



## FISH AND WILDLIFE SERVICE PUBLICATIONS

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CFS - CURRENT FISHERY STATISTICS OF THE UNITED STATES AND ALASKA.  
FL - FISHERY LEAFLETS.  
SEP.- SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.

Number	Title
CFS-1947	- Rhode Island Landings, September 1958, 3 pp.
CFS-1955	- Ohio Landings, November 1958, 2 pp.
CFS-1956	- Louisiana Landings, September 1958, 2 pp.
CFS-1959	- California Landings, August 1958, 4 pp.
CFS-1962	- New York Landings, November 1958, 4 pp.
CFS-1966	- Shrimp Landings, September 1958, 6 pp.
CFS-1968	- Georgia Landings, December 1958, 2 pp.
CFS-1969	- Mississippi Landings, November 1958, 2 pp.
CFS-1970	- North Carolina Landings, December 1958, 3 pp.
CFS-1971	- Alabama Landings, November 1958, 2 pp.
CFS-1972	- Massachusetts Landings, October 1958, 5 pp.
CFS-1973	- Fish Meal and Oil, December 1958, 2 pp.
CFS-1974	- California Landings, September 1958, 4 pp.
CFS-1975	- Maine Landings, December 1958, 3 pp.
CFS-1976	- Fish Sticks and Portions, 1958 Annual Summary, 3 pp.
CFS-1977	- Frozen Fish Report, January 1959, 8 pp.
CFS-1978	- New York Landings, December 1958, 4 pp.
CFS-1979	- Ohio Landings, December 1958, 2 pp.
CFS-1982	- New Jersey Landings, December 1958, 3 pp.
CFS-1983	- Frozen Fish, 1958 Annual Summary, 14 pp.
CFS-1985	- Texas Landings, November 1958, 3 pp.
CFS-1988	- South Carolina Landings, 1958 Annual Summary, 3 pp.
CFS-1991	- North Carolina Landings, 1958 Annual Summary, 6 pp.
CFS-1992	- Mississippi Landings, December 1958, 2 pp.
CFS-1993	- Louisiana Landings, October 1958, 2 pp.
CFS-1996	- North Carolina Landings, January 1959, 3 pp.

- CFS-1997 - Louisiana Landings, November 1958, 2 pp.  
CFS-1998 - Georgia Landings, 1958 Annual Summary, 3 pp.  
CFS-2009 - New Jersey Landings, January 1959, 3 pp.  
CFS-2010 - South Carolina Landings, January 1959, 2 pp.  
CFS-2013 - Florida Landings, January 1959, 7 pp.  
CFS-2015 - Maine Landings, January 1959, 3 pp.

### Canned Fish Retail Prices:

- FL-476c - December 1958, 27 pp.  
FL-476d - January 1959, 27 pp.

Sep. No. 545 - Summary Report of Exploratory Long-Line Fishing for Tuna in Gulf of Mexico and Caribbean Sea, 1954-1957.

Sep. No. 546 - Fisheries Instrumentation Laboratory Offers Biologists New Research "Tools."

Sep. No. 547 - Research in Service Laboratories (April 1959): Contains these articles--"Fish-Bone Detection Device Shows Promise Discussions on Fishy Odors and Autoxidation in Fish Oils;" and "Technical Note No. 52 - Recommendations for Processing Fishery Products for Low-Sodium Diets."

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

California Fishery Products Monthly Summary, January 1959, 16 pp. (Market News Service, U. S. Fish and Wildlife Service, Post Office Bldg., San Pedro, Calif.) California cannery receipts of tuna and tunalike fish; pack of canned tuna, mackerel, and anchovies, market fish receipts at San Pedro, Santa Monica, and Eureka areas; California and Arizona imports; canned fish and frozen shrimp prices; ex-essel prices for cannery fish; American Tuna Boat Association auction sales; for the month indicated.

Gulf Monthly Landings, Production, and Shipments of Fishery Products, January and February 1959, 6 pp. each. (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 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, February 1959, 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, January 1959, 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 December 1958, 19 pp. (Market News Service, 155 John St., New York 38, N. Y.) Includes summaries and analyses of receipts and prices on wholesale Fulton Fish Market, imports entered at New York City, primary wholesaler prices for frozen products, and marketing trends; for the month indicated.

(Seattle) Washington, Oregon, and Alaska Receipts and Landings of Fishery Products for Selected Areas and Fisheries, Monthly Summary, February 1959, 7 pp. (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 (Oreg.) wholesale dealers; also Northwest Pacific halibut landings; and Washington shrimp landings; for the month indicated.

United States Standards for Grades of Frozen Haddock Fillets (effective March 1, 1959), 5 pp., processed, March 1959 (First Issue). U. S. Bureau of Commercial Fisheries, Washington, D. C.

## 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.

### ANTIBIOTICS:

"Use of Antibiotics for the Preservation of Fish and Sea Foods," by J. W. Boyd, H. M. Bluhm, C. R. Muirhead, and H. L. A. Tarr, paper,

Studies 1956, F. R. B. No. 466, printed. Fisheries Research Board of Canada, Ottawa, Ontario, Canada. The search for antibiotics or other substances which could prove valuable in preventing micro-biological spoilage of fish or fish waste products is continuing. The results of trials with several new antibiotics and derivatives are presented in this paper.

### ANTIOXIDANTS:

"Antioxidants Do Not Extend Storage Life of Shellfish," article, Food Engineering, vol. 30, July 1958, p. 107, printed. McGraw-Hill Publishing Co., Inc., 330 W. 42nd St., New York, N. Y.

### BELGIUM CONGO:

"Fishing Methods and Potential in Lake Tanganyika (Belgium Congo)," by J. Stoneman, article, World Fishing, vol. 8, no. 2, February 1959, pp. 52-55, illus., printed. John Trundell, Ltd., St. Richards House, Eversholt St., London, N. W. 1, England.

### BIOCHEMISTRY:

"A Colorimetric Procedure for Phosphorous in Feeds and Marine Products," by B. Gersten, article, Journal of the Association of Official Agricultural Chemists, vol. 40, no. 4, November 1957, pp. 1056-1059, printed. Association of Official Agricultural Chemists, P. O. Box 540, Benjamin Franklin Stn., Washington 4, D. C.

"Physical Analysis of Trawler Fish," by L. D. Gunasekera, and A. W. Lantz, article, Progress Reports Biological and Technological, no. 2, July 1956, pp. 48-50, printed. Department of Fisheries, Colombo, Ceylon.

### BYPRODUCTS:

"Fish Byproducts in Feeds," by H. R. Bird, article, Feedstuffs, vol. 30, July 5, 1958, pp. 79-80, printed. Miller Publishing Co., 118 S. 6th St., Minneapolis 2, Minn. The distinctive values of fish meal are high-quality protein and its unknown factor. Estimates of cost show that the nutrients in fish meal make it a bargain even at a rather high price.

### CANADA:

Fisheries Statistics of Canada, 1956, vol. 1, part 3-A, 34 pp. (tables), printed in English and French, 75 Canadian cents. Dominion Bureau of Statistics, Ottawa, Canada, 1958. (For sale by Queen's Printer and Controller of Stationery, Ottawa, Canada.) This report provides a summary of the Canadian fisheries and the information is arranged to show separately the three main fisheries areas--Atlantic, Pacific, and Inland. It includes data on the quantity and value of the catch of selected fishery products for Canada, 1955-56; production of frozen, smoked, salted, and pickled fish, canned fish and shellfish, and fishery byproducts, 1955-56; landings by trawlers, draggers, etc.; capital equipment in the primary fisheries operations; and employment in fish processing establishments. Also contains data on the quantity and value of exports and imports of fishery products; quantity and value of Canada's fishery products and byproducts, by provinces, 1947-56; Canada's canned lobster pack by provinces, 1947-56; and fishing bounties paid to vessels and boats in 1956.

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Fisheries Statistics of Canada, 1957 (British Columbia), 20 pp., illus., printed in French and English, 50 Canadian cents. Dominion Bureau of Statistics, Ottawa, Canada, 1959. (For sale by Queen's Printer and Controller of Stationery, Ottawa, Canada.) Contains tables giving the quantity and value of fishery products landed in British Columbia in 1939-57, by species and by fisheries districts; quantity and value of manufactured fishery products for 1956-57; capital equipment in the primary fisheries operations; and the number of fishermen engaged in the primary fisheries operations.

Journal of the Fisheries Research Board of Canada, vol. 16, no. 1, January 1959, pp. 1-145, illus., printed. Queen's Printer and Controller of Stationery, Ottawa, Canada. Contains, among others, the following articles: "Effect of Chlorotetracycline (Aureomycin) on the Keeping Quality of Freshwater Fish under Tropical Conditions," by K. Visweswariah, M. N. Moorjani, D. S. Bhatia, and V. Subrahmanyam; "The Action of Pseudomonas on Fish Muscle: 3. Identification of Organisms Producing Fruity and Oniony Odours," by C. H. Castell, Maxine F. Greenough, and Jacqueline Dale; "The Action of Pseudomonas on Fish Muscle: 4. Relation Between Substrate Composition and the Development of Odours by Pseudomonas fragi," by C. H. Castell and Maxine F. Greenough; "Proteins in Fish Muscle. 12. Ultracentrifuge Studies on Post-Rigor Extracts of Structural Protein," by D. G. Ellis and P. M. Winchester; "Proteins in Fish Muscle. 13. Lipid Hydrolysis," by W. J. Dyer and Doris I. Fraser; "Proteins in Fish Muscle. 14. Cod Tropomyosin," by J. R. Dingle and P. H. Odense; "Extractives of Fish Muscle. 2. Solvent-Water Ratio in Extraction of Fat and Water-Solubles," by N. Damberg; "A Seven-Year Study of the Fishery for Lake Whitefish, *Coregonus clupeaformis*, on Lake Winnipeg," by L. C. Hewson; and "A Study of Six Winter Seasons of Commercial Fishing on Lake Winnipeg, 1950-1955," by L. C. Hewson.

Progress Reports of the Atlantic Coast Stations, no. 71, 31 pp., illus., printed in French and English. Queen's Printer and Controller of Stationery, Ottawa, Canada, December 1958. Contains, among others, the following articles: "A Comparison of Various Salt Cod Products," by F. W. van Klaveren and R. Legendre; "Mold Contamination in Salt Fish and Method of Control," by H. P. Dussault; "Fat Hydrolysis in Frozen Fish. 1--Free Fatty Acid Formation," by W. J. Dyer, Doris I. Fraser, and E. G. Bligh; "Stock-Taking of Molluscan Shellfish Resources and Prospects for Improvement," by J. C. Medcof; and "Introducing European Oysters to the Maritimes," by J. C. Medcof and Joan E. Mortimer.

#### CANNED FISH:

"Influence of Storage Time on the Tin and Iron Content in Canned Fish Products," by Jozef Wierzchowski and Maria Severin, article, *Roczniki Panstwowego Zakladu Hig.*, vol. 8, pp. 481-494, printed in Polish with English summary, Polska Akademie Nauk, Pastura', Warsaw 22, Poland, 1957.

#### COD:

"Aspectos Tecnologicos da Preparacao de Bacalhau desde a Captura a Secagem--Preparacao a Bordo dos Lugres Portugueses" (Technological Aspects of the Processing of Cod from Its Landing to Drying--Preparation on Board Portuguese Vessels), by A. Torres Botelho, article, *Boletim da Pesca*, vol. XI, no. 60, September 1958, pp. 35-81, illus., printed in Portuguese. Gabinete de Estudos das Pescas, R. S. Bento, 644, 4.º -Esq., Lisbon, Portugal.

#### COMMISSIONS:

(Atlantic States Marine Fisheries Commission) Minutes of the 17th Annual Meeting (September 24-26, 1958, New York, N. Y.), 100 pp., illus., processed, limited distribution. Atlantic States Marine Fisheries Commission, 22 West First St., Mount Vernon, N. Y. Presents the minutes of the 17th annual meeting of the Commission with details of attendance; the first and second general sessions; and section meetings of the North Atlantic, Middle Atlantic, Chesapeake Bay, and South Atlantic Sections. Also includes a report of the Chesapeake Bay Striped Bass Experiment Committee meeting and seven research papers on fisheries topics.

#### COOKERY:

Let's Serve Canned Salmon, 17 pp., illus., printed. Queen's Printer and Controller of Stationery, Ottawa, Canada, 1958. This attractive booklet presents a short introductory section on canned salmon, in addition to a number of recipes. The latter are grouped by type under the headings: entrees, soup and salads; and tasty snacks. The photo-illustrations are appealing appetite-provokers.

Let's Serve Shellfish, 30 pp., illus., printed. Queen's Printer and Controller of Stationery, Ottawa, Canada, 1958. This booklet is concerned with 6 leading varieties of shellfish: lobster, shrimp, crab, clams, oysters, and scallops. There are short narrative sections on each species of shellfish in addition to instructions for cleaning and cooking. The recipes are easy to understand and are illustrated.

#### EELS:

"A New Solution to the Atlantic Eel Problem," by Denys W. Tucker, article, *Nature*, vol. 183, no. 4660, February 21, 1959, pp. 495-501, illus., printed. St. Martin's Press, Inc., 103 Park Ave., New York 17, N. Y.

#### FISH CULTURE:

"The Fish Culture Research Station, Malacca," by C. F. Hickling, article, *Nature*, vol. 183, no. 4647, January 31, 1959, pp. 287-289, illus., printed. St. Martin's Press, Inc., 103 Park Ave., New York 17, N. Y.

#### FISH MEAL:

"Determination of Small Quantities of Nitrite in Fish Meal," by R. Seibold, article, *Landwirtschaftliche Forschung*, vol. 10, pp. 50-55, printed in German. J. D. Sauerlander's Verlag, Finkenhofstrasse 21, Frankfurt--am--Main, Germany, 1957.



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## FISH OILS:

"Autoxidized Saury Oil and Its Highly Unsaturated Acid Fraction," by Tsutomu Shimooka, Masako Murase, Takeshi Nagakami, and Yoshiyuki Toyama, article, Faculty of Engineering Memoirs, vol. 9, pp. 366-372, printed. Faculty of Engineering, Nagoya University, Nagoya, Japan, 1957.

"Methyl Esters from Marine Oils," by F. A. Vandenhoevel and P. M. Jangaard, article, Canadian Chemical Processing, March 1957, pp. 40-44, printed. Hugh C. MacLean Publications, Ltd., P. O. Box 4000, Terminal A, Toronto 1, Canada.

"Stability of Hydrogenated Saury (*Cololabis saira*) and Whale Oils Determined by the Rate of Increase of Their Peroxide Values," by Maromi Takeda and Yoshiyuki Toyama, article, Faculty of Engineering Memoire, vol. 9, pp. 132-139, printed. Faculty of Engineering, Nagoya University, Nagoya, Japan, 1957.

## The Use of Fish Oils for Fatliquoring Leather.

I--Menhaden Oil and Cod Oil Fatliquors, by Victor Mattei and William T. Roddy, 16 pp., illus., printed. (Reprinted from The Journal of the American Leather Chemists Association, vol. 54, no. 1, January 1959), pp. 12-27. In an effort to find new uses for menhaden oil in the tanning industry, leather fatliquored with menhaden oil was compared to leather fatliquored with cod and neatsfoot oil. The last 2 oils are presently used in the tanning industry for this purpose. For the conditions under which the laboratory and pilot-plant experiments were carried out, the data have failed to show important differences between leathers fatliquored with cod oil and with menhaden oil. Compared to these leathers, leather fatliquored with neatsfoot oil was less firm, did not produce yellowing of leather surfaces, and showed less decrease in extractable grease upon aging. The hardness value has failed to verify the belief that the polymerization properties of menhaden oil would produce a hard surface. None of the fatliquored leathers showed spew formation.

## FISH SCALES:

"The Amino-Acid Composition of Fish-Scale Proteins," by R. W. Burley and C. C. Solomons, article, South African Industrial Chemist, vol. 11, pp. 154-157, printed. South African Chemical Institute, Box 704, Johannesburg, South Africa.

## FOOD AND AGRICULTURE ORGANIZATION:

Interim Report to the Government of the Philippines on Research on Marine Fishery Resources, by K. F. W. Tiews, 37 pp., illus., processed, limited distribution. Fisheries Division, Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, December 1957. This report contains sections on the existing facilities of fishery research in the Philippines, the work done, and plans for future work and budget. The introduction describes the work of the author during the first year of his assignment, October 1956 through September 1957. There is an extensive outline of the research being conducted by the

Philippine Bureau of Fisheries, including research on tuna, anchovy, mackerel, bottom fish, and shrimp. Considerable work is being done by a research vessel and several laboratories.

## FREEZING:

"The Freezing of Fish for Industrial Purposes," by A. Banks and G. C. Eddie, article, Modern Refrigeration & Air Control, vol. 61, no. 728, November 1958, pp. 1126, 1128, 1130, 1132, 1134, and 1135, printed. MacLaren House, 131 Great Suffolk St., London, S. E. 1, England. The authors describe their work on the development of industrial packs of frozen fish from 30 to 100 pounds. The latest economic assessment of the Northern Wave type of freezing trawler is stated and the roles of the consumer and the industrial packs are discussed. Various technical points in the current practice of freezing, storing, and thawing industrial packs are discussed, with short accounts of the work in progress at the Torry Research Station. The authors do not believe that consumer packs of fillets are the only commercially-useful form of quick-frozen fish. They are of the opinion that storage at -20° F. (-29° C.) is more effective and practical than storage at higher temperatures with wrappers or dips other than an ice glaze.

## GENERAL:

Selling Food to the Armed Forces, 13 pp., processed. Chicago Military Subsistence Market Center, 226 West Jackson Blvd., Chicago 6, Ill. A pamphlet on how to sell food used by the Armed Forces. The Military Subsistence Supply Agency is a \$700-million customer of the American Food Industry. Considerably more will be spent this year to supply the food requirements of the armed forces located at home and abroad.

## HANDLING OF FISH:

"Bacteria Brought into Brines on Fish," by J. Liston and J. M. Shewan, paper, The Microbiology of Fish and Meat Curing Brines (Proceedings of the Second International Symposium on Food Microbiology 1957), pp. 35-43, printed. Torry Research Station, Aberdeen, Scotland, 1958. Fish taken directly from the sea usually carry no more than a few thousand bacteria per square centimeter of skin and gill area. The dressing and washing operation, if efficiently performed, may reduce this load even further.

## HERRING:

"Rusty Herring," by F. C. Harrison, article, Contributions to Canadian Biology, vol. 1, nos. 10 to 18, 1923, pp. 279-284, printed. Fisheries Research Board of Canada, Ottawa, Ontario, Canada.

## MARINE ECOLOGY:

Marine Ecology, by Hilary B. Moore, 504 pp., printed. John Wiley and Sons, Inc., 440 Fourth Ave., New York 16, N. Y.

## MISCELLANEOUS:

Errors in Estimates of Mortality Obtained from Virtual Populations, by Yvonne M. M. Bishop, 18 pp., illus., printed. (Reprinted from Journal

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of Fisheries Research Board of Canada, vol. 16, no. 1, 1959, pp. 73-90.) Inter-American Tropical Tuna Commission, La Jolla, Calif. It is concluded from this study that since each individual estimate of total mortality is biased, the virtual population method will generally give an underestimate of the natural mortality and an overestimate of the coefficient of fishing mortality. The only exception to this seems to be when there is a gradual decline in fishing effort when, for the period of years for which this trend persists, the errors in both mortality rates will be in the opposite direction.

#### NORWAY:

"Fiskeflaten, 1958" (The Fishery Fleet, 1958), by Sverre Mollestad, article, *Fiskets Gang*, vol. 45, no. 4, January 22, 1959, pp. 41-46, illus., printed in Norwegian. *Fiskets Gang*, Postgiro Nr. 691 81, Bergen, Norway.

*Innstilling fra Torskefiskeutvalget 1957* (Report of the Cod Fisheries Committee 1957), 208 pp., illus., printed. Trykt i Mariendals Boktrykkeri A.s., Gjøvik, Norway, 1958.

"Norges Fiskerier, 1957" (Norwegian Fisheries, 1957), by Knut Friis, article, *Fiskets Gang*, vol. 44, no. 51, December 18, 1958, pp. 676-682, printed in Norwegian. *Fiskets Gang*, Postgiro Nr. 691 81, Bergen, Norway.

"Norges Fiskerier, 1958" (Norwegian Fisheries, 1958), article, *Fiskets Gang*, vol. 44, no. 52, December 25, 1958, pp. 694-698, printed in Norwegian. *Fiskeridirektoren*, Postgiro nr. 661 81, Bergen, Norway.

"Rapport fra Feitsild- Smasild- og Uertokt med M/S G. O. Sars, 10-29 Nov. 1958" (Report on the Large- and Small-Herring during the Research Trip of the M/S G. O. Sars, November 10-29, 1958), by E. Bratberg and O. Dragesund, article, *Fiskets Gang*, vol. 45, no. 3, January 15, 1959, pp. 27-30, illus., printed in Norwegian. *Fiskets Gang*, Postgiro Nr. 691 81, Bergen, Norway.

"Rapport over Tokt med F/F G. O. Sars, 6/12-17/12-1958" (Report on the Trip of the G. O. Sars, December 6-17, 1958), by Finn Devold, article, *Fiskets Gang*, vol. 45, no. 5, January 29, 1959, pp. 60-61, illus., printed in Norwegian. *Fiskets Gang*, Postgiro Nr. 691 81, Bergen, Norway.

"Rapport om Tokt med G. O. Sars til Barentshavet og Svalbard 15. September til 31. Oktober 1958" (Report on the Trip of the G. O. Sars to the Barents Sea and Svalbard from September 15 to October 31, 1958), by L. Miditun, article, *Fiskets Gang*, vol. 44, no. 51, December 18, 1958, pp. 671-672, illus., printed in Norwegian. *Fiskets Gang*, Postgiro Nr. 691 81, Bergen, Norway.

"Smatralernes Lonnsomhet, 1957" (Small Trawler Earnings, 1957), by A. Holm, article, *Fiskets Gang*, vol. 44, no. 52, December 25, 1958, pp. 689-693, printed in Norwegian. *Fiskeridirektoren*, Postgiro nr. 661 81, Bergen, Norway.

#### NUTRITION:

"Relations Between the Protein Content and the Nutritional Value of *Sebastes marinus*," by C. H. Brandes and R. Dietrich, article, *Fette Seifen Anstrichmittel*, vol. 59, pp. 434-437, printed in German. Deutsche Gesellschaft für Gettwissenschaft, Industrieverlag von Herhausen K. G., 24 Rödingsmarkt, Hamburg 11, Germany, 1957.

#### OCEANOGRAPHY:

*Thermocline Topography, Zooplankton Standing Crop, and Mechanisms of Fertilization in the Eastern Tropical Pacific*, by W. Brandhorst, 16 pp., illus., printed. (Reprinted from *Journal du Conseil International pour l'Exploration de la Mer*, vol. XXIV, no. 1, pp. 16-31, 1958.) Inter-American Tropical Tuna Commission, Scripps Institution of Oceanography, La Jolla, Calif.

#### PACIFIC OCEAN:

*Surface Drift Charts for the Eastern Tropical Pacific Ocean*, by Townsend Cromwell and Edward B. Bennett, 23 pp., illus., printed in English and Spanish. (Reprinted from *Inter-American Tropical Tuna Commission Bulletin*, vol. III, no. 5, pp. 217-237.) Inter-American Tropical Tuna Commission, La Jolla, Calif., 1959. Presents surface current or surface drift charts for the region of the Eastern Tropical Pacific Ocean between 0° and 30° N., and between 120° W. and the coastline of the Americas.

#### PROTEINS:

"Proteins in Some Species of Fish," by Andree Drilhon and Jean M. Fine, article, *Comptes Rendus Hebdomadaires des Séances*, no. 245, pp. 1676-1679, printed in French. Academie des Sciences, Gauthier-Villiers, Quai des Grands-Augustins 55, Paris (6<sup>e</sup>), France, 1957.

"Studies on the Proteins of Fish Skeletal Muscle. 6--Amino Acid Composition of Cod Fibrillar Proteins," by J. J. Connell and P. F. Howgate, article, *The Biochemical Journal*, vol. 71, no. 1, January 1959, pp. 83-86, printed. Cambridge University Press, 32 East 57th St., New York 22, N.Y.

#### SCOTLAND:

*Scottish Fisheries Bulletin*, No. 10, December 1958, 24 pp., illus., printed. Fisheries Division, Scottish Home Department, Edinburgh, Scotland. Contains the following articles: "Mara" by W. Dickson; "Market Sampling," by R. Jones; "Fishing with Lights," by J. H. S. Blaxter; "The Spawning of the Herring," by F. G. T. Holliday; "The Freshwater Fisheries Laboratory, Pitlochry," by K. A. Pyefinch; "The International Herring Tagging Experiments," by G. McPherson; and "Scallop Survey," by A. D. McIntyre.

#### SHARK:

*Notes on the Life History of the Bonnetnose Shark, SPHYRNA TIBURO*, by H. D. Hoese and R. B. Moore, Contribution No. 40, 4 pp., printed. (Reprinted from *The Texas Journal of Science*, vol. X, no. 1, March 1958, pp. 69-72.) Marine Laboratory, Texas Game and Fish Commission, Rockport, Texas.

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## TUNA:

Geographical Distribution of Yellowfin Tuna and Skipjack Catches from the Eastern Tropical Pacific Ocean, by Quarters of the Year, 1952-1955, by Franklin G. Alverson, 49 pp., illus., printed in English and Spanish. (Reprinted from Inter-American Tropical Tuna Commission Bulletin, vol. III, no. 4, pp. 167-213.) Inter-American Tropical Tuna Commission, La Jolla, Calif., 1959. In a previous Commission Bulletin (vol. II, no. 7, pp. 289-363), the geographical distribution of the yearly catches of yellowfin tuna and skipjack from the Eastern Pacific Ocean was described for the period 1952 to 1955, inclusive, based on information obtained from logbook records of bait boats and purse seiners. It is believed that in view of the seasonal nature of the fishery in different areas, a summary of the catches by smaller time units may be of additional value. Accordingly, statistical data employed earlier have been retabulated by quarters of the year and form the basis of the present report.

"The Pigments of Off-Color Cooked Tuna Meat," by W. Duane Brown, A. L. Tappel, and H. S. Olcott, article, Food Research, vol. 23, May-June 1958, pp. 262-268, printed. Department of Food Technology, University of California, Davis, Calif. This paper reports on studies made to determine the chemical properties of the pigments that are responsible for green tuna. Occasionally tuna fail to develop a normal pink color and instead take on a tan to tannish-green color. These tuna are referred to in the industry as green tuna and are rejected. Green tuna represent a loss both to the fishermen and to the tuna canner because they must be handled, cooked, and trimmed before off-color become apparent.

## TEXAS:

Coloration in Texas Hogchokers, TRINECTES MACULATUS FASCIATUS, by Hinton D. Hoese and Carl O. Berglund, Jr., Contribution No. 39, 1 p., printed. (Reprinted from Copeia, no. 1, February 21, 1958, pp. 55-56.) Marine Laboratory, Texas Game and Fish Commission, Rockport, Texas.

Notes and Records of Marine Fishes from the Texas Coast, by Victor G. Springer and Hinton D. Hoese, Contribution No. 41, 6 pp., printed. (Reprinted from The Texas Journal of Science, vol. X, no. 3, September 1958, pp. 343-348.) Marine Laboratory, Texas Game and Fish Commission, Rockport, Texas.

Observations on the Eulittoral Ichthyofauna of the Texas Gulf Coast, by George K. Reid, Contribution No. 30, 9 pp., illus., printed. (Reprinted from The Southwestern Naturalist, vol. 1, no. 4, October 1956, pp. 157-165.) Marine Laboratory, Texas Game and Fish Commission, Rockport, Texas.

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pelagic, demersal, and offshore fish; and catch by months. Also included are tables on fresh-water fisheries; catch by species and tonnage. Principal species of fresh-water fish caught are trout, carp, catfish, and zander.



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