



FISH AND WILDLIFE SERVICE PUBLICATIONS

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

Number	Title
CFS-2144	- Texas Landings, August 1959, 3 pp.
CFS-2147	- Massachusetts Landings, August 1959, 5 pp.
CFS-2149	- North Carolina Landings, September 1959, 3 pp.
CFS-2153	- Fish Meal and Oil, September 1959, 2 pp.
CFS-2158	- New York Landings, August 1959, 4 pp.
CFS-2159	- New Jersey Landings, September 1959, 3 pp.
CFS-2161	- South Carolina Landings, September 1959, 2 pp.
CFS-2162	- Georgia Landings, September 1959, 2 pp.
CFS-2163	- Shrimp Landings, July 1959, 6 pp.
CFS-2166	- Maine Landings, September 1959, 3 pp.
CFS-2167	- Florida Landings, September 1959, 6 pp.
CFS-2169	- California Landings, June 1959, 4 pp.
CFS-2170	- Alabama Landings, August 1959, 2 pp.
CFS-2172	- Texas Landings, September 1959, 3 pp.
CFS-2173	- New York Landings, September 1959, 4 pp.
CFS-2177	- North Carolina Landings, October 1959, 3 pp.
CFS-2180	- Frozen Fish Report, October 1959, 8 pp.
CFS-2181	- South Carolina Landings, October 1959, 2 pp.
CFS-2185	- Rhode Island Landings, September 1959, 3 pp.
CFS-2187	- New Jersey Landings, October 1959, 3 pp.
CFS-2197	- Ohio Landings, September 1959, 2 pp.
CFS-2202	- New England Fisheries, 1958 Annual Summary, 7 pp.
CFS-2203	- Chesapeake Fisheries, 1958 Annual Summary, 7 pp.
CFS-2204	- Manufactured Fishery Products, 1958 Annual Summary, 7 pp.

Canned Fish Consumer Purchases:
 FL-478k - September 1959, 31 pp.

Wholesale Dealers in Fishery Products (Revised):
 SL-1 - Maine, 1959.
 SL-19 - Louisiana (Coastal Area), 1959.
 SL-29 - Ohio (Great Lakes Area), 1959.
 SL-31 - New York (Great Lakes Area), 1959.

WL-379 - Suggested List of Printed Publications on Fish and Wildlife Subjects, 2 pp., November 1958.

SSR-Fish. No. 276 - A List of References on the Biology of Shrimp (Family Penaeidae), by Edward Chin and Donald M. Allen, 146 pp., January 1959.

Fish Recipes for School Lunches, Test Kitchen Series No. 5, 27 pp., printed, 1959 (Revised). A booklet of recipes for quantity cookery of fish and shellfish in school cafeterias. Includes recipes for baked dishes, chowders, salads, and sandwiches with a number of variations on the basic ingredients of each recipe. Planned for 100 portions.

Sep. No. 574 - Results of Exploratory Shrimp Fishing off Washington and Oregon (1958).

Sep. No. 575 - Fish Flour for Human Consumption.

Sep. No. 576 - Sanitation Aboard Fishing Trawlers Improved by Using Chlorinated Sea Water.

Sep. No. 577 - Research in Service Laboratories (January 1960): Contains these articles--"Ocean Perch Filleting Machine Successfully Fillets Yellow Perch," and "Laboratory Work on Frozen Salmon Steak Standard Completed."

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

(Baltimore) Monthly Summary - Fishery Products, September and October 1959; 7 pp. each. (Market News Service, U. S. Fish and Wildlife Service, 400 E. Lombard St., Baltimore 2, Md.) Receipts at Baltimore by species and by states and provinces for fresh- and salt-water fish and shellfish; and total receipts by species and comparisons with previous years; for the months indicated.

California Fishery Products Monthly Summary, October 1959, 13 pp. (Market News Service, U. S. Fish and Wildlife Service, Post Office Bldg., San Pedro, Calif.) California cannery receipts of tuna and tunalike fish, mackerel, anchovies and sardines; pack of canned tuna, mackerel, anchovies, and sardines; market fish receipts at San Pedro, Santa Monica, and Eureka areas; California imports; canned fish and frozen

shrimp prices; ex-vessel prices for cannery fish; American Tuna Boat Association auction sales; for the month indicated.

(Chicago) Monthly Summary of Chicago's Fresh and Frozen Fishery Products Receipts and Wholesale Market Prices, October 1959, 13 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 for fresh- and salt-water fish and shellfish; and wholesale prices for fresh and frozen fishery products; for the month indicated.

Gulf Monthly Landings, Production, and Shipments of Fishery Products, October 1959, 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; sponge sales; and fishery imports at Port Isabel and Brownsville, Tex., for the month indicated.

Monthly Summary of Fishery Products Production in Selected Areas of Virginia, North Carolina, and Maryland, November 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, October 1959, 22 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 September 1959, 22 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.

(New York) List of Primary Brokers and Importers of Fishery Products and Byproducts, New York City, 1959-1960, 16 pp. (Market News

Service, U. S. Fish and Wildlife Service, 155 John St., New York 38, N. Y.)

(Seattle) Washington, Oregon, and Alaska Receipts and Landings of Fishery Products for Selected Areas and Fisheries, Monthly Summary, October 1959, 9 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, (Ore.) wholesale dealers; also Northwest Pacific halibut landings; and Washington shrimp landings; for the month indicated.

Use of Chemical Barriers to Protect Shellfish Beds from Predators, by V. L. Loosanoff, C. L. MacKenzie, Jr., and L. W. Shearer, 9 pp., processed. (Biological Laboratory, U. S. Fish and Wildlife Service, Milford, Conn., 1959.) This paper, which was presented at the July 1959 meeting of the National Shellfisheries Association, describes new, cheap, simple, but effective chemical method of controlling enemies of mollusks grown for human consumption. The method and its ramifications and modifications are designed to control boring gastropods, such as oyster drills and Polinices, starfish, crabs, and other enemies of commercial mollusks, primarily by preventing their invasion of shellfish grounds. The basic idea of the method is comparatively old, having been advocated and developed by the senior author since 1946. It is founded on the principle of surrounding the beds with "barriers" or "belts" containing chemicals which either stop, repel, or kill undesirable forms.

On the Identification of Chum Salmon Stocks in the North Pacific by Means of Scales, Part I, by Tetsuo Kobayashi and Shin-ichi Abe, 34 pp., processed, limited distribution. (Translation of INPFC Doc. 207, Hokkaido Salmon Hatchery, August 1958.) Pacific Salmon Investigations, U. S. Fish and Wildlife Service, 2725 Montlake Blvd., Seattle 2, Wash., October 17, 1958.

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

Fauna of the Aleutian Islands and Alaska Peninsula, with Notes on Invertebrates and Fishes Collected in the Aleutians, 1936-38, by Victor B. Scheffer, North American Fauna No. 61, 420 pp., illus., printed, \$1.25.

"Food-Fish Farming in the Mississippi Delta," by Malcolm C. Johnson, article, The Progressive Fish-Culturist, vol. 21, no. 4, October 1959, pp. 154-160, printed, single copy 25 cents. Presents the novel but potentially lucrative idea of rotation of crops of rice with crops of fish. After several crops of rice have been harvested by which time the land has become less productive, the fields are flooded to a depth of 18 inches or more with fingerling catfish, bass, or buffalo-fish. At the end of two years, the fish are harvested and the fields replanted with rice. Advantages of this system are increased soil fertility, increased rice yields, cash fish crops, recreational value, a long-range increase in

human food, and soil that doesn't blow away while it is lying fallow. The U. S. Fish and Wildlife Service is a sponsor of an experiment station to be built in Arkansas to assist farmers in refining and standardizing techniques in this type of pond fishery.

Food of the Squawfish *PTYCHOCEILUS OREGONENSIS* (Richardson) of the Lower Columbia River, by Richard B. Thompson, Fishery Bulletin 158 (From Fishery Bulletin of the Fish and Wildlife Service, vol. 60), 20 pp., illus., printed, 20 cents, 1959.

Vertical Distribution of Pelagic Fish Eggs and Larvae Off California and Baja California, by Elbert H. Ahlstrom, Fishery Bulletin 161 (From Fishery Bulletin of the Fish and Wildlife Service, vol. 60), 44 pp., illus., printed, 35 cents, 1959.

MISCELLANEOUS PUBLICATIONS

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

ALGAE:

The Marine Algae of the Labrador Peninsula and Northwest Newfoundland (Ecology and Distribution), by Robert T. Wilce, Bulletin No. 158, 107 pp., illus., printed, C\$1.50. National Museum of Canada, Department of Northern Affairs and National Resources, Ottawa, Canada, 1959.

Some Features of Marine Algal Distribution in Norway, by T. Braarud (Reprinted from Acta Adriatica, vol. VIII, No. 15, 8 pp., printed in English with summary in Serbo-Croatian. Institut za Oceanografiju i Ribarstvo, Split, Jugoslavia, 1958.

ANTIBIOTICS:

"Antibiotic Residues in Fish Iced with Chlortetracycline Ice and Effect of Normal Cooking Procedures on These Residues," by J. W. Boyd, B. A. Southcott, and H. L. A. Tarr, article, Antibiotics Annual, 1956-1957, pp. 1002-1005, printed. Antibiotics Annual, 1956-1957, Medical Encyclopedia, Inc., 30 E. 60th St., New York 22, N. Y.

"The Use of Antibiotics for the Control of Spoilage in the East Coast Fisheries. Part 1--Introduction and the Use of Antibiotics in Gutted Cod and Haddock Aboard Trawlers," by C. H. Castell and M. F. Greenough, article, Canadian Fisherman, vol. 45, no. 10, October 1958, pp. 6-8, printed. Canadian Fisherman, National Business Publications, Ltd., Gardenvale, Quebec, Canada.

"The Use of Antibiotics for the Control of Spoilage in the East Coast Fisheries. Part 2--The Effect of Antibiotics on the Keeping Time of Fillets," by C. H. Castell and M. F. Greenough, article, Canadian Fisherman, vol. 45, no. 11, No-

ember 1958, pp. 20-22, printed. Canadian Fisherman, National Business Publications, Ltd., Gardenvale Quebec, Canada.

AUSTRALIA:

Australian Journal of Marine and Freshwater Research, vol. 10, no. 2, October 1959, 143 pp., illus., printed. Australian Journal of Marine and Freshwater Research, Commonwealth Scientific and Industrial Research Organization, 314 Albert St., East Melbourne, C. 2, Australia. Features, among others, articles on: "The Naturalization of the Pacific Oyster in Australia," by J. M. Thompson; and "The Status of the School Shark Fishery in South-Eastern Australian Waters," by A. M. Olsen.

The Freshwater Fishes of New South Wales, by John S. Lake, Research Bulletin No. 5, 25 pp., illus., printed. State Fisheries, Chief Secretary's Department, New South Wales, Sydney, Australia, 1959.

The Status of the East Gippsland Bream Fishery, by John K. Ling, Fisheries Contribution No. 8, 20 pp., illus., processed. Fisheries and Game Dept., 605 Flinders St., Melbourne C. 3, Australia, November 1958.

CANADA:

Progress Reports of the Atlantic Coast Stations, no. 72, 39 pp., illus., printed in French and English. Queen's Printer and Controller of Stationery, Ottawa, Canada, September 1959. Contains, among others, these articles: "Growth and Parasites of Cod during a Year in Captivity," by A. C. Kohler; "Constituents of Salt Cod Pickle," by F. W. van Klaveren and E. Vaillancourt; "Squid Inshore in Newfoundland and on the Grand Bank, 1953 to 1958," by H. J. Squires; "Drift-Netting for Herring along the South Coast of Newfoundland," by S. N. Tibbo; and "Fat Hydrolysis in Frozen Fish. 2--Relation to Protein Stability," by Doris I. Fraser and W. J. Dyer.

Summary Report on Fishery Investigations and Groundfish Landings in Newfoundland during 1957, by A. M. Fleming and Marjorie E. Prouse, Circular No. 5, 41 pp., processed. Fisheries Research Board of Canada, Biological Station, St. John's, Newfoundland, 1958.

Variations dans le Quebec de l'Abondance Annuelle des Poissons Originaires des Grands-Lacs (Variations in Quebec in the Annual Abundance of Fishes Originating in the Great Lakes), by Vadim D. Vladykov and G. Beaulieu, Contribution No. 70, 9 pp., illus., printed in French. (Reprinted from Le Naturaliste Canadien, vol. LXXXV, Nos. 6-7, June-July 1958.) Department of Fisheries, Rm. 127, E. Bldg., Quebec, Canada.

COLD STORAGE:

"Studies on the Discoloration in Fish Meat during Freezing Storage. I--A Spectrophotometric Method for the Simultaneous Determination of Ferrous and Ferric Forms of Myoglobin in Their Mixed Solution," by Y. Sano and K. Hashimoto, article, Bulletin of the Japanese Society of Scientific Fisheries, vol. 24, no. 6-7, 1958, pp. 519-523, illus., printed in Japanese with

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

English abstract. Japanese Society of Scientific Fisheries, c/o Tokyo Suisan Daigaku, Shiba-kaigandori 6-Chome, Tokyo, Japan.

"Studies on Muscle of Aquatic Animals. XXXIX--Changes in Muscle of Yellowtail (*Seriola quinqueradiata*) during Cold Storage," by U. Simidu, H. Terashima, and W. Simidu, article, *Bulletin of the Japanese Society of Scientific Fisheries*, vol. 24, no. 6-7, 1958, pp. 586-590, illus., printed in Japanese with English summary. Japanese Society of Scientific Fisheries, c/o Tokyo Suisan Daigaku, Shiba-kaigandori 6-Chome, Tokyo, Japan.

COLUMBIA RIVER:

Summary Report on the Indian Fishery at Celilo Falls and Vicinity, Columbia River, 1947-1954, 25 pp., illus., processed. Corps of Engineers, U. S. Army, Portland, Ore., August 1955.

DISEASES OF FISH:

Tuberculosis in Pacific Salmon and Steelhead Trout, by James W. Wood and Erling J. Ordal, Contribution No. 25, 38 pp., illus., printed. Fish Commission Research Laboratory, Rt. 1, Box 31A, Clackamas, Ore., December 1958.

ELECTRICAL FISHING:

"Erfahrungen uber Leitfähigkeitsmessungen und Hartebestimmungen im Rahmen der Elektro-fischerei und Gewässerbonitierung" (Experience in Measuring the Conductivity and Determining the Hardness of Water in Connection with Electrofishing and Evaluation of Water), by G. Buhse, article, *Der Fischwirt*, vol. 8, no. 6, pp. 160-161, printed in German. Deutscher Fischerei-Verband, Neuerwall 72, Hamburg 36, W. Germany.

"Gefahren und Schutzmassnahmen bei der Elektro-fischerei" (Dangers and Protective Measures in Electrofishing), by A. Hosl, article, *Der Fischwirt*, vol. 8, no. 1, January 1958, pp. 16-18, printed in German. Deutscher Fischerei-Verband, Neuerwall 72, Hamburg 36, W. Germany.

"Neuartige Thunfischangel in der Elektro-fischerei" (New Type of Tuna Hook in Electrofishing), by K. Schultz, article, *Schiff und Hafen*, vol. 10, no. 9, September 1958, pp. 752-754, printed in German. C. D. C. Heydorns Buchdruckerei, Uetersen bei Hamburg, W. Germany.

"Vorschriften für die Errichtung und den Betrieb von Elektro-fischereianlagen in Binnengewässern" (Regulations for the Installation and Operation of Electrical Fishing Gear in Freshwater Areas), article, *Allgemeine Fischerei Zeitung*, vol. 83, no. 15, August 1958, pp. 293-294, printed in German. Bayer, Landwirtschaftsverlag, G. m. b. H., Marsstrasse 22, Munich 2, W. Germany.

FATTY ACIDS:

Nutritive Value of Highly Unsaturated Fatty Acids and the Origin of Toxicity of Fish Oils, by Takashi Kaneda, Hisae Sakai, and Seinosuke Ishii, 11 pp., illus., printed in Japanese with English abstract. (Reprinted from *Journal of Japanese Society of Food and Nutrition*, vol. 7,

no. 4, December 1954, pp. 1-10.) Chas. E. Tuttle Co., 28-30 So. Main St., Rutland, Vt.

Nutritive Value or Toxicity of Highly Unsaturated Fatty Acids. I, by Takashi Kaneda and Seinosuke Ishii, 9 pp., illus., printed. (Reprinted from *The Journal of Biochemistry*, vol. 41, no. 3, 1954, pp. 327-335.) Department of Biochemistry, Faculty of Medicine, Tokyo University, Bunyo-ku, Tokyo, Japan.

Nutritive Value or Toxicity of Highly Unsaturated Fatty Acids. II, by Takashi Kaneda, Hisae Sakai, and Seinosuke Ishii, 13 pp., illus., printed. (Reprinted from *The Journal of Biochemistry*, vol. 42, no. 5, 1955, pp. 561-573.) Department of Biochemistry, Faculty of Medicine, Tokyo University, Bunyo-ku, Tokyo, Japan.

Studies on the Nutritive Value of Lipides. XII--Nutritive Value or Toxicity of Highly Unsaturated Fatty Acids (3), by Takashi Kaneda, Hisae Sakai, and Seinosuke Ishii, 8 pp., illus., printed in Japanese with English abstract. (Reprinted from *Bulletin of the Japanese Society of Scientific Fisheries*, vol. 20, no. 7, November 1954, pp. 658-663.) Japanese Society of Scientific Fisheries, c/o Tokyo Suisan Daigaku, Shiba-kaigandori 6-Chome, Tokyo, Japan.

FISH CULTURE:

Trout and Salmon Culture (Hatchery Methods), by Earl Leitritz, *Fish Bulletin* No. 107, 169 pp., illus., printed, \$2. Printing Division, Documents Section, North Seventh St. at Richards Blvd., Sacramento 14, Calif., 1959. A practical handbook for acquainting the new hatchery employee with the rudiments of fish culture, and also to serve as a reference for experienced personnel. "During the past 10 or 12 years, applied science and mechanics have revolutionized fish hatchery operations," asserts the author. This text describes such advances as the uses of new chemicals in treating diseases in hatcheries, eradicating undesirable fish populations, artificial spawning, new methods of transporting fish and eggs, and the employment of labor-saving devices such as fish loaders, self-graders, incubators, and dry feeds.

FISH LIVER OILS:

Studies on the Nutritive Values of Lipids. IX--Nutritive Value of Polymerized Liver Oil of Dog Fish, by Takashi Kaneda and Kimie Arai, 4 pp., printed in Japanese with English summary. (Reprinted from *Bulletin of the Japanese Society of Scientific Fisheries*, vol. 19, no. 5, 1953, pp. 700-702.) Japanese Society of Scientific Fisheries, c/o Tokyo Suisan Daigaku, Shiba-kaigandori 6-Chome, Tokyo, Japan.

FISH MEAL:

"Screening Before Milling of Fish Meal Reduces the Proportion of Fine Particles, by R. M. Duncan, article, *Food Industries of South Africa*, vol. 12, no. 3, August 1958, pp. 24-26, printed. Food Industries of South Africa, P. O. Box 4245, Cape Town, Union of South Africa.

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"Tests Show Bulk Storage of Fish Meal Successful," article, Feedstuffs, vol. 30, no. 32, August 1958, p. 78, printed. Feedstuffs, Miller Publishing Co., 2501 Wayzata Blvd., Minneapolis 5, Minn.

FISH OILS:

"Los Aceites de Pescado en la Industria de Pinturas--I" (Fish Oils in the Painting Industry--Parts I and II), by J. Huesa Lope, article, Grasas y Aceites, vol. 8, no. 5, 1957, pp. 226-229, printed in Spanish. Instituto de la Grasa y sus Derivados, Avenida de Heliópolis, Sevilla, Spain.

Nutritive Value or Toxicity of Oils of Salted and Dried Fishes, by Takashi Kaneda, Hisae Sakai, and Seinosuke Ishii, 7 pp., illus., printed in Japanese with English abstract. (Reprinted from Bulletin of the Japanese Society of Scientific Fisheries, vol. 20, no. 7, 1954, pp. 664-669.) Japanese Society of Scientific Fisheries, c/o Tokyo Suisan Daigaku, Shiba-kaigandori, 6-Chome, Tokyo, Japan.

Studies on the Polymerization and Oxidation of Marine Animal Oils. I--Preparation of Edible Oil from Marine Animal Oils, by Hideo Higashi, Shigeo Murayama, and Kikuko Tabei, 14 pp., illus., printed in Japanese with English summary. (Reprinted from Bulletin of the Japanese Society of Scientific Fisheries, vol. 19, no. 4, 1953, pp. 537-550.) Japanese Society of Scientific Fisheries, c/o Tokyo Suisan Daigaku, Shiba-kaigandori 6-Chome, Tokyo, Japan.

FISHERIES MANAGEMENT:

Biological and Economic Aspects of Fisheries Management, edited by James A. Crutchfield, 166 pp., processed. University of Washington, Seattle, Wash. Proceedings of a conference on biological and economic aspects of fisheries management held under the auspices of the College of Fisheries and the Department of Economics of the University of Washington at Seattle, February 17-19, 1959. Economists, fisheries biologists, and members of the commercial fishing industry attended the sessions. The report, which contains the papers delivered and summary notes of the discussions, faithfully describes the transactions.

After a brief discussion of the background for the conference, it launches immediately into the topics of the various sessions which covered: (1) biological and economic aspects of fishery management; (2) halibut fishery management; (3) salmon management in Alaska; and (4) international trade policies and their relation to fisheries. At times the discussions became very lively. As a result much thought-provoking information is set down. Such factors are covered as the effect of management regulations on the conduct of efficient operations in managed fisheries, the need to limit entry of individuals into certain fisheries, the effect of certain controls on processing and marketing operations, the effect of certain types of controls on costs and profits in the industry, etc.

An address entitled "Canada and the Abstinence Principle," by Honorable James Sinclair, former Canadian Minister of Fisheries, is also included in the report. Sinclair's remarks on this important subject are very penetrating.

--W. H. Stolting

FLOATING TRAWLS:

"Entwicklungsstand und Einsatzbedingungen Pelagischer Schleppnetze" (State of Development and Working Conditions of Floating Trawls), by G. Kajewski, article, Fischereiforschung, vol. 1, no. 1, August 1958, pp. 1-4, printed in German. Institut für Hochseefischerei und Fischverarbeitung, Rostock-Marienehe, E. Germany.

FOOD AND AGRICULTURE ORGANIZATION:

La Peche en Italie et la Distribution du Poisson (The Italian Fishery and the Distribution of Fish), by Paolo Pagliuzzi, Technical Paper No. 60, 2 pp., processed in French. General Fisheries Council for the Mediterranean, Food and Agriculture Organization of the United Nations, Rome, Italy.

La Preparation des Catalogues des Noms de Poissons et la Methode de la Geographie Linguistique (The Preparation of Catalogs of Fish Names and the Linguistic Geography Method), by Vojmir Vinja, Technical Paper No. 55, 6 pp., processed. General Fisheries Council for the Mediterranean, Food and Agriculture Organization of the United Nations, Rome, Italy, 1958.

The State of Food and Agriculture, 1959, 206 pp., illus., printed, US\$2. Food and Agriculture Organization of the United Nations, Rome, Italy. (For sale by International Documents Service, Columbia University Press, 2960 Broadway, New York 27, N. Y.) Reviews the world food and agriculture situation during the year ended June 30, 1959, with particular emphasis on the underdeveloped nations. Includes a short section on fishery production which notes that the world catch for 1958 was considerably higher than in 1957. A slightly longer section on fishery policies mentions international conferences concluded or ratified during 1958/59, government assistance to fisheries, and utilization of fishery resources in less-developed countries.

Yearbook of Fishery Statistics, 1958 (Production and Fishing Craft), vol. IX, 454 pp., illus., processed in English, French, and Spanish, \$4. Food and Agriculture Organization of the United Nations, Rome, Italy, 1959. (Sold in United States by Columbia University Press, International Documents Service, 2960 Broadway, New York 27, N. Y.) As in previous years, this edition contains fishery statistics on catches, production of preserved and processed commodities, fishing craft, and whaling from all countries. The maps and graphs section of the Yearbook has been further expanded by the addition of diagrams showing the world catch by continents and the catches of the larger producing countries for a number of years. The total world catch of fishery products for 1958 is estimated at 33.7

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million metric tons compared with 30.6 million tons for 1957.

GEAR:

"A Simple Rig for Multiple Trolling with Reels and Wire Lines," by W. A. King-Webster, article, *World Fishing*, vol. 8, no. 11, November 1959, pp. 25-26, 60, illus., printed. Outlines a new type of gear being tested in trolling for pelagic fish by the Trinidad Fisheries Department. This method utilizes a high speed manual reel attached to a bamboo outrigger, enabling one vessel to operate many more lines simultaneously than was previously possible by hand hauling.

GENERAL:

Seefischerei in Gegenwart und Zukunft (Sea Fishing Now and in the Future), by C. Birkhoff, 153 pp., illus., printed in German. Nordwestdeutscher Verlag Ditzgen und Co., Bremerhaven, W. Germany, October 1957. Deals with the problems, methods, and vessels of the world fishing industry together with a dictionary of fishery technological terms. Topics covered include: the sea, the source of food of the future; necessity of extension of our fish catching areas; fish catching with traps and stationary nets; line and hook fishing; cutter, seine net, tuna, and drift-net fishing; trawling, both side and stern; whaling; catching equipment and methods of tomorrow; and the floating trawl. Also contains information on: electrofishing; fish detection; the history of factoryships; factory trawlers and motherships; operation of a fishing fleet; fish harbors; from catching to consumption; and the future of fishing.

HALIBUT:

Halibut--Observations on its Size at First Maturity, Sex Ratio and Length/Weight Relationship, by Bennet B. Rae, Scottish Home Department Marine Research No. 4, 1959, 19 pp., illus., printed, 7s. 6d. (about US\$1.05). Her Majesty's Stationery Office, 13A Castle St., Edinburgh 2, Scotland. Investigations on commercial and research vessels in the North Atlantic have shown that male halibut normally spawn for the first time at sizes ranging from 28 to 40 inches and females from 39 to 54 inches. Spawning takes place mainly in April and May but evidence of an earlier spawning, based on the occurrence of well developed roes in fish caught in December 1952, is discussed. In the early years of the halibut's life, male and female fish are present in equal numbers but with increasing age and size the females outnumber the males and all the large fish of 60 inches and over were found to be females. The length/weight relationship is studied. Halibut of the same length may vary greatly in weight. This is due to various factors including anatomical, seasonal, and regional differences. The significance of these results is considered in relation to the halibut fisheries, and the need for conservation of such a valuable resource is noted.

HERRING:

Prospects for the 1959-60 British Columbia Herring Fishing Season, by F. H. C. Taylor, Cir-

cular No. 53, 4 pp., processed. Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada, October 1959. The fifteenth in a series of annual circulars dealing with the prospects of the British Columbia herring fishery. These forecasts are made to aid in the formation of effective management policies and to help the industry use the resources more economically. The data are derived from prediction of the carry-over from the estimated abundance in the previous season and the expected new recruitment.

IDAHO:

Statewide Fishing Harvest Survey, 1957, by Forrest R. Hauck, Federal Aid to Fisheries Project F18-R-4, 11 pp., processed. Department of Fish and Game, Boise, Idaho, August 15, 1958.

INTERNATIONAL GEOPHYSICAL YEAR:

"The IGY World Data Centers for Oceanography," by J. R. Lumby, article, *Texas Journal of Science*, vol. XI, no. 3, September 1959, pp. 259-269, illus., printed, single copy \$1.25. Texas Journal of Science, Box 7984, University Station, Austin, Tex.

JAPAN:

Bulletin of Tokai Regional Fisheries Research Laboratory, no. 24, June 1959, 91 pp., illus., printed in Japanese with English summaries. Tokai Regional Fisheries Research Laboratory, Tsukishima, Chuo-ku, Tokyo, Japan. Includes, among others, these articles: "Some Studies on Set Net Fishing Ground," by M. Nomura; "Studies on Trawl Net. III--Observation of the Configuration of a Trawl Net Using a Large Sized Model," by S. Takayama, T. Koyama, and H. Taketomi; and "Prevention of the Adhesion of Canned Salmon Meat," by T. Takahashi and M. Takei.

Collected Reprints, 1958 (from the Tokai Regional Fisheries Research Laboratory), 251 pp., illus., printed in Japanese with English summaries. Tokai Regional Fisheries Research Laboratory, Tsukishima, Chuo-ku, Tokyo, Japan. Contains, among others, these reprints of articles published by Laboratory scientists outside the publications of the Laboratory: "Fluctuations in the Fishery for Young Sardine off Shichiri-Mihama, Kii Peninsula (One of the Data Relevant to Fluctuations of the Sardine Stock in Japanese Waters)," by Z. Nakai; "A Trial on Estimating the Abundance of Population of the Pacific Saury, *Cololabis saira* (Brevoort)" and "On the Availability of the Sardine, *Sardinops melanosticta*, Population Caught by Drift Gill Nets in the Western Japan Sea," by T. Doi; "An Attempt for Determining the Swimming Speed of Fish Schools by the Fish Finder (Preliminary Report)," by S. Kawada, Y. Tawara, and C. Yoshimuta; "An Attempt for Detecting the Swimming Course of Fish Schools at a Set Net Fishing Ground by Fish Finder (Preliminary Report)," by S. Kawada and Y. Tawara; "On the Change in Strength of Netting Cords Immersed in the Sea. II--Relation Between the Strength of Tarred Synthetic Cords and the Temperature, and Comparison of Power of These Cords Changing When

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

Immersed in the Sea," by Y. Shimozaki and Y. Nozawa; "On the Nature of the Streaming Birefringence Observed in the Aqueous Extracts of Squid Muscle. II--Dissolution of 'Myosins' in the Aqueous Extract," by M. Migita and J. J. Matsumoto; "On Purified M-Actomyosin of Squid Muscle," "Some Notes on M-Actomyosin of Squid Muscle," "On Actomyosin of Squid Muscle from Salt-Extract. Preparation of Actomyosin," "On the Protein Composition of Squid Muscle," and "The Effect of ATP on the Viscosity of Squid Actomyosin," by J. J. Matsumoto; "On a Specific Behavior of 'Myosins' of Squid Muscle. I--Precipitability of 'Myosins'," by M. Migita and others; "Influence of Urea upon the Binding of Some Ionic Dyes to Proteins," by M. Migita and S. Otake; "A Comparative Study on the Extractability of Muscle Proteins of Some Animals," by M. Migita, J. J. Matsumoto, and N. Aoe; "Study on the Green Meat of Tuna. I--Quantitative Differences of Vitamin B Group and Minerals Between the Green and the Normal Meat of Precooked Tuna," "Study on the Green Meat of Tuna. II--Quantitative Differences of Vitamin B Group and Minerals in Kidney Between Green and Normal Bodies of Yellowfin Tuna," and "Study on the Green Meat of Tuna. III--A Simple Method to Distinguish Greened Body from Normal One Before Cooking," by S. Hirao and others; "The Pantothenic Acid Content of Fish and Shellfish" and "The Folic Acid Content of Fish and Shellfish," by H. Higashi and others; "Fat and Vitamin A in the Intestine of Lamprey, *Entosphenus japonicus* Martens," by J. Yamada; "The Softening Deterioration of Fish Sausage. I--Some Chemical and Microscopical Aspects," by H. Uchiyama and T. Tanaka; "The Softening Deterioration of Fish Sausage. II--Microbiological Studies of the Softening Deterioration," by M. Yokoseki, H. Uchiyama, and T. Mamizuka; "The Softening Spoilage of Fish Sausage. III--An Anaerobic Starch Digestion by *Bacillus circulans* isolated from Softened Part of Fish Sausage and Other *Bacillus* species," by H. Uchiyama, M. Yokoseki, and K. Motohashi; "Studies on the Internal Spoilage of Fish-Jelly Products. III--Measurement of Oxidation-Reduction Potential in Fish-Jelly Products," by M. Yokoseki; and "Chemical Properties of Oils in Gamma-Radiated Fish Meat and Products. Part I," by T. Kaneda, H. Sakai, and S. Ishii.

LAKE TROUT:

Mortality of Trout Caused by Hooking with Artificial Lures in Michigan Waters 1956-57, by David S. Shetter and Leonard N. Allison, Miscellaneous Publication No. 12, 15 pp., illus., printed. Michigan Department of Conservation, Institute for Fisheries Research, Ann Arbor, Mich., August 1958.

MARINE SCIENCE:

"Field Notes from the 1959 Eastern Pacific Cruise of the *Stella Polaris*," by E. Yale Dawson and Palmer T. Beaudette, article, *Pacific Naturalist*, vol. 1, no. 13, November 10, 1959, illus., printed in English with Spanish summary. The Beaudette Foundation for Biological Research, Box 482, RFD 1, Solvang, Calif. With

present day interest in physical sciences and space-age technology, the natural sciences have been relegated to a position of relative unimportance by the public. This article is one of the series published by the Beaudette Foundation, established in 1958 to encourage and engage in research in the neglected field of marine biological systematics, ecology, and geography. Contains extracts from the writers' logs of the voyage of the *Stella Polaris* from the Gulf of Panama to Jalisco, Mexico, in the spring of 1959. Significant observations are recorded of marine plants, coralline algae, and organic production resulting from coastal upwellings.

MARINE VEGETATION:

Guide to Marine Vegetation Encountered during Herring Spawn Surveys in Southern British Columbia, by Donald N. Outram, Circular No. 44, 18 pp., illus., printed. Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada, December 1957.

MARYLAND:

Exploratory Survey of Tidewater Bottom, Somerset County, Maryland (A Preliminary Report), by J. H. Manning and H. T. Pfitzenmeyer, Resources Study Report No. 12, 6 pp., illus., printed. Maryland Department of Research and Education, Chesapeake Biological Laboratory, Solomons, Md., February 1958.

NETS:

Monofilament Nylon Web for Salmon Gill Nets, 1959, by P. J. G. Carrothers, Circular No. 54, 4 pp., processed. Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada, October 1959. Describes a new type of nylon monofilament netting, Perlon, used experimentally by the commercial salmon gill-net fleet out of Steveston, B. C., in the summer of 1959. This type of netting has the advantage over the multifilament nylon netting of being less visible in the water. Greater catches were reported with the Perlon than with multifilm nylon netting. However, disadvantages such as knot slippage must be overcome before the new type netting can be fully accepted for salmon gill nets.

"Über Einige Erfahrungen bei der Anwendung von Randparallelen Maschen für Leitwehre und Flügel" (Experience with the Use of Parallel Meshes along the Rim for Leading Nets and Wing), by K. Schmidt, article, *Deutsche Fischerei Zeitung*, vol. 5, no. 4, April 1958, pp. 105-107, illus., printed in German. Neumann Verlag, Radebeul, Dresden, E. Germany.

NEW YORK:

The Present Program of the Marine Fisheries Unit of the New York State Conservation Department and a Proposed New Program, by Alfred Perlmutter, 10 pp., processed. Marine Fisheries Unit, New York State Conservation Department, Freeport, New York, June 14, 1957.

OCEAN PERCH:

"Red Flesh in Redfish, *Sebastes marinus*," by W. Templeman and E. J. Sandeman, article, *Journal*

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

of the Fisheries Research Board of Canada, vol. 15, no. 4, July 1958, pp. 695-700, printed. Journal of the Fisheries Research Board of Canada, University of Toronto Press, Ottawa, Canada.

Redfish Distribution in the North Atlantic, by W. Templeman, Bulletin No. 120, 173 pp., printed, C\$1.75. Queen's Printer and Controller of Stationery, Ottawa, Canada, 1959.

PARASITES:

A New Microsporidan Parasite from the Pink Shrimp (PENAEUS DUORARUM), by Edwin S. Iversen and Raymond B. Manning, 3 pp., illus., printed. (Reprinted from Transactions of the American Fisheries Society, vol. 88, 1959, pp. 130-132.) Librarian, Colorado A & M College, Fort Collins, Colo.

PLANKTON:

The Chaetognatha of the Eastropic Expedition, with Notes as to Their Possible Value as Indicators of Hydrographic Conditions, by Paul N. Sund and James A. Renner, 44 pp., illus., printed in Spanish and English. (Reprinted from Inter-American Tropical Tuna Commission Bulletin, vol. 3, no. 9.) Inter-American Tropical Tuna Commission, La Jolla, Calif., 1959.

SALMON:

On the Causes of Fluctuation in the Number of Pacific Salmon and the Tasks in the Rational Use of Stocks, by R. S. Semko, 44 pp., processed. (Translated from Papers of the Conference on Questions of Fisheries, 1951.) Department of State, Washington 25, D. C.

The Food of Pacific Salmon in the Northwestern Pacific Ocean, by L. D. Andrievskaya, Translation Series No. 182, 16 pp., illus., processed. (Translated from Materialy po Biologii Morshovo Perioda Zhizni Dalnevostochnykh Lososei, 1957, pp. 64-75.) Fisheries Research Board of Canada, Biological Station, Nanaimo, B. C., Canada, 1958.

SARDINES:

"Metodos de Cozimento das Sardinhas I" (Methods of Cooking Sardines, Part I), by F. Lopez-Capont, article, Conservas de Peixe, vol. 13, no. 146, May 1958, pp. 20-22, printed in Portuguese. Conservas de Peixe, Reguerao dos Anjos 68, Lisbon, Portugal.

SEA LAMPREY:

Distribution of Sea Lamprey Ammocoetes in Michigan Tributaries of Lake Superior, 1955-1957, by Thomas M. Stauffer and Martin J. Hansen, Miscellaneous Publication No. 11, 25 pp., illus., printed. Michigan Department of Conservation, Institute for Fisheries Research, Ann Arbor, Mich., August 1958.

SEALS:

The Economics of Seals in the Eastern Canadian Arctic, by I. A. McLaren, Circular No. 1, 94 pp., processed. Fisheries Research Board of Canada, Arctic Unit, Montreal, Canada, 1958.

SHAD:

Distant Recaptures of Shad (ALOSA SAPIDISSIMA) Tagged in Quebec, by Vadim D. Vladykov, Contribution No. 54, 18 pp., illus., printed in English with French summary, 50 Canadian cents. (Reprinted from Le Naturaliste Canadien, vol. LXXXIII, no. 10, October 1956.) Department of Fisheries, Rm. 127, E. Bldg., Quebec, Canada, 1957.

SHRIMP:

Prawn Investigations in Eastern Australia, by A. A. Racek, Research Bulletin No. 6, 57 pp., illus., printed. State Fisheries, Chief Secretary's Department, New South Wales, Sydney, Australia, 1959.

A Shrimp Survey by the "Investigator No. 1" April 1953, Circular No. 28, 5 pp., processed. Fisheries Research Board of Canada, Pacific Biological Station, Nanaimo, B. C., Canada, May 1953.

SPAIN:

Industrias Derivadas de la Pesca, Año 1956 (Fishery Industries, 1956), Deposito Legal M. 7619--1958, 128 pp., printed in Spanish. Instituto Nacional de Estadística, Madrid, Spain. Covers Spanish canning, curing, and byproducts industries. Gives data on plants, number of employees, products produced, raw material and species used, and other data for 1956.

Investigacion Pesquera, vol. XIV, August 1959, 135 pp., illus., printed in Spanish with English summaries. Instituto de Investigaciones Pesqueras, Universidad de Barcelona, Spain. Includes, among others, these articles: "Consideraciones Acerca del Crecimiento de la Caballa (*Scomber scombrus* L.) en el Mediterraneo Espanol--Parte I" (Observations in Regard to Growth of the Horse Mackerel in the Spanish Mediterranean), by Carlos Bas Peired; and "Aparicion en la Costa Sudatlantica Espanol de Atunes Marcados en Noreuga" (Appearance on the South Atlantic Coast of Spain of Tuna Tagged in Norway), by Julio Rodriguez-Roda.

TARIFF AND TRADE:

United States Import Duties Annotated for Statistical Reporting (For Use in Preparing Import Entries and Withdrawals), with Classification for Countries (Schedule C) and United States Customs Districts and Ports (Schedule D), January 1, 1960 Edition, 672 pp., processed, \$4. Bureau of the Census, U. S. Department of Commerce, Washington, D. C. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) A simplified guide for use by importers in reporting information to collectors of customs from which monthly reports on foreign trade are compiled. The guide is a reproduction of United States Import Duties (1958) in tariff paragraph arrangement but annotated to include the statistical detail and the new 8-digit statistical reporting numbers required to be reported on the entry forms starting January 1960. A convenient

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index of commodities is included for finding the appropriate tariff paragraph. The new guide is intended to facilitate supplying the statistical requirements on entry forms by presenting the requirements in terms of the Tariff Act rather than in terms of the very different Schedule A arrangement as in the past.

TRADE LISTS:

The Office of Economic Affairs, Bureau of Foreign Commerce, U. S. Department of Commerce, Washington 25, D. C., has published the following mimeographed trade list. Copies may be obtained by firms in the United States from that office or from Department of Commerce field offices at \$2 a copy.

Oils (Animal, Fish, and Vegetable)--Importers, Dealers, Producers, Refiners, and Exporters--Chile, 9 pp. (October 1959). Lists the names and addresses, size of firms, and types of products handled by each firm. Includes firms dealing in fish oils and whale oils.

TROPICAL FISH:

The Status and Distribution of the Fishes of the Family Microdesmidae in the Western Atlantic, by C. Richard Robins and Raymond B. Manning, Contribution No. 214, 4 pp., printed. (Reprinted from Journal of the Washington Academy of Sciences, vol. 48, no. 9, September 1958, pp. 301-304.) The Marine Laboratory, University of Miami, 1 Rickenbacker Causeway, Miami 49, Fla.

TUNA:

Techniques Used in the Tagging of Yellowfin and Skipjack Tunas in the Eastern Tropical Pacific Ocean during 1955-1957, by Gordon C. Broadhead, 7 pp., illus., printed. (Reprinted from Proceedings of the Gulf and Caribbean Fisheries Institute, Eleventh Annual Session, November 1958, pp. 91-97.) Inter-American Tropical Tuna Commission, La Jolla, Calif.

TURKEY:

Balık ve Balıkçılık (Fish and Fishery), vol. 7, no. 11, November 1959, 33 pp., illus., printed in Turkish with table of contents in English. Contains, among others, these articles: "Fishing in Greece and Turkey's Fish Export to this Country," by Cihat Renda; "Trawl Fishing (Part II)," by İlham Artuz; "The Necessity of Quality Control in Fish Canning Industry," by A. Baki Uğur; and "Sponge Fishing on the Aegean Coasts," by Tosun Sezen.

TURTLES:

The Green Turtle (CHELONIA MYDAS MYDAS) in Florida, by Archie Carr and Robert M. Ingle, 6 pp., printed. (Reprinted from Bulletin of Marine Science of the Gulf and Caribbean, vol. 9, no. 3, September 1959, pp. 315-320.) The Laboratory, University of Miami, 1 Rickenbacker Causeway, Miami 49, Fla. Records the first documented observations of nesting emergences of the Atlantic green turtle on the coast of North America. Eggs from one nest were hatched and the young are now in collections of

the University of Florida. The possibility of using such Florida-oriented hatchlings in a future restocking project is discussed.

UNITED KINGDOM:

Sea Fisheries Statistical Tables, 1958, 36 pp., printed, 4s. (56 U. S. cents). Her Majesty's Stationery Office, York House, Kingsway, London W. C. 2, England, 1959. Consists principally of statistical tables showing the quantity, total value, and average value of fish and shellfish production in England and Wales by species, region, and method of capture for 1958. Break-downs of catches by vessels 40 feet and over, demersal landings, and pelagic landings are included. Data on foreign trade are shown. Information on the number of fishermen, vessels, and vessels by stations, methods, and gross tonnage are also given.

VENEZUELA:

"La Pesca Fluvial en el Desarrollo de la Economía Rural" (Inland Fishery in the Development of the Rural Economy), by Felipe Martín Salazar, article, El Agricultor Venezolano, vol. 23, no. 210, July 1959, pp. 13-17, illus., printed in Spanish. Ministerio de Agricultura y Cria, Caracas, Venezuela. A comprehensive article covering fish culture, fishery conservation, and other aspects of the inland fisheries of Venezuela.

VESSELS:

"Motor Tuna Clipper Balbaya," article, Marine Engineer and Naval Architect, vol. 81, October 1958, pp. 367-368, illus., printed. White Hall Technical Press, Ltd., 4 Catherine Place, London S. W. 1, England.

"A Nuclear Whaler," by G. W. Brokaw and others, article, Nuclear Engineering, vol. 3, November 1958, pp. 47-52, illus., printed. Temple Press, Ltd., Bowling Green Lane, London E. C. 1, England.

VIRGIN ISLANDS:

The Commercial Fishery of St. John, Virgin Islands, by C. P. Idyll, no. 8903, 14 pp., processed. The Marine Laboratory, University of Miami, 1 Rickenbacker Causeway, Miami 49, Fla., November 1959. Covers a short survey of the commercial fishery of St. John as a part of the study of marine resources of that area. The principal objectives of the survey were to discover how much commercial fishing was being done, whether there appeared to be any signs of depletion of the fish stocks, and whether the commercial fishery was likely to affect sport fishing. Recommendations are that the commercial fishery should be encouraged to expand, that statistics of catch and fishing effort should be kept, and that marketing facilities should be created.

WALRUS:

The Walrus in the Canadian Arctic, by A. W. Mansfield, Circular No. 2, 13 pp., processed. Fisheries Research Board of Canada, Arctic Unit, Montreal, Canada, 1959.

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WASHINGTON:

Washington State Department of Fisheries, 68th Annual Report, 1958, 303 pp., illus., printed. Washington State Department of Fisheries, 4015 20th Ave., W., Seattle 99, Wash. This report includes information on the activities of the Department of Fisheries during 1958 in the fields of fish farming, marine farming and stream improvement, and enforcement. Sections are also included on otter trawling, offshore trolling investigations, the herring fishery, coastal investigations, Columbia River fisheries, contributions of the Columbia River, sports fishery, and salmon escapement during 1958. Specialized problems are dealt with in chapters on the menace of dogfish shark, commercial clamming, coastal pink shrimp fishery, program for oyster culture, oyster reserve management, oyster reproduction, and oyster rehabilitation research. Reprinted in its entirety is an article, "Salmon of the Pacific," by R. D. Hume, published originally in 1893. A considerable portion of the report is devoted to the 1958 fisheries statistical report containing data on commercial landings and fishway counts.

WHALING:

"Newfoundland Whaling," by Bruce Woodland, article, Trade News, no. 12, no. 4, October 1959, pp. 3-5, illus., processed. Director of Information and Educational Service, Department of Fisheries, Ottawa, Canada. Gives a short account of whaling in Newfoundland, past and present. The loss by fire of a processing plant at Hawkes Harbour leaves only one plant on the Island, at Dildo, Trinity Bay, which confines its operations to processing the meat of pothead and Minke whales and small quantities of oil. The history of whaling in Newfoundland began in the early seventeenth century with the colonization by Sir Richard Whitbourne. The industry represented a major segment of the economy of Newfoundland during most of the nineteenth century but began to decline with the development of petroleum resources. At present, whaling is regulated by the International Whaling Convention of 1946, to which Canada is signatory. The licensing of whaling factories which operate only as shore-based installations, is the responsibility of the individual provinces.

YELLOW PERCH:

The Yellow Perch, Its Life History, Ecology, and Management, by Elmer Herman and others, Publication 228, 12 pp., illus., printed. Wisconsin Conservation Department, Madison 1, Wis., 1959.

YELLOW PIKE:

The Walleye, Its Life History, Ecology, and Management, by Wallace Niemuth, Warren Churchill, and Thomas Wirth, Publication No. 227, 12 pp., illus., printed. Wisconsin Conservation Department, Madison 1, Wis., 1959.

YEARBOOKS AND DIRECTORIES:

Food, The Yearbook of Agriculture, 1959, 750 pp., illus., printed, \$2.25. U. S. Department of Agriculture, Washington 25, D. C. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.) A comprehensive report on the production, processing, distribution, marketing, and preparation of foods, together with principles of nutrition and Government regulation of the food industry. Each chapter is written by an expert or experts in that particular food field, and the chapters are grouped under section headings of food backgrounds, nutrients, health, needs, quality, preparation, costs, trends, learning, and programs. Included in the chapter on food quality is a section on "Fish and the Fishing Industry," by Andrew W. Anderson, Assistant Director of the U. S. Bureau of Commercial Fisheries. The author discusses the nutritive value of fishery products, the program for establishing standards for fishery products, and the operation of a voluntary inspection system in the industry. He describes the activities of the Department of the Interior in behalf of the fishing industry and in the interest of the consuming public. Mention is made of the Fish and Wildlife Act of 1956 and the Saltonstall-Kennedy Act of 1954 and the accomplishments achieved by their implementation, towards both the prosperity of the fishing and allied industries and the welfare of the consumer. There are several illustrations showing world catch of fishery products, 1957; utilization of the U. S. commercial catch in 1958; estimated value of fishery products, 1957; a purchasing guide showing available forms of marketing fish; and other similar data.

YUGOSLAVIA:

Morsko Ribarstvo (Marine Fisheries), no. 9, Sept. 1959, 20 pp., illus., printed in Yugoslavian with the contents of main articles in English. Morsko Ribarstvo, V. Gagata 3, P. O. B. 185, Rijeka, Yugoslavia. Contains, among others, the following articles: "Influence of the Intensity of Fishing upon the Composition of Fish Colonies," by Sime Zupanovic; and "Influence of the Forest upon the Production in Coastal Waters," by Miljenko Buljan.

Morsko Ribarstvo (Marine Fisheries), no. 10, October 1959, 20 pp., illus., printed in Yugoslavian with the contents of main articles in English. Morsko Ribarstvo, V. Gagata 3, P. O. B. 185, Rijeka, Yugoslavia. Contains, among others, the following articles: "The Behaviour of Phytoplankton during Fertilization Experiments," by Tereza Pucher-Petkovic; and "Experimental Tank for Live Bait," by Radosna Muzinic. Also contains a report on the catching of Clupea sprattus by using submarine lighting, nets, and aspirators in the Caspian Sea; and a report, by Kresimir Sepic, from the X--International Congress of Refrigeration held in Copenhagen, August 19-26, 1959.

