. S.

cents). Nature, St. Martin's Press, Inc., 175 Fifth Ave., New York 10, N. Y.

#### POLAND:

Fulfillment of 1961 Fishing Industry Plan, by Franciszek Golebiowski, JPRS 15245, 10 pp, processed. (Translated from the Polish, Gospodarka Rybna, vol. 14, no. 3, May-June 1962, pp. 6-10.) Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C.

Trends in the Development of Production in the Fishing Industry, by Stefan Dzierzanowski, JPRS 15245, 7 pp., processed. (Translated from the Polish, Gospodarka Rybna, vol. 14, no. 3, May-June 1962, pp. 3-6.) Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C.

#### POLLUTION:

"Effects of Kraft Pulp Mill Wastes on Fish." by Masaru Fujiya, article, Chemical Abstracts, vol. 56, February 5, 1962, 2776c, printed. Chemical Abstracts, The American Chemical Society, 1155 16th St. NW., Washington, D. C.

"Measurements of Toxicity of Tannery and Textile Wastes and Their Components to Fish by Bioassays," by A. David and P. Roy, article, Chemical Abstracts, vol. 56, April 30, 1962, 10729f, printed. Chemical Abstracts, The American Chemical Society, 1155 16th St. NW., Washington, D. C.

#### PORTUGAL:

"La Industria Conservera Portuguesa en 1961" (The Portuguese Canning Industry in 1961), article, Industrias Pesqueras, vol. 36, no. 848, August 15, 1962, p. 299, printed in Spanish. Industrias Pesqueras, Policarpo Sanz, 21-2º, Vigo, Spain.

Licensing and Exchange Controls--Portugal, WTIS Part 2, Operations Report No. 62-53, 4 pp., printed, 10 cents. Bureau of International Programs, U. S. Department of Commerce, Washington, D. C., September 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Discusses Portuguese import controls, import licensing, exchange control on imports, and export controls. Also discusses United States export and import controls to Portugal and related information.

#### PROTEIN:

"Alimentary Value of Fish Proteins: Effect of Storage on Canned Products," by M. Th. Lanteaume, P. Girard, and J. Guzenec, article, Chemical Abstracts, vol. 54, March 25, 1960, 6994b, printed. Chemical Abstracts, The American Chemical Society, 1155 16th St. NW., Washington, D. C.

"Changes in Protein Specificity Determined by Protective Enzyme Test During Embryonic Development of the Sea Urchin and Fresh-Water Fish," by J. Ishida, article, Chemical Abstracts, vol. 55, August 21, 1961, 16612i, printed. Chemical Abstracts, The American Chemical Society, 1155 16th St. NW., Washington, D. C.

"Influence of Different Lethal Conditions Upon Fish Muscle Proteins. III--Variation in Viscosity of Myosins Extracted From Fishes Killed in Different

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Ways," by Masao Migita and Taneko Suzuki, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 27, August 1961, pp. 774-784, printed, Japanese Society of Scientific Fisheries, 6-chome, Shiba-kaigandori, Minato-ku, Tokyo, Japan.

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#### SHEEFISH:

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a delicious food fish and has considerable potential both for a commercial and sport fishery.

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"The Nutritive Value of Bombay Prawns. II--Chemical Composition and Nutritional Constituents of Penaeid Prawns," by Fatema S. Shaikhmahmud and N. G. Magar, article, Chemical Abstracts, vol. 55, October 30, 1961, 22647h, printed. Chemical Abstracts, The American Chemical Society, 1155 16th St. NW., Washington, D. C.

#### SIERRA LEONE:

Report on Fisheries, 1961, 12 pp., printed, 1s. 6d. (about 20 U. S. cents). Government Bookshop, Water St., Freetown, Sierra Leone, 1962. Discusses accomplishments of the newly organized Fisheries Department during 1961. Covers research in fish preservation, distribution, and fishing activities of trawlers; a new patrol and research vessel; gear research; the Fisheries Loans and Credit Scheme; and extension of tuna-handling facilities. Also includes statistical tables showing fishery landings by months and by species, register of mechanized fishing vessels, and tuna landings.

#### SMALL BUSINESS MANAGEMENT:

New Depreciation Guidelines--Realistic and Flexible, by Mortimer M. Caplin, Management Aid 147, 4 pp., processed. Small Business Administration, Washington 25, D. C., November 1962. Discusses the new Depreciation Guidelines and Rules which the U. S. Treasury Department issued July 12, 1962. Treasury officials say that the new schedules automatically permit more rapid and more realistic depreciation than was taken in the previous 20 years on 70 to 80 percent of the machinery and equipment used by American businessmen. Examples are given of how the guidelines apply. The author states that, "As in other areas of management, unless an owner-manager is a tax expert, he may want to get professional help with his depreciation problems."

Small Business Use of Trade Association Programs, by Martin L. King, Donald W. Hill, and Katharine E. Luning, Management Research Summary, 4 pp., processed. Small Business Administration, Washington 25, D. C., September 1962. Most small businessmen do not make good use of trade association services that require a working knowledge of business-management principles; require that the businessmen take the initiative in obtaining the service; are based on a business philosophy they do not understand or do not accept; or do not concern immediate, specific problems. The report concludes that trade associations need to reevaluate their objectives, organization, and programs.

#### SOUTH AFRICA REPUBLIC:

"Fishing Industry: A Tenfold Growth in Twenty Years," by Marcus Arkin (Lecturer in Economic

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History, University of Cape Town, Cape Town, South Africa Republic), article, Economic Opinion, no. 10, June 1962, pp. 31-36, illus., printed. Netherlands Bank of South Africa, Ltd., P. O. Box 1144, Johannesburg, South Africa Republic. Discusses the growth of the fisheries industry in Cape Province, South Africa Republic. Covers the Benguela Current, bringing rich fisheries resources; increased demand for fishery products, increase of skipper-owned vessels; overseas marketing of spiny lobster, pilchards, and maasbanker; and possibilities of developing domestic markets.

#### SOUTH DAKOTA:

"Fishes of South Dakota," by Reeve M. Bailey and Marvin O. Allum (South Dakota State College, Brookings, S. Dak.), article, Miscellaneous Publications Museum of Zoology, University of Michigan, vol. 119, 1962, pp. 1-131, illus., printed. Museum of Zoology, University of Michigan, Ann Arbor, Mich.

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(Africa Occidental)" (Capture of a Harriotta raleighana Goode and Bean, 1894, in Waters Off Cape Blanco--West Africa), by Julio Rodriguez-Roda.

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"Successful First Fishing Trips for Stern Trawler Hekktind," article, Norwegian Fishing and Maritime News, vol. 8, no. 2, 1961, pp. 8, 48, printed. Norwegian Fishing and Maritime News, Torolf Holme, P. O. Box 740, Slottsgt. 3, Bergen, Norway.

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"Sexual Maturity as Determined from Ovum Diameters in Striped Bass from North Carolina," by Robert M. Lewis (U. S. Bureau of Commercial Fisheries Biological Laboratory, Beaufort, N. C.), article, Transactions of the American Fisheries Society, vol. 91, no. 3, 1962, pp. 279-282, printed. Secretary, American Fisheries Society, P. O. Box 483, McLean, Va.

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The Trade of China, 1961 (Taiwan), Statistical Series No. 1, 422 pp., illus., printed in Chinese and English. Statistical Department, Inspectorate General of Customs, Taipei, Taiwan, 1962. Contains data on Taiwan's foreign trade, including imports and exports of fishery products.

#### THAILAND:

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printed. Bureau of Hygiene and Tropical Diseases, Keppel St., Gower St., London WC1, England.

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#### 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, Washington 25, D. C., or from Department of Commerce field offices at \$1 each.

Oils (Animal, Fish, Vegetable)--Importers, Dealers, Producers, Refiners, Exporters--Belgium, 16 pp., August 1962. Lists the names and addresses, size of firms, and types of products handled by each firm. Includes firms dealing in fish and whale oils.

#### TRAWLER-FREEZER:

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#### TRAWL NETS:

\*"Model Experiment on the Japanese Two-Boat-Type Trawl Net. II--Model Experiment on S-I Type Net Devised Newly, and Consideration Upon the Efficiency of the New Device Connecting with the Behavior of the Object Fishes," by Takeo Taniguchi, article, Journal of the Shimonoseki College of Fisheries, vol. 11, no. 2, 1961, pp. 305-331, illus., printed in Japanese with English summary.

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Illustrated Dictionary of Tropical Fishes, by Hans Frey, 768 pp., illus., printed, \$7.95. T. F. H. Publications Inc., Jersey City, N. J., 1961.

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\*"Raduzhnaya forel' v Odesskoi oblasti" (The Steelhead Trout in Odessa Oblast), by E. Manuilenko, article, Rybovodstvo i Rybolovstvo, vol. 6, 1961, pp. 26-27, printed in Russian.

#### TUNA:

"The Concentration of Myoglobin and Hemoglobin in Tuna Flesh," by W. Duane Brown, article, Journal of Food Science, vol. 27, January-February 1962, pp. 26-28, printed. Institute of Food Technologists, 510-522 N. Hickory St., Champaign, Ill.

"Las Conservas Norteamericanas de Atun" (North American Canned Tuna), article, Peces y Conservas, vol. 2, no. 14, August-September 1962, pp. 7-9, printed in Spanish. Peces y Conservas, Carrera 19-A, No. 12-90, Bogota, Colombia.

"Sea Temperatures and the Availability of Albacore Off the Coasts of Oregon and Washington," by James H. Johnson (U. S. Bureau of Commercial Fisheries Biological Laboratory, San Diego, Calif.), article, Transactions of the American Fisheries Society, vol. 91, no. 3, 1962, pp. 269-274, printed. Secretary, American Fisheries Society, P. O. Box 483, McLean, Va.

#### TUNA AND SARDINES:

"Bilan de la campagne du thon et de la sardine" (Status of the Tuna and Sardine Season), article, La Peche Maritime, vol. 41, no. 1015, October 1962, pp. 707-709, printed in French. La Peche Maritime, 190 Boulevard Haussmann, Paris, France.

#### UNITED KINGDOM:

Grimsby--The World's Premier Fishing Port and Frozen Food Centre, 156 pp., illus., printed. The Grimsby Fishing Vessel Owners' Association, Fish Dock Rd., Grimsby, England, 1961. A handbook covering the history of Grimsby, the fishing industry and how it works, the Grimsby Fishing Vessel Owners Association, welfare work, development of the fishing vessel, development of fishing gear, electronics and radio, fishermen of Grimsby, sales, fish merchandising, processing technique, and quick-freezing and frozen foods. Also covers cold storage; cod-liver oil in modern nutrition; white fish meal; shipbuilding, repairing, and engineering; related trades; coal and oil bunkering; research; chart of the sea fishing industries; meteorological services; The White Fish Authority; fish facts; and dock accommodation. Also contains a plan of docks and map of fishing grounds and a diagram of a trawler and seine net vessel.

Torry Research Station Annual Report, 1961, on the Handling and Preservation of Fish and Fish Products, 48 pp., illus., printed, 4s. (80 U. S. cents postpaid). Department of Scientific and Industrial



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Research, State House, High Holborn, London WC1, England, 1962. (For sale by British Information Services, 45 Rockefeller Plaza, New York 20, N. Y.) Describes accomplishments in research during 1961 on improvement in handling, treatment, and quality of wet fish; freezing and cold storage; smoke curing; salting; canning; and fishery byproducts. Also includes work on culture media for halophiles, metabolism of marine bacteria, chemical changes in sterile and inoculated fish muscle, hydration and dehydration of proteins, and dielectric properties of cod muscle, and related subjects. Also contains a list of reports and papers published during 1961 on the handling and preservation of fish and fish products.

#### U.S.S.R.:

\*"Nekotorye puti uvelicheniya ulovov ryby v morskikh vodoemov" (Some Ways of Increasing the Catch of Fish in Seas of the U. S. S. R.), by T. S. Rass, article, Voprosy Iktiologii, vol. 1, no. 4, pp. 622-639, printed in Russian. On the basis of many years of study of data from the literature and from the statistics of the fishing industry, the possibility was shown of increasing the catches in the seas of the Soviet Far East and adjoining waters of the Pacific Ocean of Theragra chalcogramma, Cololabis saira, Pleurogrammus monopterygius, and P. azonus. By developing a fishery for these species, it will be possible to obtain annually an additional 4.5 to 6 million metric centners of fish, which is half again as much as the present catch in this area of the U.S.S.R. The author gives reasons for the practical expediency and the biogeographical possibility of increasing the numbers of commercially important fish in some of the seas of the U.S.S.R. by introducing commercially valuable species of fish. He considers it possible to introduce P. monopterygius and Lepidopsetta bilineata into the Barents Sea and Gadus callarias and Pseudosciaena polyactis into the Black Sea.

Pervichnaia produktsiia morei i vnutrennikh vod (Primary Production of Marine and Inland Waters), #R 24864, printed in Russian. Loan copies available from National Lending Library for Science and Technology, Boston Spa, Yorkshire, England, 1961.

\*"Rasselenie sudaka po ozeram Karelii" (Introducing Pike Perch into the Karelian Lakes), by L. A. Kuderskii, article, Priroda, vol. 11, 1961, pp. 109-111, printed in Russian.

\*"O ratsional'nom ispol'zovanii kormovykh zapasov Volgi" (Efficient Use of the Stocks of Fish Food in the Volga), by P. N. Khoroshko, article, Rybnoe Khoziaistvo, no. 4, 1961, pp. 22-23, printed in Russian.

\*"Rybnoe khoziaistvo Orenburgskoi oblasti" (Commercial Fishing in Orenburg Oblast), by G. Mikhailchenkov and K. Sadlaev, article, Rybovodstvo i Rybolovstvo, vol. 6, 1961, pp. 18-19, printed in Russian.

\*"Stoletie biologicheskikh rybokhoziaistvennykh issledovaniy v nashei strane" (The Centennial of Biological Commercial Fishing Investigations in Our

Country-USSR), by A. A. Svetovidova, article, Voprosy Iktiologii, vol. 1, no. 3, 1961, p. 591, printed in Russian.

\*"Ves molodi sudaka, vypuskaemoi iz donskikh nerestovo-vyrastnykh khoziaistv" (The Weight of Young Pike Perch Released from the Don River Fish Hatcheries), by N. N. Zhdanova, article, Rybnoe Khoziaistvo, vol. 10, 1961, pp. 19-22, printed in Russian.

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Import Tariff System of Viet-Nam, WTIS Part 2, Operations Report No. 62-52, 2 pp., printed, 10 cents. Bureau of International Programs, U. S. Department of Commerce, Washington, D. C., September 1962. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Covers units of currency, weights, and measures; basis of duty assessment; method of payment of duty; duties--preferential treatment; customs surtaxes; sales and other internal taxes; documentation and fees; trade restrictions; and related information.

#### WHALE:

"The Optical Rotatory Dispersion of Right-Handed Helices in Sperm Whale Myoglobin," by Peter J. Urnes, K. Imahori, and Paul Doty, article, Chemical Abstracts, vol. 56, March 19, 1962, 6342b, printed. Chemical Abstracts, The American Chemical Society, 1155 16th St. NW., Washington, D. C.

\*"O prodolzhitel'nosti zhizni finvalov i periodike ikh razmnozheniya" (The Longevity of Fin Whales and the Periodicity of Their Reproduction), by V. A. Zemskii, article, Trudy Soveshchaniy Iktiologii i Komissiya Akademii Nauk SSSR, vol. 12, 1961, pp. 60-67, printed in Russian.

#### WHITEFISH:

\*"O rezul'tatkakh akklimatizatsii i usloviyakh razmnozheniya sigov v Rybinskom vodokhranilishche" (The Results of Acclimatization and the Conditions for Reproduction of Whitefish in the Rybinsk Reservoir), by A. G. Poddubnyi and V. A. Sakharova, article, Byulleten Instituta Biologii Vodokhranilishch Akademii Nauk SSSR, vol. 10, 1961, pp. 42-45, printed in Russian.

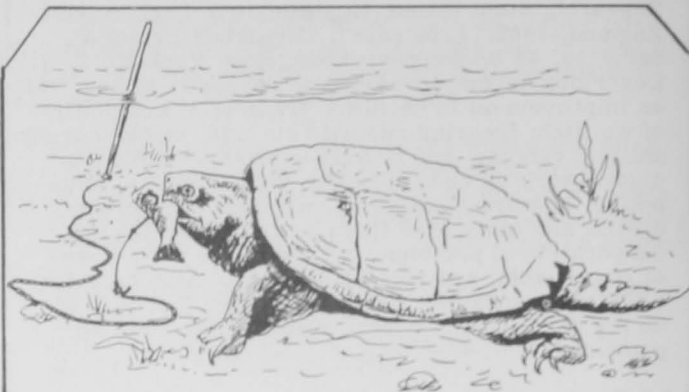
\*"Sigovye v Khar'kovskoi oblasti" (Coregonids in Khar'kov Oblast), by G. Shkorbatov and G. Kudryavtseva, article, Rybovodstvo i Rybolovstvo, vol. 5, 1961, p. 20, printed in Russian.

#### WHITEFISH AND GRAYLING:

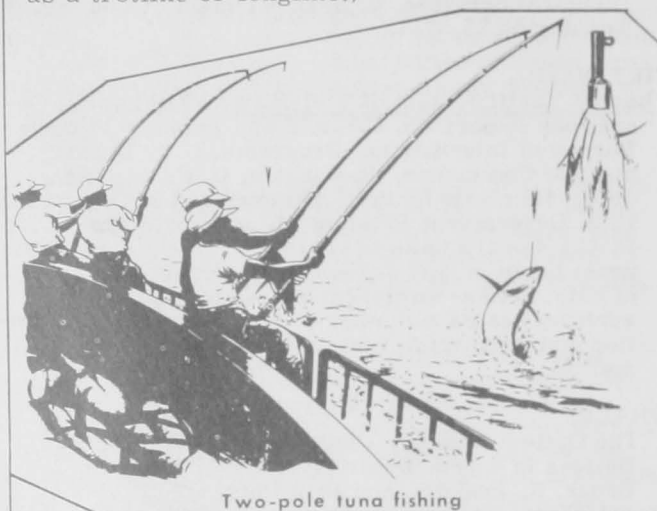
\*"Tsitofiziologicheskii analiz vnutrividnoi differentsirovki omulei i khariusov ozera baikal" (Cytophysiological Analysis of Intraspecies Differentiation in the Whitefish and Grayling of Lake Baikal), by B. P. Ushakov, A. N. Vinogradov, and A. A. Kusakina, article, Zhurnal Obshchei Biologii, vol. 23, no. 1, 1962, pp. 56-63, printed in Russian.

## HANDLINES

A handline is a single line with one or more hooks held or attended by one person. In some cases, the line is attached to a pole. In the West Coast tuna fishery, a single barless hook is attached to from one to four lines, depending on the size of the fish being taken. Each line is fastened to an individual pole attended by one person. A single line, with one or more baited hooks, attached to a single float, jug, or stake, is likewise a handline. When used in this latter fashion, it requires only periodic attention. (This type of gear has been incorrectly classified in some states as a trotline or longline.)



Handline



Two-pole tuna fishing



Handline

Note: Excerpt from Circular 109, Commercial Fishing Gear of the United States, for sale from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., single copy, 40 cents.



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Cover page--Public Relations Office, Port of Seattle, Wash.; pp. 21 (fig. 1), 22 (fig. 2)--Alaska Dept. of Fish and Game; p. 22--Chas. F. Connelley, Jr., Juneau, Alaska; pp. 34 (fig. 1), 36, & 77 (fig. 2)--F. B. Sanford and C. F. Lee; pp. 39 & 40--John Shea; pp. 49 & 50--Sheldon Dobkin; p. 51 (fig. 2)--J. Pileggi; p. 56 (right)--L. C. Ringhaver, Diesel Engine Sales Co., St. Augustine, Fla.; p. 57--Robert K. Brigham; p. 62 (fig. 1)--Fishery Technological Laboratory, E. Boston, Mass. and (fig. 2)--Andrew L. Pinto; pp. 67 & 78 (fig. 3) and 76 (fig. 4)--FAO; p. 75 (fig. 2)--Walter H. Stolting; pp. 76 (figs. 3, 6, & 7) Patrick Morin, FAO and fig. 5, and 108--J. O. Traung, FAO; pp. 77 (fig. 1), 111 (figs. 1 & 2)--Milton Lindner, U. S. Embassy, Mexico; p. 78 (fig. 2)--Jack W. Schott; p. 83 (figs. 1 & 2)--E. R. Pariser; pp. 84 (fig. 1), 85 (fig. 2), and 86 (fig. 3)--Turistforeningen for Danmarks Billed, Arkiv; pp. 102 & 104--Consulate General of Japan, N. Y.; p. 112 (figs. 1 & 2)--United Nations; pp. 114 & 115--Albert C. Jensen; pp. 117 (fig. 2) and 118 (fig. 3)--Office of Information, Commission on Rural Reconstruction, Taiwan; and p. 118 (fig. 4)--Information Office, FAO Mutual Security Mission to China.