



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.
 FL FISHERY LEAFLETS.
 SEP. - SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.

Number	Title
CFS-1908	Mississippi River Fisheries, 1957 Annual Summary, 7 pp.
CFS-1922	Texas Landings, September 1958, 3 pp.
CFS-1938	Massachusetts Landings. August 1958, 5 pp.
CFS-1940	Chesapeake Fisheries, 1957 Annual Summary, 6 pp.
CFS-1941	Gulf Fisheries, 1957 Annual Summary, 11 pp.
CFS-1942	New York Landings, October 1958, 4 pp.
CFS-1943	Shrimp Landings, August 1958, 6 pp.
CFS-1945	Louisiana Landings, August 1958, 2 pp.
CFS-1948	California Landings, July 1958, 4 pp.
CFS-1949	Alabama Landings, September 1958, 2 pp.
CFS-1952	Georgia Landings, November 1958, 2 pp.
CFS-1954	South Carolina Landings, November 1958, 2 pp.
CFS-1961	Pacific Coast States Fisheries, 1957 Annual Summary, 6 pp.

In a series to be released covering a survey continuing through June 30, 1959, these reports present statistical data on retail prices for several types of canned tuna, salmon, and Maine sardines. Data were gathered in 31 cities, grouped in three classes according to population. Separate average prices for chain stores and independent stores are shown, together with city average prices weighted by the relative sales volume of chain and independent stores in each city. Included also are the percentage of chain-store weight represented in the prices, the number of independent store prices obtained, and the range of individual prices.

Canned Fish Retail Prices:

- FL-476 - July-September 1958, 70 pp.
 FL-476a - October 1958, 27 pp.
 FL-476b - November 1958, 27 pp.

FL-477 - Fisheries Loans for Vessels, Gear, and Research, 10 pp., December 1958. This pamphlet contains information about the Fisheries Loan Program administered by the Secretary of the Interior. It describes loan purposes, credit requirements, ineligible applications, loan terms, collateral, loan applications, processing applications, compensation for services, loan closing, and repayment of loans.

FL-478 - Canned Fish Consumer Purchases, October-November 1958, 32 pp., illus., processed. Covers part of a broad marketing research program directed toward improving and expanding markets for canned tuna, canned salmon, and canned sardines. The data, which are provided by the Market Research Corporation of America under contract with the Bureau of Commercial Fisheries, represent estimates of national purchases projected from a nationwide consumer panel of approximately 6,000 families representing 22,000 persons. They show the general level of purchases of each product, trends in the range of purchases, prices paid by consumers, and other related factors of interest to those engaged in the marketing of these items. The data in this report represent estimated purchases of canned fish by household consumers only.

Sep. No. 537 - Divers Study Behavior of Starfish and Industry Control Methods.

Sep. No. 538 - New England Commercial Bluefin Tuna Purse Seining - 1958 Season.

Sep. No. 539 - Salt Content of Eviscerated Haddock Frozen in Sodium-Chloride Brine.

Sep. No. 540 - Research in Service Laboratories (February 1959): "Technical Note No. 50 - Effects of Temperature and Salinity on Ciliary Activity in the Oyster (*Crassostrea virginica*)."

Sep. No. 541 - Spawning and Setting in Long Island Sound, Summer 1958.

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

Halibut and Troll Salmon Landings and Ex-Vessel Prices for Seattle, Alaska Ports, and British Columbia, 1957-1958, by Charles M. Reardon, 33 pp., processed, January 1959. (Market News Service, U. S. Fish and Wildlife Service, Pier 42 South, Seattle 4, Wash.) The first part of this biannual report contains data on Seattle troll salmon prices, landings and receipts and landings and ex-vessel prices for troll salmon at the Alaska ports of Juneau, Ketchikan, Pelican, Petersburg, Sitka, and Wrangell. The second part includes statistical tables on Seattle halibut ex-vessel prices, landings and receipts and also landings and ex-vessel prices of halibut for the Alaska ports. The last section of the report includes data on Prince Rupert, B. C., halibut prices and landings for Canadian and United States vessels; Vancouver, B. C., halibut prices and landings for Canadian vessels only;

and troll salmon and halibut landings and receipts at principal Pacific ports.

California Fishery Products Monthly Summary, November 1958, 14 pp. (Market News Service, U. S. Fish and Wildlife Service, Post Office Bldg., San Pedro, Calif.) California cannery receipts of tuna and tunalike fish, sardines, mackerel, and anchovies; pack of canned tuna, sardines, mackerel, and anchovies; market fish receipts at San Pedro, Santa Monica, San Diego, and Eureka areas; California imports; canned fish and frozen shrimp prices; ex-vessel prices for cannery fish; American Tuna Boat Association tuna auction sales; for the month indicated.

Gulf Monthly Landings, Production, and Shipments of Fishery Products, December 1958, 6 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; wholesale prices of fish and shellfish on the New Orleans French Market; and sponge sales; for the month indicated.

Monthly Summary of Fishery Products Production in Selected Areas of Virginia, North Carolina, and Maryland, December 1958, 4 pp. (Market News Service, U. S. Fish and Wildlife Service, 18 So. King St., Hampton, Va.) Fishery landings and 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.

New England Fisheries--Monthly Summary, December 1958, 21 pp. (Market News Service, U. S. Fish and Wildlife Service, 10 Commonwealth Pier, Boston 10, Mass.) Reviews the principal New England fishery ports, and presents food fish landings by ports and species; industrial fish landings and ex-vessel prices; imports; cold storage stocks of fishery products in New England warehouses; fishery landings and ex-vessel prices for ports in Massachusetts (Boston, Gloucester, New Bedford, Provincetown, and Woods Hole), Maine (Portland and Rockland), Rhode Island (Point Judith), and Connecticut (Stonington); frozen fishery products prices to primary wholesalers at Boston, Gloucester, and New Bedford; and landings and ex-vessel prices for fares landed at the Boston Fish Pier and sold through the New England Fish Exchange; for the month indicated.

New York City's Wholesale Fishery Trade--Monthly Summary for November 1958, 19 pp. (Market News Service, 155 John St., New York 38, N. Y.) Includes receipts by species by states and provinces and methods of transportation; states and provinces by species and methods of transportation; totals by species with comparisons, for salt-water finfish, and shellfish. Also contains frozen fishery products prices by primary wholesalers; and imports of selected fishery products; for the month indicated.

(Seattle) Monthly Summary - Fishery Products, November 1958; December 1958; 6 pp. each. (Market News Service, U. S. Fish and Wildlife Service, Pier 42 South, Seattle 4, Wash.) Includes landings and local receipts, with ex-vessel and wholesale prices in some instances, as reported by Seattle and Astoria (Ore.) wholesale dealers; also Northwest Pacific halibut landings; and Washington shrimp landings; for the months indicated.

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.

ANADROMOUS FISH:

Stream Ecology and Production of Anadromous Fish, by Ferris Neave, 6 pp., illus., printed. (Reprinted from The Investigation of Fish-Power Problems, pp. 43-48.) Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada.

ANTIBIOTICS:

"Antibiotics for the Preservation of Food Products," by Harold T. Cook and W. T. Pentzer, article, Agricultural Marketing, vol. 4, no. 1, pp. 16-17, illus., printed, single copy 15 cents. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) Agricultural Marketing Service, U. S. Department of Agriculture, Washington, D. C.

AUSTRALIA:

"The Status of the 'White' Crayfish in Western Australia," by R. W. George, article, Australian Journal of Marine and Freshwater Research, vol. 9, no. 4, December 1958, pp. 537-545, illus., printed. Commonwealth Scientific and Industrial Research Organization, 314 Albert St., East Melbourne, C. 2, Victoria, Australia.

BURMA:

Deep Seafishing in Burma, 13 pp., illus., printed. Martaban Co., Ltd., 49/53 Phayre St., Rangoon, Burma, January 1958. A report of the Burma-Japan Deep Sea Fishing Joint Venture, formed in August 1953 under the name of Martaban Co., Ltd. The venture, under the guidance of the Ministries of Industries, and Agriculture and Forest, has as its aims, among others, the development of self-sufficiency in marine food-stuff and the establishment of subsidiary industries such as fish meal and fertilizer. Several charts showing the location of the fishing grounds and tables on the performance of the Company's trawlers are included. The authors conclude that sea fish is beginning to assert itself into the diet of the Burmese people.

CALIFORNIA:

California Fish and Game, vol. 45, no. 1, January 1959, 64 pp., illus., printed, single copy 75 cents. California Department of Fish and Game,

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722 Capitol Avenue, Sacramento 14, Calif. Contains, among others, the following articles: "A Review of the Lingcod, *Ophiodon elongatus*," by J. B. Phillips; and "The Systematics and Distribution of Crayfishes in California," by J. A. Riegel.

"Status of the Animal Food Fishery in Northern California, 1956 and 1957," by E. A. Best, article, *California Fish and Game*, vol. 45, no. 1, January 1959, pp. 5-18, illus., printed, single copy 75 cents. Department of Fish and Game, 722 Capitol Avenue, Sacramento 14, Calif. According to this report, the annual utilization of trash fish for animal food in northern California has increased sixfold since this industry began in 1952, and is now using in excess of three million pounds of whole fish each year. It also utilizes an additional eight million pounds of fish carcasses annually. The author states that "At the present time the animal food fishery is doing no harm to the established fisheries. The fish that are the raw material for this industry are those which were formerly discarded at sea. No fishery has developed solely for the purpose of supplying this industry. The existing fleet of market fishermen is using the animal food industry as a means of supplementing income by utilizing a resource that formerly was discarded as a waste product of the fishing operations."

COMMON MARKET:

"Les Problemes Poses par l'Entree en Vigueur du Marche Commun Europeen" (The Problems Caused by the Activation of the European Common Market), article, *La Peche Maritime*, vol. 37, no. 969, December 1958, pp. 745-750, illus., printed. *La Peche Maritime*, 190 Boulevard Haussman, Paris, France.

CANNING:

"Canning Export-Type Bonito by the Solid Pack Method," by Fehmi Ersan, article, *Balık ve Balıkçılık* (Fish and Fishery), vol. VI, no. 10, October 1958, pp. 18-20, illus., printed in Turkish. Et ve Balık Kurumu, Istanbul, Turkey.

ECHO-SOUNDING:

Echo-Sounder Surveys in the Autumn of 1956, by D. S. Tungate, *Fishery Investigations*, Series II, vol. XXII, no. 2, 18 pp., illus., printed, \$1.40. Her Majesty's Stationery Office, York House, Kingsway, London W. C. 2, England, 1958. This report describes a series of five echo-sounder surveys carried out on the East Anglian grounds in order to aid the fleet in locating larger herding shoals. Detailed nautical charts are included, depicting the fish densities by areas and dates.

ELECTRICAL FISHING:

"La Peche Electrique en Allemagne" (Electrical Fishing in Germany), article, *La Peche Maritime*, vol. 37, no. 969, December 1958, pp. 819-821, illus., printed. *La Peche Maritime*, 190 Boulevard Haussmann, Paris, France.

EUROPE:

Die Wirtschaftliche Bedeutung der Seefischerei Nordeuropas (The Economic Meaning of the Sea

Fisheries of Northern Europe), by Fritz Bartz, 81 pp., illus., printed in German, DM23.40 (US\$5.60). (Reprinted from *Handbuch der Seefischerei Nordeuropas*, vol. X, no. 9.) E. Schweizerbart'sche Verlagsbuchhandlung, Stuttgart W, Germany, 1958.

FISHERY REGULATIONS:

Some Principles Involved in Regulation of Fisheries by Quota, by W. E. Ricker, 6 pp., printed. (Reprinted from the *Canadian Fish Culturist*, no. 22, May 1958.) Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada.

FISHING VESSELS:

Bau und Seeverhalten von Fischereifahrzeugen (Construction and Seaworthiness of Fishing Vessels), by W. Mockel, 88 pp., illus., printed in German, DM34.80 brosch (US\$8.40). (Reprinted from *Handbuch der Seefischerei Nordeuropas*, vol. XI, no. 5.) E. Schweizerbart'sche Verlagsbuchhandlung, Stuttgart W, Germany, 1958.

FOREIGN TRADE:

"United States Foreign Trade Policy" (A Review Article), by J. M. Letiche, article, *The American Economic Review*, vol. XLVIII, no. 5, December 1958, pp. 954-966, printed, single copy \$1.50. The American Economic Association, 450 Ahnaip St., Menasha, Wis.

FRANCE:

France Peche, vol. 3, no. 23, Special Number--1958, 114 pp., illus., printed in French. *France Peche*, Tour Sud-Est, Rue de Guemene, Lorient, France. Contains, among others, the following articles: "The Importance of Sea-Fishing in French National Economy," by Gilbert Grandval; "The Place of the Fishing Industry in France," "Oyster Farming in France," by Charles Herve; "Salting Down--The Curing of Herring," by Malfoy Wadoux; "French Fishing Boats;" and "Fishing and the World Food Position," by J. Girard.

FRESH-WATER FISH:

"Fresh Water Fish for the Pacific," by H. Van Pel, article, *SPC Quarterly Bulletin*, vol. 8, no. 4, October 1958, pp. 48-49, illus., printed, single copy 30 U. S. cents. South Pacific Commission, Noumea, New Caledonia. The endemic fish populations of streams, rivers, lakes, and ponds in the South Pacific are sparse. Because the human diet in this region is often deficient in the protein that fish can provide, the possibilities of stocking both natural and artificial bodies of water are being explored. This article records observations on recent introductions of eight species of fresh-water fish, as well as on other new species now undergoing trials in the South Pacific Commission's ponds in New Caledonia. Considerable success has been achieved with the tilapia, which thrives in the tropics, is quite prolific, and adapts itself remarkably well to brackish or salt water.

GENERAL:

Contribution of Biology and Oceanography to Increased Harvest of Marine Fishes, by C. P. Idyll,

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Contribution No. 204, 11 pp., printed. (Reprinted from *Transactions of the American Fisheries Society*, vol. 87, 1957.) The Marine Laboratory, University of Miami, Miami, Fla., 1958.

A Field and Laboratory Investigation of Fish in a Sewage Effluent, by I. R. H. Allan, D. W. M. Herbert, and J. S. Alabaster, Ministry of Agriculture, Fisheries and Food Fishery Investigations, Series I, vol. VI, no. 2, 85 pp., illus., printed. Her Majesty's Stationery Office, London, England, 1958.

The Impenetrable Sea, by Arthur Constance, 279 pp., illus., printed, \$4. Citadel Press, 222 4th Ave., New York 3, N. Y. On the wonders of the sea, of winds, whirlpools, coastlines, whales, and plankton.

Improved Methods among Wholesale Food Distributors (For Inventory Control, Sales Accounting, and Shipment of Merchandise), Marketing Research Report No. 271, 75 pp., illus., processed, 40 cents. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) U. S. Department of Agriculture, Agricultural Marketing Service, Washington, D. C. Although this report on improved methods among wholesale food distributors is not specifically for fishery wholesalers, some of the ideas are applicable.

Marking and Regeneration of Fins, by T. A. Stuart, Scottish Home Department Fresh-water and Salmon Fisheries Research No. 22, 17 pp., illus., printed, 5s. (70 U. S. cents). Her Majesty's Stationery Office, Edinburgh, Scotland.

Sustenance from the Sea, by F. G. Walton Smith, Energy Resources Conference, Denver, Colo., October 15, 1958, 7 pp., processed. The Marine Laboratory, University of Miami, Miami, Fla. Our exploding populations today make mandatory the exploration of all possible sources of food. The sea, potentially, has a capacity for providing about ten times as much food as the land could possibly grow under the most favorable conditions. Growth of fish over the entire ocean has been estimated at two billion tons annually, but the actual world catch of fish is only about 26 million tons. New fishing methods, unexplored areas for fishing, and even use of new species of fish are needed.

GULF OF PANAMA:

Some Aspects of Upwelling in the Gulf of Panama, by Milner B. Schaefer, Yvonne M. M. Bishop and Gerald V. Howard, 56 pp., illus., printed in English and Spanish. (Reprinted from *Inter-American Tropical Tuna Commission Bulletin Vol. III, No. 2*, pp. 79-132.) Inter-American Tropical Tuna Commission, La Jolla, Calif., 1958.

HALIBUT:

Regulation and Investigation of the Pacific Halibut Fishery in 1957, Report of the International Pacific Halibut Commission No. 26, 16 pp., illus., printed. International Pacific Halibut Commission, Seattle, Wash., 1958. A brief report of activities of the Commission during 1957 which discusses the historical background of the Com-

mission, the 1957 regulations, statistics of the fishery, catch per unit fishing effort, length of fishing seasons, composition of the catches, growth studies, tagging experiments, and studies of subcommercial size halibut.

HERRING:

The Fecundity of Pacific Herring (CLUPEA PALASII) in British Columbia Coastal Waters, by Fuzuko Nagasaki, 18 pp., illus., printed. (Reprinted from the *Journal of the Fisheries Research Board of Canada*, vol. 15, no. 3, 1958, pp. 313-330.) Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada.

Population Studies on Juvenile Herring in Barkley Sound, British Columbia, by Alan S. Hourston, 52 pp., illus., printed. (Reprinted from *Journal of the Fisheries Research Board of Canada*, vol. 15, no. 5, 1958, pp. 909-960.) Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada.

INTERNATIONAL COMMISSIONS:

International Commission for the Northwest Atlantic Fisheries, Annual Proceedings for the Year 1957-58, vol. 8, 106 pp., illus., printed. International Commission for the Northwest Atlantic Fisheries, Halifax, Nova Scotia, Canada, 1958. This bulletin presents the administrative report of the Commission for the year ending June 30, 1958, including financial statements; a report of the Eighth Annual Meeting of the Commission, June 9-14, 1958; summaries of research during 1957 broken down by country; and a compilation of research reports by subareas for 1957.

JAPAN:

Bulletin of the Faculty of Fisheries, Hokkaido University, vol. 9, no. 2, pp. 89-148, plates, illus., printed in Japanese with summaries in English. Faculty of Fisheries, Hokkaido University, Hakodate, Japan, August 1958. Contains, among others, the following articles: "On the Decrease of Buoyant Force of the Float--II," by Shuzo Igarashi; "On the Trawl Fishing Ground Off the West Coast of the Kamchatka Peninsula," by Tatsuaki Maeda; "Velocity of Invasion of Bacteria from the Point of the Slime ('Neto') Formed on the Surface of the Fish Jelly Product ('Kamaboko')," by Eiichi Tanikawa and Yutaka Fujii; and "Studies on the Complete Utilization of Squid (*Ommastrephes sloani pacificus*). XVII--On the 'Flat Sour' of Canned Squid Meat," by Eiichi Tanikawa and Yoshio Nagasawa.

Bulletin of the Faculty of Fisheries, Hokkaido University, vol. 9, no. 3, pp. 149-257, illus., printed in Japanese with summaries in English. Faculty of Fisheries, Hokkaido University, Hakodate, Japan, November 1958. Contains, among others, the following articles: "Lipids from the Liver of *Octopus dofleini*. I--Composition of Fatty Acids of Acetone-Soluble Lipid," by Mutsuo Hatano; "Lipids from the Liver of *Octopus dofleini*. II--On the Lower Fatty Acids of Acetone-Soluble Lipid," by Mutsuo Hatano; "Structure of the Waters in the Bering Sea and the Aleutian Region," by Hideto Koto and Takeji Fujii; "Quality of Flatfish from Hakodate. 1--Flat-

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fish from Hakodate--from the Viewpoint of Study of Merchandise, not from the Biology," by Keiichi Oishi; "Quality of Flatfish from Hakodate. 2--Evaluation of the Quality," by Keiichi Oishi; and "Studies on the Muscle Meat of *Paralichthodes camtschatica* (Til.)-(I)--Alaska King Crab," by Eiichi Tanikawa, Tetsuro Wakasa, and Yoshio Nagasawa.

Statistic Tables of Fishing Vessels (as of the End of 1957), General Report No. 10, 207 pp., illus., printed in English and Japanese. Japan Fisheries Agency, Tokyo, Japan, 1958. This annual report lists data on the various types of Japanese fishing craft as obtained by a fishing-vessel registration system. Statistics are given by types of gear, fishery, craft, and principal prefectures, together with comparisons for former years.

LINGCOD:

Mortality Rates and Estimates of Theoretical Yield in Relation to Minimum Commercial Size of Lingcod (*OPHIODON ELONGATUS*) from the Strait of Georgia, British Columbia, by Bruce M. Chatwin, 19 pp., illus., printed. (Reprinted from Journal of the Fisheries Research Board of Canada, vol. 15, no. 5, 1958, pp. 831-849.) Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada.

LOBSTERS:

"La Langosta Blanca de Mauritania: Su Industrializacion" (Mauritania's White Spiny Lobster--Its Industry), by Miguel Massuti Oliver, article, Industrias Pesqueras, vol. XXXII, no. 756, October 15, 1958, p. 13, printed in Spanish. Industrias Pesqueras, Policarpo Sanz, 21-2, Vigo, Spain.

MANAGEMENT:

Maximum Sustained Yields from Fluctuating Environments and Mixed Stocks, by W. E. Ricker, 16 pp., illus., printed. (Reprinted from Journal of the Fisheries Research Board of Canada, vol. 15, no. 5, 1958, pp. 991-1006.) Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada.

MARINE BIOLOGY:

Perspectives in Marine Biology, edited by A. A. Buzzati-Traverso, 620 pp., printed, \$10. University of California Press, Berkeley 4, Calif. Consists of 41 papers and round-table discussion presented at a Scripps Institution of Oceanography symposium in 1956.

MISCELLANEOUS:

Journal du Conseil, vol. XXIV, no. 1, 208 pp., illus., printed, single copy Kr. 16 (US\$2.32). Messrs. Andr. Fred. Høst & Søn, Bredgade, Copenhagen, Denmark, November 1958. Among the articles presented in this journal are the following: "Description of Model Used to Demonstrate Dynamics of Exploited Fish Stocks," by I. D. Richardson and J. A. Gulland; "An Analysis of the Variability Associated with the Vigneron-Dahl Modification of the Otter Trawl by Day and by Night and a Discussion of Its Action," by T. B. Bagenal; "An Analysis of the Method of Sampling

the East Anglian Herring Catches," by A. C. Burd; "Estimation of the Stock Strength of the Norwegian Herring," by Olav Aasen; "On the Causes of the Poor Catches of Baltic Herring on the Finnish Coast in the Summer of 1956," by Veikko Sjoblom; "On the Appearance of Rings on Herring Scales," by R. Muzinic and I. D. Richardson; and "Some Seasonal Variations in the Catch and Stock Composition of the Lobster," by H. J. Thomas.

MUSSELS:

The Winter Feeding of the Oystercatcher (*HAEMATOPUS OSTRALEGUS*) on the Edible Mussel (*MYTILUS EDULIS*) in the Conway Estuary, North Wales, by R. E. Drinnan, Fishery Investigations, Series II, vol. XXII, no. 4, 17 pp., illus., printed, 56 U. S. cents. Her Majesty's Stationery Office, York House, Kingsway, London W. C. 2, England, 1958. This study was intended to provide information which, with little local observation, would permit an estimate to be made of oystercatcher predation on any mussel-bearing area. It was found that each bird eats about its own weight of wet shellfish per day. Population samples taken through the winter of 1955/56 showed the steady removal of the larger size groups of mussels by these birds.

NETHERLANDS:

Jaarcijfers Over de Visserij Gedurende Het Jaar 1957 (Annual Fisheries Statistics, 1957), Verlagen en Mededelingen van de Directie van de Visserijen No. 49, 155 pp., illus., printed in Dutch with English titles and summaries, and statistical tables in both Dutch and English. Directie van de Visserijen, 's-Gravenhage, Netherlands, 1958.

NORWAY:

Fiskeflaten, 1957 (The Fishery Fleet, 1957), Arsberetning Vedkommende Norges Fiskerier, 1957, no. 13, 35 pp., printed in Norwegian. John Griegs Boktrykkeri, Bergen, Norway, 1958.

"Fiskerne og Farkostene i Lofotfiske, 1958" (Fishermen and Craft in the Lofoten Fishery, 1958) by Sverre Mollestad, article, Fiskets Gang, vol. 44, no. 50, December 11, 1958, pp. 654-659, illus., printed in Norwegian. Fiskets Gang, Postgiro Nr. 691 81, Bergen, Norway.

OCEANOGRAPHY:

Thermocline Topography, Horizontal Currents and "Ridging" in the Eastern Tropical Pacific, by Townsend Cromwell, 32 pp., illus., printed in English and Spanish. (Reprinted from Inter-American Tropical Tuna Commission Bulletin, Vol. III, No. 3, pp. 135-164.) Inter-American Tropical Tuna Commission, La Jolla, Calif., 1958.

PERU:

La Industria Pesquera Peruana en 1957 (The Peruvian Fishing Industry in 1957), by Javier I. Cortez, Scientific Publication Series No. 10, 14 pp., illus., processed in Spanish. Ministerio de Agricultura, Direccion de Pesqueria y Caza, Lima, Peru, 1958. During 1957, Peru confirmed its position among the principal fishing nations

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of Latin America and maintained first place in production of fish byproducts. This report presents statistical tables on the freezing and canning of fish and shellfish, production of fish meal and oil, catch and consumption of principal species, import and export of fisheries products, and the whaling industry.

PHILIPPINES:

Fisheries Statistics of the Philippines, 1957, 62 pp., illus., processed. Department of Agriculture and Natural Resources, Bureau of Fisheries, Manila, Philippines. This comprehensive report is devoted to fishery production in the Philippines. The tables are grouped together under the headings (1) production, consumption, and requirement; (2) commercial fishing vessels; (3) fish ponds; (4) foreign trade; and (5) other data. Subdivision of the tables is made according to gear, kind of fish caught, monthly production, and fishing grounds. Statistics also cover reptile skins, seaweeds, sharkfins, shells, sponges, trepang, turtle eggs, and turtle shells. The appendices contain information on the fishery districts, the forms used in collecting fishery statistics, and an inventory of fishing gear used in the Philippines for the year 1953. Except for Table 1, which presents fish production data since 1946, most of the information covers the five-year period 1953-57.

POISONOUS FISH:

A Review of Ciguatera, Tropical Fish Poisoning, with a Tentative Explanation of Its Cause, by John E. Randall, Contribution No. 212, 32 pp., illus., printed. (Reprinted from Bulletin of Marine Science of the Gulf and Caribbean, vol. 8, no. 3, September 1958, pp. 236-267.) The Marine Laboratory, University of Miami, Miami, Fla.

PORTUGAL:

"La Pesca Portuguesa de Arrastre y sus Problemas" (Portugal's Trawl Fishing and Its Problems), article, Industrias Pesqueras, vol. XXXII, no. 756, October 15, 1958, pp. 6-8, printed in Spanish. Industrias Pesqueras, Policarpo Sanz, 21-2, Vigo, Spain.

REFRIGERATED WAREHOUSES:

Capacity of Refrigerated Warehouses in the United States, October 1, 1957, CoSt-2 Prelim 58, 31 pp., illus., processed. Agricultural Marketing Service, U. S. Department of Agriculture, Washington, D. C., October 1958.

SALMON:

Comparisons of the Index of Return for Several Stocks of British Columbia Salmon to Study Variations in Survival, by H. Godfrey, 18 pp., illus., printed. (Reprinted from Journal of the Fisheries Research Board of Canada, vol. 15, no. 5, 1958, pp. 891-908.) Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada.

A Comparison of Sockeye Salmon Catches at Rivers Inlet and Skeena River, B. C., with Particular Reference to Age at Maturity, by Harold Godfrey, 23 pp., illus., printed. (Reprinted from

the Journal of the Fisheries Research Board of Canada, vol. 15, no. 3, 1958, pp. 331-354.) Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada.

Density and Distribution of Young Sockeye Salmon (ONCORHYNCHUS NERKA) Throughout a Multi-basin Lake System, by W. E. Johnson, 22 pp., illus., printed. (Reprinted from Journal of the Fisheries Research Board of Canada, vol. 15, no. 5, 1958, pp. 961-982.) Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada.

The Effect of Temperature on the Cruising Speed of Young Sockeye and Coho Salmon, by J. R. Brett, M. Hollands, and D. F. Alderdice, 19 pp., illus., printed. (Reprinted from Journal of the Fisheries Research Board of Canada, vol. 15, no. 4, 1958, pp. 587-605.) Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada.

The Evolution of Migratory Behaviour Among Juvenile Salmon of the Genus ONCORHYNCHUS, by William S. Hoar, 40 pp., illus., printed. (Reprinted from the Journal of the Fisheries Research Board of Canada, vol. 15, no. 3, 1958, pp. 391-428.) Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada.

Implications and Assessments of Environmental Stress, by J. R. Brett, 15 pp., illus., printed. (Reprinted from The Investigation of Fish-Power Problems, pp. 69-83.) Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada.

The Resistance of Cultured Young Chum and Sockeye Salmon to Temperatures Below 0° C., by J. R. Brett and D. F. Alderdice, 9 pp., illus., printed. (Reprinted from Journal of the Fisheries Research Board of Canada, vol. 15, no. 5, 1958, pp. 805-813.) Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada.

Review of Certain Environmental Factors Affecting the Production of Pink and Chum Salmon, by W. P. Wickett, 24 pp., illus., printed. (Reprinted from the Journal of the Fisheries Research Board of Canada, vol. 15, no. 5, 1958, pp. 1103-1126.) Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada.

The Rivers Inlet Sockeye Salmon, by D. R. Fosskett, 23 pp., illus., printed. (Reprinted from the Journal of the Fisheries Research Board of Canada, vol. 15, no. 5, 1958, pp. 867-889.) Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada.

Spawning Stock Size and Resultant Production for Skeena Sockeye, by M. P. Shepard and F. C. Withler, 19 pp., illus., printed. (Reprinted from the Journal of the Fisheries Research Board of Canada, vol. 15, no. 5, 1958, pp. 1007-1025.) Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada.

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

SEA TROUT:

The Sea Trout or Weakfishes (Genus CYNOSCION) of the Gulf of Mexico, by William C. Guest and Gordon Gunter, Technical Summary No. 1, 43 pp., illus., printed, for limited distribution. Gulf States Marine Fisheries Commission, 312 Audubon Bldg., New Orleans 16, La. A summary of the data accumulated in recent years by fishery scientists on the species of sea trout present in the Gulf of Mexico. This report covers the characteristics of the family Otolithidae; distribution of the weakfishes; the life history of the speckled sea trout, *Cynoscion nebulosus*; habits of adult fish; parasitism; the commercial fishery; the sports fishery; and the life histories and utilization of the white and sand trouts.

SPAIN:

Boletín de Información del Sindicato Nacional de la Pesca (Information Bulletin of the National Fishery Syndicate), No. 1, October 1958, 24 pp., printed in Spanish. Sindicato Nacional de la Pesca, Paseo del Prado, 18-20, 6.^a planta, Madrid, Spain. This is the first issue of Boletín de Información. It has been published by Spain's National Fishery Syndicate to replace their monthly periodical Espana Pesquera. The new bulletin containing news on all aspects of foreign and domestic fisheries, will also be published monthly. The Syndicate plans to distribute the bulletin widely and free of charge. This could not be done with Espana Pesquera since it was a very elaborate and expensive-to-publish magazine.

Estadística de Pesca, Año 1957 (Fishery Statistics, Year 1957), 276 pp., printed in Spanish. Ministerio de Comercio, Dirección General de Pesca Marítima, Madrid, Spain. A statistical report presenting the weight and value of fish and shellfish by ports, regions, species, and months. Also contains tables on fishing gear, vessels, and canning factories.

SPONGES:

"La Pesca de las Esponjas en Tunez" (Tunisia's Sponge Fishery), by J. Gaudilliere, article, Puntal, vol. V, no. 53, August 1958, pp. 18-20, illus., printed in Spanish. Puntal, Ramon y Cajal 3, Apartado 316, Alicante, Spain.

STURGEON:

"About the Sturgeons of the Black Sea Basin," by Iham Artuz, article, Balik ve Balıkcılık (Fish and Fishery), vol. VI, no. 10, October 1958, pp. 15-17, printed in Turkish. Et ve Balik Kurumu, Istanbul, Turkey.

THAILAND:

Economic Survey of Pla-Tu Salting Industry 1956, 90 pp., illus., printed in English with portions in

Thai. Agricultural Economics Division, Ministry of Agriculture, Bangkok, Thailand. This report comprises the first study undertaken by the Thai Fisheries Department and covers the industrial curing of this little-known but economically-important Southeast Asian fish. A detailed description is given of ownership of plants, products, source of fresh fish, credit, selling, prices, marketing costs, capital investment, labor, assistance received by salters, and assistance requested. Statistical tables on products and prices received by the salting plants are presented. The report includes a sample questionnaire on Pla-Tu salting used by the researchers in compiling these tables.

TRANSPLANTING FISH:

"About the Transplantation of Plaices," article, Balik ve Balıkcılık (Fish and Fishery), vol. VII, no. 1, January 1959, pp. 21-23, printed in Turkish. Et ve Balik Kurumu, Istanbul, Turkey.

TUNA:

Data Collected on Tuna Spawning Survey Cruise, July 1-20, 1957, Data Report, 17 pp., illus., processed. Inter-American Tropical Tuna Commission, La Jolla, Calif., 1958.

"L'Industrie Thoniere ne Peut Continuer de Vivre Sans 'Esprit' d'Organisation" (The Tuna Industry Cannot Continue to Exist Without the "Spirit" of Organization), article, France Peche, vol. 3, no. 22, October 1958, pp. 19-20, printed in French. France Peche, Tour Sud-Est, Rue de Guemene, Lorient, France.

WHALING:

"Natal's Whaling Industry," article, Shell in Industry, no. 29, September-October 1958, pp. 3-5, illus., printed. The Shell Company, P. O. Box 2231, Cape Town, Union of South Africa. A description of the whaling industry off the Natal coast of South Africa. The official whaling season in South Africa is governed by the regulations of the International Whaling Commission which restrict the sizes of whales and the period of whaling. The season for catching sperm whales off the Natal coast is from April 1 to November 30. Baleen whales may be caught during six months of the year, the period falling within the eight months allowed for taking sperm whales--generally from April 15 to October 14. The weather usually prevents whale catching during September and October. During the South African summer the whales leave for the cold southern waters where food is abundant. This article continues with a description of the sperm and baleen whales and their byproducts.

