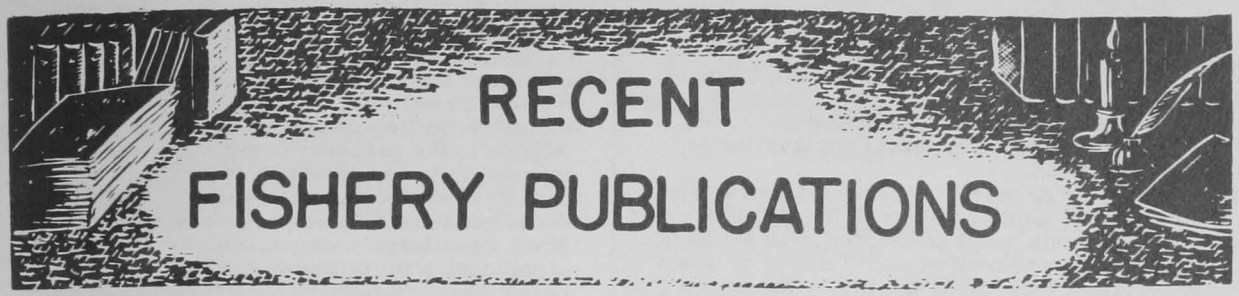

FISH AND WILDLIFE SERVICE PUBLICATIONS

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

CFS - CURRENT FISHERY STATISTICS OF THE UNITED STATES AND ALASKA.
MDL - MARKET DEVELOPMENT LISTS.
SL - STATISTICAL SECTION LISTS OF DEALERS IN AND PRODUCERS OF FISHERY PRODUCTS AND BYPRODUCTS.
FL - FISHERY LEAFLETS.
SSR. - FISH.- SPECIAL SCIENTIFIC REPORTS--FISHERIES (LIMITED DISTRIBUTION).
SEP. - SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.

Number Title

CFS-1281 - New York Landings, 1955 Annual Summary, 9 pp.
CFS-1298 - Maine Landings, 1955 Annual Summary (by County and Gear), 10 pp.
CFS-1309 - Maine Landings, 1955 Annual Summary (by Months), 10 pp.
CFS-1312 - Massachusetts Landings, 1955 Annual Summary (by Ports), 16 pp.
CFS-1313 - Alaska Fisheries, 1955 Annual Summary, 6 pp.
CFS-1314 - Fish Meal & Oil, Mar. 1956, 2 pp.
CFS-1316 - Rhode Island Landings, 1955 Annual Summary, 6 pp.
CFS-1318 - New York Landings, Feb. 1956, 4 pp.
CFS-1323 - California Landings, Jan. 1956, 4 pp.
CFS-1324 - Florida Landings, Jan. 1956, 6 pp.
CFS-1325 - New Jersey Landings, Mar. 1956, 3 pp.
CFS-1326 - North Carolina Landings, Mar. 1956, 2 pp.
CFS-1327 - Georgia Landings, Mar. 1956, 2 pp.
CFS-1328 - Frozen Fish Report, April 1956, 8 pp.
CFS-1329 - Texas Landings, Mar. 1956, 3 pp.
CFS-1330 - New York Landings, Mar. 1956, 4 pp.
CFS-1331 - Florida Landings, 1955 Annual Summary, 10 pp.
CFS-1333 - Rhode Island Landings, Mar. 1956, 3 pp.
CFS-1335 - Middle Atlantic Fisheries, 1954 Annual Summary, 5 pp.
CFS-1336 - Florida Landings, Feb. 1956, 6 pp.
CFS-1338 - Fish Meal & Oil, 1955 Annual Summary, 4 pp.
CFS-1341 - California Landings, Feb. 1956, 4 pp.
CFS-1342 - Alabama Landings, Mar. 1956, 2 pp.
CFS-1343 - Ohio Landings, April 1956, 2 pp.
CFS-1344 - New England Fisheries, 1954 Annual Summary, 7 pp.
CFS-1345 - Fish Meal & Oil, April 1956, 2 pp.
CFS-1346 - Texas Landings, April 1956, 4 pp.
CFS-1347 - New Jersey Landings, Apr. 1956, 4 pp.
CFS-1348 - Georgia Landings, April 1956, 2 pp.
CFS-1351 - North Carolina Landings, Apr. 1956 3 pp.
CFS-1352 - New York Landings, April 1956, 4 pp.
CFS-1353 - Rhode Island Landings, Apr. 1956, 3 pp.
CFS-1354 - Maine Landings, April 1956, 3 pp.
CFS-1355 - Mississippi Landings, Apr. 1956, 2 pp.
CFS-1356 - Alabama Landings, Apr. 1956, 2 pp.

MDL- 2 - Michigan Locker Plants, Apr. 1956, 8 pp.
MDL- 3 - Tennessee Locker Plants, May 1956, 4 pp.
MDL- 8 - Montana Locker Plants, Apr. 1956, 7 pp.
MDL- 9 - Oklahoma Locker Plants, May 1956, 8 pp.
MDL-12 - Texas Locker Plants, May 1956, 17 pp.
MDL-13 - New York Locker Plants, May 1956, 7 pp.
MDL-16 - N. Dak. Locker Plants, May 1956, 7 pp.
MDL-19 - Washington Locker Plants, May 1956, 14 pp.
MDL-21 - New Jersey Locker Plants, May 1956, 3 pp.
MDL-23 - Rhode Island Locker Plants, May 1956, 1 p.
MDL-24 - Ohio Locker Plants, May 1956, 11 pp.
MDL-26 - Colorado Locker Plants, May 1956, 6 pp.
MDL-28 - Vermont Locker Plants, May 1956, 2 pp.
MDL-29 - Virginia Locker Plants, 4 pp.
MDL-30 - North Carolina Locker Plants, May 1956, 5 pp.
MDL-31 - Oregon Locker Plants, May 1956, 11 pp.
MDL-34 - Missouri Locker Plants, May 1956, 15 pp.
MDL-43 - South Carolina Locker Plants, May 1956 3 pp.
MDL-44 - South Dakota Locker Plants, May 1956, 8 pp.
MDL-45 - Utah Locker Plants, May 1956, 4 pp.
MDL-46 - West Virginia Locker Plants, May 1956, 2 pp.

SL - 6 - Wholesale Dealers in Fishery Products, New York Coastal Area, 1955, 6 pp.

FL-426 - Household Consumer Preferences for Breaded Shrimp & Breaded Fish Sticks. Part 3--Summary by Income Groups, Household Size, Homemaker Age Groups, and Occupation, 155 pp., illus., processed, Feb. 1956.
FL-429 - Factors to be Considered in the Freezing and Cold Storage of Fishery Products, 66 pp. (Part 3).
FL-430 - Refrigeration of Fish, 125 pp. (Part 4).

SSR-Fish. No. 164 - Mid-Pacific Oceanography, Part VII, Hawaiian Offshore Waters, September 1952-August 1953, by Gunter R. Seckel, 257 pp., illus., processed, November 1955.

SSR-Fish. No. 170 - Use of Infrared Radiation in the Study of Fish Behavior, by Rea E. Duncan, 20 pp., illus., processed, March 1956.

SSR-Fish. No. 171 - January to April Distribution of the Common Shrimp on the South Atlantic Continental Shelf, by William W. Anderson, 17 pp., illus., processed, April 1956.

SSR-Fish. No. 172 - Effect of Sound Waves on Young Salmon, by Harvey L. Moore and

H. William Newman, 22 pp., illus., processed, April 1956.

Sep. No. 441 - Composition of Southern Oysters.
Sep. No. 442 - Exploratory Fishing Vessel George M. Bowers: Part I - Description of Vessel, Part II - Vessel's Electrical and Auxiliary-Drive Systems.
Sep. No. 443 - Research in Service Laboratories (July 1956): Contains these short articles--"Storage Tests on Frozen Fried Fish Sticks Prepared from Pacific Cod," "Effect of Raw Material on Tuna-Meal Quality," "Research Programs Discussed at Pacific Fisheries Technologists Conference," "Progress in Research on Southern Oysters," "New Techniques for Freezing and Storing North Atlantic Lobsters."

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

Fishery Statistics of the United States 1953, by A. W. Anderson and E. A. Power, Statistical Digest No. 36, 340 pp., illus., printed, $1.50, 1956. This is the latest in a series of annual statistical reports on the fisheries of the United States, Alaska, and Hawaii, which contains data on the catch and ex-vessel value of fishery products, employment in the fisheries, quantity of gear operated, the number of fishing craft employed in the capture of fishery products, and certain information on the production and value of manufactured fishery products and byproducts. The statistical surveys conducted during 1954 for 1953 data were conducted in all sections of the United States except in the Mississippi River States which were last canvassed in 1950. The total catch of fishery products totaled 4,467,960,000 pounds, valued at $352,275,000 ex-vessel--an increase of 1 percent in quantity as compared with 1952. Had there not been a spectacular gain in the production of menhaden during the year, the catch would have been far below that of 1952. Menhaden production off the Atlantic and Gulf States during 1953 again broke all records with the catch of this item soaring to nearly 1.7 billion pounds. This was a gain of over 312 million pounds above the production of the previous year and the largest catch of this species in history. Shrimp was again the most valuable single item taken by domestic fishermen. The catch of these shellfish totaled a record 260 million pounds valued at nearly $77 million ex-vessel, the highest annual value ever recorded in a United States fishery. Major fisheries recording noticeable production decreases during 1953 were ocean perch, salmon, tuna, sea herring, Pacific sardines, mackerel, and oysters. Price disputes in several of the more productive New England ports contributed greatly to the marked decline in the ocean perch fishery. The noticeable drop in Alaska salmon production during 1953 was of great concern to packers and conservationists alike. The one bright spot in the otherwise dismal salmon picture was the 23-million-pound rise in salmon production in the Pacific Coast States during the year. The 1953 Pacific sardine fishery in California was even a more dismal failure than the 1952 season since a total of only 9 million pounds were taken during the year compared with 14 million pounds reported in this fishery during the previous year. The Pacific Coast mackerel fishery also continued its steady decline with the catch of this item amounting to less than 8 million pounds compared with nearly 21 million pounds in 1952. However, the 86-million-pound catch of anchovies in California was the largest in history. The pack of canned fishery products in the United States, Alaska, Hawaii, and Puerto Rico in 1953 amounted to 792 million pounds valued at nearly $307 million to the packers--a decrease of 3 percent in quantity but an increase of less than one percent in value compared with 1952. Sharply reduced packs of salmon and Pacific Coast sardines were largely responsible for the volume of the pack total falling below that of several recent years; however, record packs of tuna and anchovies were canned during the year. The production of fishery byproducts in the United States and Alaska during 1953 was valued at over $74 million--9 percent more than the value for 1952. Lewes, Del., was the nation's leading fishing port poundagewise during 1953, with receipts of approximately 363 million pounds consisting almost entirely of menhaden. San Pedro, Calif., was in second place with 329 million pounds, mostly tuna, followed by Port Monmouth, N. J., with 198 million pounds of fishery products, comprised mostly of menhaden. Fishery statistics of the United States and Alaska are compiled and published annually to make available information on both the economic and biological aspects of the domestic commercial fisheries. Data on the economic aspects are necessary to persons engaged in the commercial fishery and to governmental agencies concerned with its regulation and protection. From the biological standpoint, these data are important to sound fishery management in providing detailed information on fluctuations in the commercial catch by species, locality, gear, and on the type of gear and craft operated. They assist conservation agencies in regulating the commercial fisheries so as to produce maximum yields without depletion.

Laws and Regulations for Protection of the Commercial Fisheries of Alaska, 1956, Regulatory Announcement 48, 79 pp., printed, April 1956, 25 cents. This publication is divided into two sections. One section contains laws for the protection of the commercial fisheries of Alaska and related information, including the authority for regulation, rules regarding oyster culture, Bristol Bay residence requirements, regulation of salmon escapement, fishing-gear restrictions, exceptions to weekly closed seasons, etc. The second section contains all the regulations for the protection of the commercial fisheries of Alaska amended to date and which became effective April 21, 1956. These 1956 regulations supersede the regulations published in Regulatory Announcement 45 which became effective February 19, 1955.

Method of Evaluating Temperature in Lakes with Description of Thermal Characteristics of Convict Lake, California, by Norman Reimers and Bobby D. Combs, Fishery Bulletin 105 (From Fishery Bulletin of the Fish and Wildlife Service, vol. 56), 22 pp., illus., printed, 20 cents, 1956.

THE FOLLOWING SERVICE PUBLICATIONS ARE AVAILABLE ONLY FROM THE SPECIFIC OFFICE MENTIONED IN THE REVIEW.

California Fishery Products Monthly Summary, April 1956, 10 pp.; California Fishery Products Monthly Summary, May 1956, 10 pp. (Market News Service, U. S. Fish and Wildlife Service,

Post Office Bldg., San Pedro, Calif.) California cannery receipts of raw tuna and tunalike fish, herring, and squid; pack of canned tuna, mackerel, herring, anchovies, and squid; market fish receipts at San Pedro.

Gulf Monthly Landings, Production, and Shipments of Fishery Products, April 1956, 5 pp., Gulf Monthly Landings, Production, and Shipments of Fishery Products, May 1956, 5 pp. (Market News Service, U. S. Fish and Wildlife Service, 609-611 Federal Bldg., New Orleans 12, La.) Gulf States shrimp, oyster, finfish, and blue crab landings; crab meat production; LCL express shipments from New Orleans; and wholesale prices of fish and shellfish on the New Orleans French Market; for the month indicated.

(New York) Monthly Summary - April 1956 - Receipts of Fishery Products at the New York City Wholesale Salt-Water Market, 4 pp. (Market News Service, U. S. Fish and Wildlife Service, 155 John St., New York 38, N. Y.) Receipts in the salt-water section of the Fulton Fish Market by species and by states and provinces for the month indicated.

Monthly Summary of Fishery Products Production in Selected Areas of Virginia, North Carolina, and Maryland, May 1956, 4 pp. (Market News Service, U. S. Fish and Wildlife Service, 18 S. King St., Hampton, Va.) Fishery production for the Virginia areas of Hampton Roads, Lower Northern Neck, and 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; for the month indicated.

(Seattle) Monthly Summary - Fishery Products, May 1956, 5 pp. (Market News Service, U. S. Fish and Wildlife Service, 421 Bell St. Terminal, Seattle 1, Wash.) Includes landings and local receipts as reported by Seattle and Astoria (Oregon) wholesale dealers.

(Chicago) April 1956 Monthly Summary of Chicago's Fresh and Frozen Fishery Products Receipts and Wholesale Prices, 10 pp. (Market News Service, U. S. Fish and Wildlife Service, 565 W. Washington St., Chicago 6, Ill.) Receipts at Chicago by species and by states and provinces; fresh-water fish, shrimp, and frozen fillet wholesale market prices; for the month indicated.

"Oyster Bulletins," processed. (Available free from the Fishery Biological Laboratory, U. S. Fish and Wildlife Service, Milford, Conn.) As in previous years, a series of bulletins are issued during the summer with information of practical importance and interest to the oyster growers of Long Island Sound. These bulletins describe the progress of accumulation and quantity of spawn in oysters during the pre-spawning and spawning periods, report on the intensity of spawning of the oyster population at different depths of Long Island Sound, and report on the beginning and intensity of setting in different sections of Long Island Sound. Also included is information on the survival and rate of growth of recently set oysters, growth of oysters with damaged shell edges, and other facts that may be of interest to oyster culturists. The bulletins are titled: "Observations on Gonad Development, Spawning and Setting of Oysters and Starfish in Long Island Sound."

MISCELLANEOUS PUBLICATIONS

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

Actividades Pesqueras en la Republica Argentina y Posibilidades de Incrementar el Consumo de Pescado (Fishery Activities in the Argentine Republic and Possibilities for Increasing the Consumption of Fish), by Carlos Gonzalez, Publicacion Miscelanea no. 415, 43 pp., illus., printed in Spanish. Ministerio de Agricultura y Ganaderia, Departmento de Investigaciones Pesqueras, Buenos Aires, Argentina, 1956.

Artes y Metodos de Pesca (Primer Curso) (Fishing Techniques and Methods--First Course), by Jose A. Suarez Caabro, 115 pp., illus., printed. Academia Nacional de Patrones, Marina de Guerra, Havana, Cuba, 1955. Discusses oceanography, plankton, fish concentrations, locating fish, various types of fishing, and other information of value to fishermen.

"The Battle of the Bergs," by Jesse C. Burt, article, Natural History, vol. LXV, no. 4, April 1956, pp. 186-191, illus., printed, single copy 50¢. American Museum of Natural History, Central Park West at 79th St., New York 24, N. Y. An interesting article about the icebergs of the North Atlantic which are a menace to the fishermen of the Grand Banks of Newfoundland who fish for cod and haddock. The International Ice Patrol has made the sea lanes safe; now scientists are weighing the practicality of towing large bergs to the rescue of drought-stricken areas.

"Biology of the Red Salmon, Oncorhynchus nerka (Walbaum) of Bristol Bay, Alaska, as Revealed by a Study of Their Scales," by Ted. Swei-yen Koo, p. 1681, printed. Dissertation Abstracts, vol. 15, no. 9, Univ. Microfilms, Ann Arbor, Mich., 1955.

"Boston Firm Uses Fermented Fish in New Soil Fertilizer," by J. Bunker, article, Maine Coast Fisherman, vol. 7, no. 6, January 1953, p. 8, printed. Maine Coast Fisherman, Journal Bldg., Belfast, Me.

A Check List of the Fishes of Iowa with Keys for Identification, by Reeve M. Bailey, 52 pp., illus., printed. (Reprinted from Iowa Fish and Fishing, 1951, pp. 187-237.) Iowa State Conservation Commission, Des Moines, Iowa. A revised check list of fishes of Iowa with keys for identification which are also revised. This list comprises 25 families, 61 genera, 133 species, and 137 total kinds, including subspecies, of native fishes. In addition, four exotic species (brown trout, rainbow trout, carp, and goldfish) have become established and are included in the list.

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

"Coagulating Agents for Use in Herring Reduction: Calcium Chloride-Formalin," article, Meldinger fra SSF, no. 6, October 1951, p. 117, printed in Norwegian. Sildolje-og Sildemelindustriens Forskingsinstitut, Bergen, Norway.

"A Comparison of Alternating and Direct Electric Currents in Fishery Work," by Dwight A. Webster, John L. Forney, Robert H. Gibbs, Jr., Jack H. Severns, and William F. Van Woert, article, New York Fish and Game Journal, vol. 2, no. 1, January 1955, pp. 106-113, printed. Conservation Department, Broadway Arcade Bldg., Albany, N. Y.

The Conservation Yearbook 1955-1956, edited by Erle Kauffman, 306 pp., illus., printed, $7.50. Cornwell, Inc., 1025 Connecticut Ave. NW., Washington 6, D. C. A directory and guide to the conservation of renewable natural resources (including fisheries) and to the conservation agencies and organizations.

Contribution to the History of Fishing in the Southern Seas, by Bengt Anell, Studia Ethnographica Upsaliensia IX, 249 pp., illus., printed, £5 (US$14). Almqvist & Wiksell, Stockholm, Sweden, 1955. The first part of this work deals with the following tackle: thorn-lined trap, plunge-basket, casting net, fishing kite, pole snare, shark snare, and harpoon. As regards their distribution and possible origin they may be divided into two groups, one of which consists of implements characteristic for the tropical areas, and in Oceania chiefly to be found in Melanesia; the other group includes implements which in Oceania are mainly recorded from Polynesia and Micronesia, and which outside Oceania are known chiefly from the northern regions. The author states in the introduction that "The main principle has been to choose a number of fishing implements, the distribution and use of which could be regarded as interesting from an ethnographical point of view. Less attention has been paid to their purely economic importance. Further, it was of particular interest to study the Oceanic distribution of some implements, the occurrence of which in other parts of the world has already been accounted for, e. g. the casting net and the plunge-basket. It is quite obvious that an investigation of the present kind is intended to contribute at the same time, in some measure, to the solution of the current problems of Oceanic ethnography. Although the largest part of the present work deals with the fishing of Oceania, I have also investigated, to a certain degree, the extra-Oceanic distribution of the fishing tackle in question. In this respect special attention has been devoted to the regions along the shores of the Pacific and Indian Oceans. In order to reconstruct the probable diffusion of the Oceanic implements, it is necessary to fit them into a wider context. In doing so it may be possible to realize what is characteristic of Oceanic fishing and what may be ascribed to alien influence. One may also be able to localize the parts of the world from where the main influences emanate and study the evolutionary tendencies. The brief surveys made here are by no means exhaustive and undoubtedly there exists a richer material."

Creatures of the Deep Sea, by Klaus Gunther and Kurt Deckert, translated by E. W. Dickes, 222 pp., illus., printed, $3.95. Chas. Scribner's Sons, 597-599 5th Ave., New York 17, N. Y.

Dehydration of Fish, by C. L. Cutting and G. A. Reay, with a chapter by J. M. Shewan, Food Investigation Special Report No. 62, 175 pp., illus., printed, 7s. 6d. net (US$1.04). Department of Scientific and Industrial Research (Available from Her Majesty's Stationery Office, London, England, 1956). This report describes in detail the various attempts that were made and the development to a commercial scale of a dehydration process for drying minced cooked herring and white fish in warm air. The experiments were carried out on a pilot-plant scale by the Torry Research Station of the Department of Industrial and Scientific Research and the Ministry of Food. It includes discussions on the preliminary examination of various methods of drying; warm-air drying of minced cooked fish--development of the experimental dehydration process and products; commercial-scale dehydration of fish; physical data for dehydrated fish; density, food equivalent, transport requirements, and compression of dehydrated fish; storage properties of dehydrated fish; reconstitution and utilization; bacteriology of dehydrated fish in production and use; factors affecting the cost of dehydrated fish; and the future of fish dehydration.

(East Pakistan) Fishing Craft of East Pakistan, by Nazir Ahmad, 9 pp., illus., printed. Directorate of Fisheries, Government of East Bengal, Dacca, East Bengal, 1955. Describes and illustrates the different kinds of fishing boats used in East Pakistan. These craft differ in length, breadth, depth, and other details from district to district, but have one common characteristic and that is that all of them are of light build and highly buoyant. An attempt is made to classify them by taking into consideration the gear used by them as well as their shape, etc.

"Effects of Rapid Direct Current Pulsations on Fish," by David C. Haskell and William J. Adelman, article, New York Fish and Game Journal, vol. 2, no. 1, January 1955, pp. 95-105, printed. Conservation Department, Broadway Arcade Bldg., Albany, N. Y.

Effect of Some New Insecticides on Fish and Wildlife, by James R. Fielding and William P. Baldwin, 16 pp., printed. (Reprinted from the 1955 Pesticide Handbook.) The N. C. Agricultural Extension Service, University of North Carolina, Chapel Hill, N. C., 1955.

"An Electric Trawl," by David C. Haskell, Donald Geduldig and Edward Snoek, article, New York Fish and Game Journal, vol. 2, no. 1, January 1955, pp. 120-125, printed, single copy 75 cents. New York Fish and Game Journal, New York Conservation Dept., Albany, N. Y. Various problems encountered in attempting to develop an electric trawl for deep water are discussed. A method involving two pairs of electrodes operated by portable alternating current generators proved successful in collecting warm-water species.

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

Enquete Generale sur les Positions Statistiques des Usines Francaises de Conserves de Poissons des Cotes de la Manche et de l'Ocean au Cours de L'Annee 1954 (General Review of the Statistical Position of French Fish Canners for 1954), 8 pp., printed in French. Federation Nationale des Syndicats Francais de Conserveurs des Produits de la Mer, Paris, France. Packs and raw fish received for sardines, tuna, mackerel, herring, anchovies and sprats, and other canned fish and shellfish. Includes amount of raw materials used, number of employees, salaries, and other data.

Estatistica Brasileira da Pesca, 1950-54 (Statistics on Brazil's Fishing Industry, 1950-54), 23 pp., processed. Servico de Estatistica da Producao, Ministerio da Agricultura, Rio de Janeiro, Brazil, 1954.

Farm Fish Ponds in New Zealand, Fisheries Lab. Publ. No. 23, 6 pp., printed. New Zealand Marine Department, Wellington, New Zealand, 1954.

"Farm Ponds for Food and Fun," by James V. Stoddard, article, Wyoming Wildlife, vol. 19, no. 8, August 1955, pp. 22-26, printed. Wyoming Game and Fish Commission, Box 378, Cheyenne, Wyo.

The First Book of Sea Shells, by Betty Cabanna, 39 pp., illus., printed, $1.95. Franklin Watts, Inc., 699 Madison, New York 2, N. Y., 1955.

"Fish By-Products," article, D.S.I.R. Food Investigation Report for the Year 1952, p. 36, printed. H.M.S.O., York House, Kingsway, London, W. C. 2, England, 1953.

Fisheries Research Papers, vol. 1, no. 4, March 1956, 79 pp., illus., printed. Washington Department of Fisheries, 4015 20th Avenue West, Seattle 99, Wash. Contains the following articles: "A Comparison of Otoliths and Interopercular Bones as Age Indicators of English Sole," by Arthur T. Palmen; "Migratory Habits of Pink Salmon in the Tacoma Narrows Area of Puget Sound," by Hans M. Jensen; "Retention of Pacific Oyster Larvae in an Inlet with Stratified Waters," by Ronald E. Westley; "Recoveries of Immature Chum Salmon Tagged in Southern Puget Sound," by Hans M. Jensen; "A Proposed Correction of Migratory Fish Problems at Box Culverts," by W. R. McKinley and R. D. Webb; "Tests on Hauling as a Means of Reducing Downstream Migrant Salmon Mortalities on the Columbia River," by C. H. Ellis; "Introduction of a Japanese Alga, Sargassum muticum, into the Northeast Pacific," by Robert F. Scagel; "An Appraisal of the Fish Ticket System in Respect to the Washington Otter Trawl Fishery," by Dayton L. Alverson; and "New Tattooing Devices for Marking Juvenile Salmon," by William A. Dunstan and Wallace E. Bostick.

Fishery Cooperatives in Canada, by Rafael Mora Rubio, 28 pp., illus., processed. Cooperatives Section, Division of Labour and Social Affairs, Department of Economic and Social Affairs, Pan-American Union, Washington, D. C. Presents a study which analyzes important aspects of technical, economic, and financial problems of fishery cooperatives in the Canadian Provinces of Nova Scotia and Quebec. The problems of plant and equipment, scientific investigation, and education and training of fishermen are the three principal points of interest discussed under the technical problems which confront fishermen's cooperatives in Quebec and Nova Scotia. In the section on economic problems are discussions on income and markets which are both very important in the correct planning of a fishery cooperative. The financial problems, which are the most chronic and acute, begin with the organization of the cooperative. These problems are discussed, and the general opinion is that they can be avoided or minimized by means of sound economic and financial planning.

"Fish Handling and Processing in Europe--Fish By-Products," by W. A. Empey, article, Fisheries Newsletter, vol. 12, no. 6, June 1953, p. 11, printed. Fisheries Newsletter, Box 2595, G.P.O. Sydney, Australia.

(FAO) Sampling Technique for Estimating the Catch of Sea Fish in India, by P. V. Sukhatme, V. G. Panse, and K. V. Sastry, FAO Rept. 55/6/3791, 26 pp., processed. Food and Agriculture Organization of the United Nations, Rome, Italy, 1955.

(FAO) "Technical Service Assists World's Underdeveloped Fisheries," article, The South African Shipping News and Fishing Industry Review, vol. XI, no. 4, April 1956, pp. 61 and 63 illus., printed. Odhams Press, South Africa (Pty.) Ltd., P. O. Box 2598, Cape Town, South Africa. Under the heading of technical assistance the Food and Agriculture Organization of the United Nations is helping to boost the productivity of thousands of fishermen in underdeveloped fisheries throughout the world. This article describes the growth of the technical assistance work of FAO's Fisheries Division and how it covers activities in all phases of fisheries. In 1950 funds were made available to extend and intensify technical assistance in modernizing the fisheries of underdeveloped countries, and since then projects in this field have been conducted in more than 30 countries.

Guide for Sport Fishermen, 1956-1957 Local Fishing Guide, illus., printed, 50 cents for each booklet. Foster Publications, Inc., 165 Broadway, New York, N. Y. A series of booklets providing complete information for the following group of states on when, where, and how to fish in local waters: (1) Pacific Salt Water Annual; (2) Florida-Gulf States Annual; (3) Pacific Fresh Water Annual; (4) Eastern Salt Water Annual; (5) Eastern Fresh Water Annual; (6) Great Lakes States-Canadian Annual.

The Hardshell Clam Fishery of Maryland Waters, by F. W. Sieling, 1 p., illus., printed. (Reprinted from Maryland Tidewater News, vol. 12, no. 10, supplement no. 9, March 1956.) Maryland Department of Research and Education, Chesapeake Biological Laboratory, Solomons, Md.

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

Important Potomac River Fishes Recorded from Marine and Fresh Waters Between Point Lookout, St. Mary's County, and Little Falls, Montgomery County, Maryland, with a Bibliography to Potomac Fisheries, by Romeo Mansueti, 12 pp., processed. Maryland Department of Research and Education, Chesapeake Biological Laboratory, Solomons, Md., January 1955. A list of the important Potomac River fishes with general notations of habitat, movements, time of occurrence, spawning, rate of abundance, average size, whether or not covered by Maryland law, and whether introduced or native. Also contains a list of the most important references on the Potomac River fisheries giving information on the kinds of fish, their distribution, life history, ecology, and economic value.

Import Tariff System of the Philippines, World Trade Information Service Operations Report no. 56-32, Part 2, 4 pp., printed, 10 cents. U. S. Department of Commerce, Washington 25, D. C.

(India) Annual Report of the Department of Fisheries, Bombay State, for the Year 1954-55, 71 pp., illus., printed. Government Book Depot, Charni Road Gardens, Bombay 4, India, 1956. Reports on the marine fisheries, fish-curing yards, fisheries schools, fresh-water fisheries, technological studies, and socio-economic work. Statistics are also included on the different varieties and quantities of fish landed in 1954-55.

Informe sobre las Explotaciones Camaroneras de los Estados Unidos Mexicanos, dedicado al H. Presidente de la Republica Don Adolfo Ruiz Cortines (Notes on the Exploitation of Shrimp in the United States of Mexico, Dedicated to the President of the Republic, Don Adolfo Ruiz Cortines), Boletin Informativo, vol. XV, no. 3 February 1955, 24 pp., illus., printed in Spanish. Centro de Estudios Pesqueros de las Industrias Mexicanas, S. C., Mexico, D. F.

(ICA) Operations Report, December 31, 1955, FY 1956, Issue No. 2, 65 pp., illus., processed. Office of Statistics and Reports, International Cooperation Administration, Washington 25, D. C.

An Introduction to Echosounding, 126 pp., illus., printed. Elac-Electroacustic G.m.b.H., Kiel, Germany, 1955. For more than a quarter century, the echo-sounder has been an indispensible aid to navigators. Its ability to supply depth measurements in practically all weather without impeding the crew's activities gives it a distinct advantage over the earlier lead-line sounding technique. This particular feature has made it invaluable for finding the ship's position and has reduced the risk involved in maneuvering near coastal and shoal waters. With echosounders, trawlers can fish along shelving coasts and banks once considered too dangerous for their operation. Due to improvements and innovations in the equipment, echo-sounders now are able to find fish. The advantages this brings to the fishing trade are obvious. Nets need no longer be shot haphazard because the new method makes it possible to detect fish more rapidly and with less trouble than by test catches. In ground net trawling, these modern "fish-finding sounders" are further useful in that they enable the skipper to steer clear of wrecks or rocks which would tear his net. They also facilitate estimating during trawling how full a net may be. Mid-water trawling has been made possible for the first time through the invention of fish-finding sounders. Without them, nets could not be lowered with any degree of certainty to the level above the seabed where a shoal of fish is located. This booklet discusses in considerable detail the meaning of sound, the use of ultrasound, sounding technique and sounder principles, factors limiting accuracy of measurement, sounding technique, graph indication, interpretation of indications, and indications of fish.

"Introduction of Edible Pond Fish from Philippines," by H. Van Pel, article, SPC Quarterly Bulletin, vol. 6, no. 1, January 1956, p. 17, illus., printed. South Pacific Commission, Box 5254, G.P.O., Sydney, Australia. Fingerlings of three species of edible pond fish, taken from nurseries in Manila, were flown to New Caledonia in October 1955 to stock experimental fish-breeding ponds there. This article describes the operation.

"Investigation & Management of the Atlantic Salmon in 1955," article, Trade News, vol. 8, no. 10, April 1956, pp. 3-16, illus., printed. Department of Fisheries of Canada, Ottawa, Canada. Includes two articles which review the progress made in 1955 on the research and management program aimed at increasing Canada's Atlantic salmon resources. The first article, dealing with the research program, is by Dr. C. J. Kerswill of the Fisheries Research Board of Canada's Biological Station at St. Andrews, N. B., and the second article, dealing with the management program is by Dr. W. M. Sprules of the Conservation and Development Service, Department of Fisheries, Ottawa. An attempt is made to show the purpose of each activity, and the significance of both the additions to knowledge through investigation and the accomplishments through management activities.

"The Isolation from Shark (Galeorhinus australis) Liver Oil of a Multi-Branched C_{18} Saturated Fatty Acid Fraction," by Isobel M. Morice and F. B. Shorland, article, Chemistry and Industry, 1952, pp. 1267-1268. (Reprints are available from the New Zealand Scientific Liaison Office, Room 409, 1907 K St. NW., Washington 6, D. C.)

(Japan) Tokai Regional Fisheries Research Laboratory, Special Publication No. 5, 27 pp., illus., printed. Tokai Regional Fisheries Research Laboratory, Tsukishima, Chuo-ku, Tokyo, Japan. Contains the following articles by Zinziro Nakai: "The Recent Sea Fisheries in Japan and their Resources;" "Recent Trends in Plankton-ological Researches in Japan;" and "The Chemical Composition, Volume, Weight, and Size of the Important Marine Plankton."

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

Key to the Fresh Water Fishes of Texas, by Clark Hubbs, 30 pp., processed. Texas Fish and Game Commission, Austin, Tex., 1955.

"La Pesca del Atun en las Costas de Africa" (Tuna Fishery off the Coasts of Africa), by E. P. Postel, article, Puntal, vol. III, no. 24, March 1956, pp. 8-10, illus., printed in Spanish, 10 pesetas (US$0.04). Puntal, Alicante, Spain.

La Pesca del Atun, y sus Posibilidades en el Golfo de Mexico (The Tuna Fishery and Its Possibilities in the Gulf of Mexico), by Jorge Carranza, no. 11, 33 pp., illus., printed in Mexican. Instituto Mexicano de Recursos Naturales Renovables, A. C., Mexico, D. F., Mexico.

"Liquid Fertilizers Lead in New Applications of Fish By-Products," article, Journal of Agricultural and Food Chemistry, vol. 1, no. 3, April 1953, pp. 206, 229, printed. Journal of Agricultural and Food Chemistry, 20th and Northampton Sts., Easton, Pa.

A Manual Piston Coring Device for Use in Shallow Water, by Robert N. Ginsburg and R. Michael Lloyd, 4 pp., illus., printed. (Reprinted from the Journal of Sedimentary Petrology, vol. 26, no. 1, March 1956, pp. 64-66.) The Marine Laboratory, University of Miami, Coral Gables, Fla.

Meddelelser fra Danmarks Fiskeri-og Havundersøgelser (Reports from Denmark's Fishery and Ocean Research), Ny Serie, vol. 1, nos 2-8, illus., printed in English with summaries in Danish, 15 Kr. (US$2.17). Danmarks Fiskeri-og Havundersøgelser, Charlottenlund Slot, Denmark, 1954. Contains the following reports: No. 2--"On the Quantities of Macroplankton in the North Atlantic," by P. Jespersen, 12 pp.; No. 3--"Is there any Correlation Between Metabolism and Number of Vertebrae (and Other Meristic Characters) in the Sea Trout (Salmo trutta trutta L.)?" by Knud Marckmann, 9 pp.; No. 4--"Foul Taste of Fish and Oysters Caused by Chlorophenol," by Jan Boetius, 8 pp.; No. 5--"On the Life History of Halibut in Faroe Waters," by J. S. Joensen, 25 pp.; No. 6--"Electrofishing of Sea Trout for Stripping," by Knud Larsen, 12 pp.; No. 7--"Efficiency of Marine Bottom Samplers of the van Veen and Petersen Types," by Erik Ursin, 8 pp.; and No. 8--"Planktological Contributions I," by Jul. Grontved, 7 pp.

"A Method for Removing the Effect of Recruitment on Petersen-Type Population Estimates," by Richard A. Parker, article, Journal of the Fisheries Research Board of Canada, vol. 12, no. 3, May 1955, pp. 447-450, printed. Queen's Printer and Controller of Stationery, Ottawa, Canada.

My Hobby is Collecting Sea Shells and Coral, by Ruth H. Dudley, 127 pp., illus., printed, $2.95. Hart Publishing Co., Inc., 670 5th Ave., New York 19, N. Y., 1955.

"Nitrogen Secretion in the Swimbladder of Whitefish," by P. F. Scholander, L. van Dam, and Theodore Enns, article, Science, vol. 123, no. 3185, January 13, 1956, pp. 59-60, printed. Science, 1515 Massachusetts Ave. NW., Washington 5, D. C. Results of analyses of swimbladder gas of whitefish are given. The authors state, that "The swimbladder gas in our deepwater coregonid consists of some 99 percent pure nitrogen gas. ... The deposition of nitrogen and argon against considerable concentration gradients in the swimbladder of fishes suggests, in the absence of other explanations, the possibility of a cellular mechanism for the secretion of inert material."

"The Noisy Underwater World," by Joseph Bernstein, article, Natural History, vol. LXV, no. 4, April 1956, pp. 192-195, 224, illus., printed, single copy 50 cents. American Museum of Natural History, Central Park West at 79th St., New York 24, N. Y. This article describes the scientific investigations of the underwater sounds caused by fish and shellfish and the different noises they make. The hydrophone is the basic instrument in the study of underwater sounds. It is nothing more or less than a microphone adapted for underwater use. Like all microphones, it magnifies the sound it picks up. The sound is then fed into an analyzer unit, which separates it into its basic components. The sounds are recorded either on discs or tape. These records can, of course, be played back, so that the various characteristics can be studied in detail and compared with other sounds. Where the noise is a confused jargon, the analyzer serves to separate the individual sounds according to the different octaves. Each pitch-range can then be separately recorded. In this way it is possible to isolate and identify the different noise producers. "Although the natural history of sonic marine animals is barely out of its swaddling clothes as a science," states the author, "many practical applications have already been made, and still more are in the offing. Experts will be able to predict what underwater sounds can be expected in various areas at different seasons, and the operators of the Navy's listening devices can then swiftly screen out biological interference from more ominous noises."

"Notes on the Seaward Migration of Pink and Chum Salmon Fry," by Ferris Neave, article, Journal of the Fisheries Research Board of Canada, vol. 12, no. 3, May 1955, pp. 369-374, printed. Queen's Printer and Controller of Stationery, Ottawa, Canada.

Nova Scotia Directory of Fish Processors and Packers, 1956, 30 pp., printed. Fisheries Division, Department of Trade and Industry, Halifax, Nova Scotia. This is a directory of producers in Nova Scotia and the products they prepare or pack rather than a directory of dealers and all the products they may have for sale. The names and addresses of the firms are shown as processors and packers of cod and other groundfish, herring, mackerel, alewives, salmon, swordfish, tuna, lobsters, clams, scallops, and producers of liver oil and liver meal and other fishery byproducts.

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

On the Methodology of Marine Plankton Collection, with a Suggested Classification, by Z. Nakai, 7 pp., printed. (Reprinted from Symposium on Marine and Fresh-water Plankton in the Indo-Pacific, 1954), Tokai Regional Fisheries Research Laboratory, Tokyo, Japan.

Our Natural Resources--and Their Conservation, by Richard L. Neuberger, pamphlet no. 230, 28 pp., 25 cents. Public Affairs Committee, New York, N. Y., 1956.

Pacific Halibut Fishery Regulations (Effective April 18, 1956), 12 pp., printed; and Memorandum on 1956 Pacific Halibut Fishery Regulations, 7 pp., processed. International Pacific Halibut Commission, Fisheries Hall No. 2, University of Washington, Seattle 5, Wash., April 1956.

Penobscot River Salmon Restoration, by W. H. Everhart, J. E. Watson, and R. E. Cutting, 13 pp., processed. Department of Inland Fisheries and Game, State House, Augusta, Maine, March 1955.

Preliminary Observations on Effects of 1954 DDT Spraying on Miramichi Salmon Stocks, by C. J. Kerswill and P. F. Elson, Progress Reports of the Atlantic Coast Stations, no. 62, July 1955, 43 pp., printed. Fisheries Research Board of Canada, Ottawa, Canada.

"A Procedure for Installation of Fishways at Natural Obstructions," by C. H. Clay, article, The Canadian Fish Culturist, Issue 17, September 1955, pp. 1-12, printed. Department of Fisheries, Information and Educational Service, Ottawa, Canada.

Producao de Conserva, Salga e Oleo de Peixe, 1954 (Production of Canned Fish, Salted Fish, and Fish Oil, 1954), 37 pp., processed. Servico de Estatistica da Producao, Ministerio da Agricultura, Rio de Janeiro, Brazil, 1954.

Production and a Pelagic Fishery, by D. H. Cushing, Fishery Investigations, Series II, vol. XVII, no. 7, 112 pp., printed, $2.25. British Information Services, 30 Rockefeller Plaza, New York 20, N. Y. In every ocean there are large stocks of pelagic species of fish that are only exploited at their fringes. For example, pilchards, or closely related species, extend from the English Channel to the Cape of Good Hope and are fished only at a few points in their distribution. Among such fisheries there has been from time immemorial one for herring in summer in the northern North Sea. Work of previous authors has made it reasonably certain that the major interest of the fish is in feeding on the common copepod Calanus finmarchicus Gunner. In this fishery there seems a fair possibility of reaching an understanding of those factors that govern success or failure and the present paper attempts the first steps towards achievement of that understanding.

Progress Report of the Cooperative IWASHI Resources Investigations, April 1949-December 1951, by Zinziro Nakai, Shuzo Usami, Shigemasa Hattori, Koji Honjo, and Shigeichi Hayashi, 116 pp., illus., printed. Tokai Regional Fisheries Research Laboratory, Tsukishima, Chuo-ku, Tokyo, Japan, September 1955. In Japan, the commercial name iwashi generally refers to three different species of fish--sardine, Sardinops melanosticta; anchovy, Engraulis japonica; and round herring, Etrumeus micropus. The iwashi holds first place in the total landings of fish belonging to Class Pisces. Being caught in waters all along the coastal areas of the Japanese Islands, these fish play an outstanding role not only in the economy of fishing villages throughout the country but also in the nation's nutritional requirement as a valuable yet readily available source of animal protein. The ultimate objective of the present investigation program is to contribute to the establishment of a conservation policy of the iwashi resource and forecasting prospects of the fisheries. Of the species of fish designated in the present investigation program, emphasis was placed on the sardine, the most important species. In the regions where the anchovies were caught, considerable amount of effort was paid to studies of these fish since they have become a significant item of commercial importance on the Pacific coasts in recent years, while the round herring, whose catch was the least of the three, was treated as a minority. Discussions of the spawning surveys, morphometric surveys, and age composition surveys of catch are presented.

Protokolle zur Fischereitechnik (Journal of Fishery Technology), Heft 16, Bd. 4 (vol. 4, no. 16), 31 pp., illus., processed in German. Institut fur Netz- und Materialforschung, Hamburg 36, Neuer Wall 72, Germany, December 1955.

Report on Additional Studies of Pollution in Biscayne Bay to Federal Security Agency, Public Health Service, National Institutes of Health, under Grant RG-4062 (c2), by J. Kneeland, Progress Report 56-6, 25 pp., processed. The Marine Laboratory, University of Miami, Coral Gables, Fla., February 1956.

Report on the British Fishing Industry, Distant Water Trawlers, 1955, 28 pp., illus., printed. The British Trawlers' Federation, Hull, England. A report on Britain's distant-water fleet in 1955 shows that trawling costs rose sharply, fishermen's earnings increased, and yet by greater productivity and higher efficiency the price of fish remained stable. Includes discussions and statistics on landings and prices, imports of foreign-caught fish, fishermen's earnings, vessel and crew losses, capital cost of fleet, and operations at Hull, Grimsby, and Fleetwood.

"The Resistance to Salt Water Corrosion of Various Types of Metal Wire Used in the Tagging of Flatfish," by C. R. Forrester and K. S. Ketchen, article, Journal of the Fisheries Research Board of Canada, vol. 12, no. 1, January 1955, pp. 134-142, printed. Queen's Printer and Controller of Stationery, Ottawa, Canada.

Revista del Frio (Refrigeration Review), vol. 1, no. 1, January-March 1956, 100 pp., illus., printed in Spanish. Centro Experimental del Frio, Serrano, 150, Madrid, Spain.

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

(Scotland) Report on the Fisheries of Scotland, 1955, Scottish Home Department, Cmd. 9739, 72 pp., printed; 3s. (42 U. S. cents). Her Majesty's Stationery Office, Edinburgh, Scotland, April 1956. A report of Scotland's fisheries, with statistical data for the year 1955. Contains total production figures by species and by port (both comparative and historical), and information on the number of boats, personnel, and methods of capture. Production and value of lobsters, crabs, mussels, oysters, and scallops, and fishery byproducts are also included. Sections are also devoted to discussions of the herring, white fish, and salmon fisheries, marine fisheries law enforcement, scientific investigations, and construction and improvement of harbors.

Scottish Sea Fisheries Statistical Tables for 1955, 48 pp., printed, 4s. 6d. net (about 62 U. S. cents). Scottish Home Department (Available from Her Majesty's Stationery Office, Edinburgh, Scotland), April 1956. Statistics on the Scottish fisheries for 1955 are presented. The amount and value of the fish catch by species, by type of vessels, and by districts; utilization of the catch; number and type of fishing vessels by districts; and number of fishermen employed are some of the statistical data included.

Sea Fisheries Research Notes, 1955, Fisheries Notice No. 35, 12 pp., printed. Ministry of Agriculture, Fisheries and Food, Whitehall Place, London, S. W. 1, England, February 1956. Brief news items on fishery research conducted during 1955 by the British Ministry of Agriculture and Fisheries. A list of scientific and other papers issued by the Ministry is included.

"Some Observations on the Movement of Pacific Salmon Fry through a Small Impounded Water Basin," by D. MacKinnon and J. R. Brett, article, Journal of the Fisheries Research Board of Canada, vol. 12, no. 3, May 1955, pp. 362-368, printed. Queen's Printer and Controller of Stationery, Ottawa, Canada.

"Studies Relating to the Validity of the Scale Method for Age Determination of the Northern Anchovy (Engraulis mordax)," by Daniel J. Miller, Fish Bulletin No. 101, pp. 6-34, printed. California Department of Fish and Game, Marine Fisheries Branch, Sacramento 14, Calif., 1955.

"A Study of the Effects of Aureomycin-Containing Sea Water and Ices Upon the Storage Life of Round Herring," by Tetuo Tomiyama, Shunichi Kuroki, Denki Maeda, Seiji Hamada, and Akira Honda, article, Food Technology, vol. 10, no. 5, May 1956, pp. 215-218, printed. The Garrard Press, 119 West Park Ave., Champaign, Ill. Describes a study made of various procedures for treatment with aureomycin of round herring just after being caught. A remarkable prolongation of storage life of round herring resulted from the treatment by either storage in sea water containing ice and aureomycin (10 p.p.m.) on the boat, storage in an aureomycin-containing ice (p.p.m.) after landing, or their combination. A combination of the storage in aureomycin-sea water and holding in aureomycin-ice was found to prolong the storage life approximately 90 percent more than the control without treatment when stored at 15° to 20° C. and in case of storage at -1° to 2° C., at least 40 percent, i.e., a 5-day prolongation in storage life.

A Study of the Fauna of the Brown Shrimp (PENAEUS AZTECUS Ives) Grounds in the Western Gulf of Mexico, by Henry H. Hildebrand, 366 pp., printed. Publ. of the Institute of Marine Science, vol. 3, no. 2, November 1954. Between October 20, 1950, and August 8, 1951, the bottom fauna on the shrimp beds in the western Gulf of Mexico were studied, as sampled by the trawls of the shrimping fleet. Specimens were identified and counted at sea and some were brought ashore for further study. The four major grounds for the brown shrimp and the pink shrimp grounds in the Gulf of Campeche are for the first time delineated and described. The faunal complex or bottom communities on brown shrimp beds are described and have been given community designations in terms of the most abundant animals caught. Additionally, the comparative or relative abundance of all species of fishes and invertebrates on each ground is more extensively discussed and compared with the inshore fauna. Each species taken is discussed individually and various natural history notes, including bathymetric distribution, are given. Data were gathered on quantitative distribution of white and brown shrimp by number and pounds per acre of bottom trawled. It is clear that the brown shrimp do not "school" extensively while the white shrimp do. The range for brown shrimp was 7.3 to 1.1 pounds per acre while the greatest range for white shrimp during a poor season was 5.4 to 1.6 pounds per acre. A breakdown of the number of species caught shows that the greatest numbers were taken at depths of 12 to 25 fathoms rather than at depths of 0 to 12 fathoms.

Survey of the Littoral Zone of York County, Maine, with Respect to Commercial Productivity, by Louis N. Taxiarchis, General Bulletin No. 2, 13 pp., illus., printed. Department of Sea and Shore Fisheries, Augusta, Maine, 1953.

Technical Report of Fishing Boat, No. 8, 182 pp., illus., printed in Japanese with brief English abstracts. Fishing Boat Laboratory, Production Division, Fisheries Agency, Ministry of Agriculture and Forestry, Kasumigaseki, Chiyodaku, Tokyo, Japan, March 1956. Contains the following reports, with very brief abstracts in English, on various studies in progress at the Fishing Boat Laboratory: (1) "Experiment of Controllable Pitch Propeller of the 'Soyo Maru';" (2) "Experimental Results of Model Tests for Wooden Two-boat Trawler;" (3) "Study on the Automatic Net Depth Meter, Automatic Net Length Meter for Salmon Gill Net and the Results of Measurement at Sea;" (4) "Study on the Automatic Net Depth Meter, Net Height Meter for the Crab Tangle Net and its Practical Application;" (5) "Propagation Characteristics of High Frequency Ultrasound

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

in Sea Water (Continued);" (6) "Study on Reflection Loss of Ultrasonic Wave on Fish-Body by Millimeter Wave;" (7) "Study on Simplified SONAR of 200 kc Ultrasound and its Field Test;" (8) "Experiment of Fish-Finding at Fishing-Ground of Salmon in the North Pacific Ocean;" and (9) "Study on Application of Echo-Sounder for Fishing-Ground of Crab at the Okhotsk Sea, Western Waters of Kamtchatka Peninsula." An appendix lists the reports published in the past, Nos. 1-7.

Trolling Gear in California, by W. L. Scofield, Fish Bulletin No. 103, 45 pp., illus., printed. Department of Fish and Game, 926 Jay St., Sacramento 14, Calif., 1956. An account of the trolling gear and methods of fishing off the coast of California. Trolling may be conducted from a small boat thereby requiring a low original investment and the gear used is relatively inexpensive compared with netting operations. As a result, this manner of fishing has attracted hundreds of commercial fishermen along the 1,000 miles of California coast. In recent years, commercial men are being outnumbered by the host of sport fishermen, many of whom do trolling at some time during the year. Sport fishermen pioneered ocean trolling in California and have initiated several of the improvements that have been adopted during the 75 years since ocean trolling started in this State. An account, from time to time, of the gear and methods of operating is desirable for each of the important fisheries. Not only may changes be noted, but gear and methods of fishing have a direct bearing when appraising the records of catch per unit of fishing effort in attempts to determine changes in the supply of fish in the ocean. Definitions and descriptions of the various types of gear, histories of salmon and albacore trolling in California, and methods of fishing are among some of the subjects presented.

(Washington) State of Washington Commercial Fishing Statistics, 1955, 47 pp., printed. Washington State Department of Fisheries, Fishermen's Terminal, Seattle 99, Wash. Consists almost entirely of tables showing landings of fish and shellfish in the State of Washington by districts, species, and gear. Comparative data on the catch of most items are shown for the years 1935 through 1955. The report also contains information on the value of landings. Data are shown on the Washington salmon pack from 1900 to 1955, as is information on the United States and British Columbia Fraser River sockeye pack arranged by cycle years from 1900 to 1955. Data on the canned pack of other fish and shellfish and the production of oil and meal are also shown. In addition, the report contains data on the monthly salmon escapement over Bonneville Dam during the years from 1938 to 1955; the number of commercial fishing licenses issued by districts from 1938 to 1955; and a comparative statement of receipts from licenses, taxes, fines, and other sources. Conversion of catch data to the IBM method of computing has resulted in the revision of many production figures published previously in the Commercial Statistics series. Corrections from 1935 to date are contained in the 1955 summary, and the tables in this edition supersede all material previously published.

CORRECTION: On page 23 of the July 1956 issue of Commercial Fisheries Review, one of the authors for the article "New Techniques for Freezing and Storing North Atlantic Lobsters" shown as "Joseph W. Flavin" should have read: "Joseph W. Slavin, Refrigeration Engineer."

Editorial Assistant--Ruth V. Keefe Illustrator--Gustaf T. Sundstrom

Compositors--Jean Zalevsky Alma Greene, and Helen Joswick

* * * * * *

Photograph Credits: Page by page, the following list gives the source or photographer for each photograph in this issue. Photographs on pages not mentioned were obtained from the Service's file and the photographers are unknown.

Cover photo--H. R. Bullis; p. 19--J. L. Squires; p. 42--H. H. Eckles; p. 56--J. Pileggi.

INT.-DUP. SEC., WASH., D.C.2264