



RECENT FISHERY PUBLICATIONS

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.
- SL - STATISTICAL SECTION LISTS OF DEALERS IN AND PRODUCERS OF FISHERY PRODUCTS AND BYPRODUCTS.
- SSR.-FISH - SPECIAL SCIENTIFIC REPORTS--FISHERIES (LIMITED DISTRIBUTION).
- SEP.- SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.

- | Number | Title |
|----------|---|
| CFS-1093 | - Alabama Landings, November 1954, 2 pp. |
| CFS-1102 | - Florida Landings, January 1955, 6 pp. |
| CFS-1117 | - Maine Landings, Annual 1954, 6 pp. |
| CFS-1118 | - New York Landings, February 1955, 5 pp. |
| CFS-1122 | - New Jersey Landings, February 1955, 2 pp. |
| CFS-1128 | - Frozen Fish Report, March 1955, 8 pp. |
| CFS-1132 | - Fish Sticks, January-March 1955, 2 pp. |
| CFS-1133 | - Massachusetts Landings, January 1955, 4 pp. |
| CFS-1134 | - Massachusetts Landings by Ports-- Annual 1954, 16 pp. |
| CFS-1135 | - Florida Landings, February 1955, 6 pp. |
| CFS-1136 | - Texas Landings, March 1955, 3 pp. |
| CFS-1137 | - Lake Fisheries, 1953 Annual Summary, 6 pp. |
| CFS-1141 | - Fish Meal and Oil, March 1955, 3 pp. |
| CFS-1144 | - New Jersey Landings, March 1955, 2 pp. |
| CFS-1145 | - Maine Landings, March 1955, 4 pp. |
| CFS-1146 | - Massachusetts Landings, 1954--By Gear & Subarea, 16 pp. |

WHOLESALE DEALERS IN FISHERY PRODUCTS:

- SL - 2 - New Hampshire, 1954, 1 p.
- SL - 14 - South Carolina, 1954, 2 pp.
- SL - 15 - Georgia, 1954, 2 pp.

FL-298 (Revised April 1955) - Employment Possibilities in the Alaskan Fishing Industry, 4 pp. This leaflet outlines the possibilities for employment on vessels, in shore plants, and in canneries. Current prevailing wage rates are listed for craftsmen, outside crews, cannery and culinary workers, and fishing vessels. The leaflet points out that during World War II there was a serious shortage of manpower in the fishing industry in the Pacific Northwest and Alaska; however, that condition no longer exists. As a result, inexperienced personnel must now compete for jobs with experienced workers whose

capabilities are known to the employers. Obviously, applicants with special skills stand a better chance of obtaining jobs than do inexperienced ones. Hiring in nearly all cases is done on a personal interview basis at Seattle. This applies both to cannery help and to help on fishing vessels. Because of this fact, applicants should not come to Alaska seeking work but should arrange for an interview with the company selected at their Seattle headquarters. If an applicant wishes to take a chance on coming to Alaska to find work, sufficient funds should be available to make the return trip if work is not available. An applicant coming to Alaska should remember that in addition to the expensive transportation, the cost of food and lodging is from 25 to 30 percent higher than similar necessities in the States.

SSR-Fish. No. 141 - Creel Census and Expenditure Studies, Missouri River Basin, 1947-52, by A. J. Nicholson and H. Milton Borges, 31 pp., illus., processed, March 1955. Thirteen creel-census and sport fisherman-expenditure studies were conducted under a variety of conditions in the Missouri River Basin during 1947-52. This paper summarizes data on fisherman use, yield to the fisherman, and fisherman's expenditures. Methods used in the studies are briefly described. Principal characteristics are given for each area, together with information on type and period of coverage, period of estimates, and manner of handling expenditure data.

SSR-Fish. No. 144 - Vertical Distribution of Zooplankton in Central Equatorial Pacific, July-August 1952, by Thomas S. Hida and Joseph E. King, 25 pp., illus., processed, April 1955.

SSR-Fish. No. 149 - Oceanographic Observations in West Coast Florida Waters, 1949-52, by Kenneth T. Marvin, 34 pp., illus., processed, May 1955.

Sep. No. 402 - Experimental Farming of the Soft-Shell Clam, *Mya arenaria*, in Massachusetts, 1949-1953.

Sep. No. 403 - Gulf of Maine Bluefin-Tuna Exploration--1954.

Sep. No. 404 { Development of Voluntary Federal Standards of Grade for Fresh and Frozen Fishery Products.
Literature Review of Factors That May Affect Processed Feeds Quality.
Federal Specifications for Fresh and Frozen Fish Issued.

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

Eggs and Larvae of the Pacific Hake MERLUCCIUS PRODUCTUS, by Elbert H. Ahlstrom and Robert C.

Counts (From Fishery Bulletin 99 of the Fish and Wildlife Service, vol. 56), 38 pp., illus., printed, 30 cents, 1955.

THE FOLLOWING SERVICE PUBLICATION IS AVAILABLE ONLY FROM THE SPECIFIC OFFICE MENTIONED IN THE REVIEW.

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

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.

"Biloxi Shrimp Festival--1955," by Walter F. Fountain, article, Mississippi Game and Fish, vol. 18, no. 10, May 1955, pp. 3 and 8, illus., printed. Game and Fish Commission, Jackson, Miss. Describes the annual shrimp festival at Biloxi, which features the blessing of the fleet--a colorful and impressive ceremony.

(California) Statistical Report of Fresh, Canned, Cured, and Manufactured Fishery Products--Year 1954, Circular No. 29, 15 pp., printed. Marine Fisheries Branch, Department of Fish and Game, Sacramento 14, Calif. This is the 29th consecutive statistical report of fresh and processed fishery products produced in California. The first report was published in 1927 as Circular No. 1. Primary interest in the earlier years centered around the seasonal sardine production. In recent years, due to the failure of the sardine fishery, some of the tables relating to sardines have been eliminated and, to keep pace with the expansion of the industry, separate tables on other fishery products have been included. Preliminary figures on total commercial fisheries catch are also presented. Through the annual publication of these figures, the State Legislature, commissioners, members of the industry, sportsmen and other interested individuals and groups can obtain a picture of trends and developments. The tables are basically the same as in previous years. The list of canning and reduction plants has been slightly modified. Previously, plants which were capable of but did not can or reduce fish were included in the list. In this report only those plants actually operating in 1954 are listed. Plants curing and manufacturing fishery products by means other than canning or reducing to meal and oil

are also included, whereas, those plants handling only fresh fish or shellfish are omitted. Landings of fish in California by the commercial fishing fleet are shown. The catch of each species is separated by region of landing; shipments are not included. The general origin of the commercial catch and the volume of shipments are shown. Shipment figures primarily represent fish received for canning and processing. Total case pack is given for each variety of fish and separated according to container size and type of pack. The pack is listed for the Los Angeles and the San Diego districts and for Central California. The latter includes areas north of the San Luis Obispo County line to the State's northern boundary. Most of the canning reported in the Central California category, however, is from Monterey and the San Francisco Bay area. Other fishery products processed in California are listed. The San Francisco district includes areas north of Santa Cruz County. Information for all production tables was obtained from monthly and annual reports submitted by the industry. Sardine landings and the products produced are shown for a 20-year period. Tables give the total annual case pack of anchovy, tuna, bonito, and yellowtail. Various sizes of containers have been equated to the most common pack size for each variety of fish.

(Canada) Tenth Annual Meeting Fisheries Council of Canada, April 18-20, 1955, 55 pp., illus., printed. Fisheries Council of Canada, P. O. Box 547, Ottawa, Canada. Contains a detailed program of the tenth annual meeting of the Fisheries Council of Canada. Also contains the following articles of particular interest; (1) "The Fish Stick Story," by J. N. Lewis; (2) "A Few Points Regarding Quality," by S. A. Beatty; (3) "The 1954 Fisheries," by W. C. MacKenzie and (4) "Fisheries--A Great B. C. Natural Resource," by P. E. Paulson.

Commercial Fishing Gear and Fishing Methods in Florida, by J. B. Siebenaler, Technical Series No. 13, 47 pp., illus., printed. State Board of Conservation, Tallahassee, Fla. A description in considerable detail of the principal as well as minor commercial fishing gears used in Florida. The fishing gears are classified as entangling, encircling, impounding, dragged, hook and line, and miscellaneous gears. While this is an arbitrary classification of Florida gears, the method of capturing fish has been the main criterion for classification. The author hopes "That a clearer understanding of the construction and the method of fishing of the important types of Florida fishing gear will assist in the framing of better conservation laws. It is further expected that enforcement of the regulations will be improved by the information contained in this bulletin, since enforcement agents and courts will have a better concept of the intent of the regulations, and will have a better legal basis for conviction of infractions with this information at their disposal."

The Conservationist, vol. 9, no. 3, December-January 1954/55, 43 pp., illus., printed, single copy 25 cents. The New York State Conservation Department, Arcade Bldg., Albany 1, N. Y. Among the articles in this issue are: (1) "The Great Lakes Fisheries," by W. Mason Lawrence;

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

(2) "Shiners," by John R. Greeley; and (3) "The Bait Fish Business," by John L. Forney and W. Mason Lawrence.

"Costs of Metal Unit Pen Fish Holds," by W. A. MacCallum, article, Progress Reports of the Atlantic Coast Stations, no. 61, March 1955, pp. 13-20, printed. Fisheries Research Board of Canada, Ottawa, Canada. The results of an economic study showing (1) the costs of wood construction for "wet" fish holds; (2) costs of aluminum alloys (unit-pen construction) installed in "wet" fish holds (maximum use of movable metal boards); and (3) estimated total annual cost of pen boards (based on 1,000 boards). The author states that "the conclusions concerning the costs of refrigerated metals in fish holds are: (1) Information available as to costs of installation and operation of each type of hold indicates that the additional cost of a metal-unit pen-type fish hold may be as little as C\$50 per year to own and operate than the conventional wood-lined hold. Advantages more difficult to assess are the greater ease of handling and cleaning, less labor, and improved quality of the catch. The costs of insulation and mechanical refrigeration of the two holds are about the same. (2) In general, pen boards of extruded aluminum alloy are considerably less expensive than of wood when one considers the high cost of upkeep and of replacement of the wood boards."

Diseases of Fishes of the Western North Atlantic (III. Mortalities of Sea Herring (CLUPEA HARENGUS) Caused by Larval Trematode Invasion), by Carl J. Sindermann and Aaron Rosenfield, Research Bulletin No. 21, 16 pp., illus., printed. Department of Sea and Shore Fisheries, Vickery-Hill Building, Augusta, Maine, November 1954.

Economic Factors in Catch Fluctuations, by H. Scott Gordon, 8 pp., printed. (Reprint from J. Fish. Res. Bd. Canada, vol. 12, no. 1, 1955, pp. 85-92.) Fisheries Research Board of Canada, Ottawa, Canada. Correlation methods were employed in a statistical analysis of the relation between catch fluctuations and economic factors for the principal Canadian commercial species of the Atlantic and Pacific coasts. The results indicate that the major part of catch fluctuations are ascribable to economic factors in the cases of Atlantic herring, "sardines," cod (tentative), and Pacific herring. Economic factors appear to have had no significant effect on the catches of Atlantic lobsters and Pacific halibut and salmon.

Factors Affecting the Efficiency of Restrictive Regulations in Fisheries Management. II--Bag Limits, by K. Radway Allen, (Reprinted from New Zealand Journal of Science and Technology, Section B, vol. 36, no. 4, pp. 305-334, January 1955), illus., printed. Fisheries Laboratory, Marine Department, Wellington, N. Z. The imposition of a limit on the number of fish that may legally be taken by one angler in one day is one of the commonest methods of controlling the exploitation of sporting fish. This paper examines the ways in which it is possible for bag limits to affect fish stocks and angling catches, and considers briefly the extent to which these effects actually occur in typical New Zealand trout fisheries.

"The 'Fairtry' Story is Told," by W. Lochridge, article, World Fishing, vol. 4, no. 2, February 1955, pp. 55-59, illus., printed, single copy 2s. 6d. (35 U. S. cents). John Trundell Ltd., Temple Chambers, London, E. C. 4. A detailed account of Britain's first fully-equipped factory trawler, Fairtry, especially built to carry out the complex duties involved in the catching and processing of fish at sea on the distant fishing grounds. The general operational details, quick-freezing methods, and trawling operations are discussed. The ship operated off Newfoundland and Greenland, and from the very beginning it was considered "a good fishing ship."

The Family Circle Fish and Poultry Cookbook, 147 pp., illus., printed, \$1. The Family Circle, Inc., 25 W. 45th St., New York 36, N. Y., 1955. An excellent and very beautifully illustrated cookbook giving directions for cooking fish fillets and fish sticks, fresh-water and salt-water fish, shellfish, poultry and game, and sauces. It also discusses the nutritive value of fish and shellfish, and gives the market forms and a buying guide for fish and shellfish. Many other useful instructions are given, such as the home care of fish and shellfish, and how to broil, fry, deep-fat-fry, stuff and bake, poach, plank, and steam fish.

"Fish--a Neglected Protein Food," by Ida Bailey Allen, article, Today's Health, vol. 33, no. 2, February 1955, pp. 26-27, 62-67, illus., printed, single copy 35 cents. American Medical Association, Chicago 10, Ill. Discusses the nutritive value of fish and shellfish and shows how an average serving of fish or shellfish supplies enough animal protein to satisfy the requirements of the meal. Also discusses the use of fish in special diets, and gives many suggestions as to the preparation of this food which is as rich in high-quality proteins as meat and as easy to prepare.

The General Agreement on Tariffs and Trade (GATT), Department of State Publication 5813, Commercial Policy Series 147, 34 pp., printed, 20 cents. Department of State, Washington, D. C. (For sale by the Superintendent of Documents, Government Printing Office, Washington 25, D. C.) A brief explanation, in laymen's language, of each article of the General Agreement on Tariffs and Trade as it now stands, and proposed amendments. The GATT is an international agreement among virtually all the important trading nations of the free world, including the United States.

The GATT is the principal instrument through which the United States cooperates with major trading nations of the free world in an effort to reduce trade barriers. It consists, first, of schedules or lists of "concessions" (i. e., products on which tariffs have been reduced or bound against increase), and second, a code of agreed rules or "general provisions," under which the import and export trade of the participating countries will be conducted. Third, through periodic meetings of representatives of the participating countries, GATT provides a forum for the discussion and settlement of mutual problems concerning international trade.

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

Thirty-four countries participate in the GATT, including, besides the United States, the countries of the British Commonwealth, most of the countries of Western Europe, and some Latin American and Asiatic countries. These countries together account for about 80 percent of the international trade of the whole world.

There have been many important changes in economic conditions since 1948 when the GATT was first put into effect. After more than 7 years operation it seemed to many participating countries that the time had come for a thorough review of the substantive and organizational provisions of the GATT. This review has just been completed in Geneva after several months of intensive negotiations between representatives of the countries participating in the Agreement. This review has resulted in proposed amendments to strengthen the Agreement and to provide a permanent organization to administer it.

The amendments to GATT will come into operation after approval by the participating governments. In the United States the organizational provisions, as renegotiated at Geneva recently, will be submitted to Congress for its approval.

How to Price a New Product, by Joel Dean, Management Aids for Small Manufacturers no. 62, 4 pp., processed. Small Business Administration, Washington 25, D. C., April 1955.

(Institute of Seaweed Research) Annual Report for 1954, 44 pp., illus., printed. Institute of Seaweed Research, Inveresk, Midlothian (Available from The Central Press (Aberdeen) Ltd., Scotland), 1955. The annual Director's report of progress at the Institute on the research and development of the seaweed of the British Isles, includes the following principal developments:

Another of the repeated surveys to determine the seasonal and cyclical changes undergone by the Laminaria (brown seaweed) sublittoral beds of the coast of Northern Scotland, and adjacent islands was completed. A few of the interesting observations may be cited here. A five-year survey of both seaweed density and cover indicated considerable decrease from the time of the first survey to that of the second in each area and, thereafter, the trend was reversed or halted. Sampling surveys with the belt harvester were conducted at 2 to 5 fathoms to determine their commercial feasibility. Concrete slabs laid seven months previously in North Arran were supporting a large number of young plants of Laminaria at the exceptionally high density of 50-60 tons per acre. This indicated that only about one percent survive to reach maturity.

In the field of microbiology of seaweeds, studies reported included the isolation of cell-free extracts of enzymes capable of hydrolyzing laminarin and the alginates, identifying various organisms isolated from seaweed, bactericidal effect of propylene oxide and sodium ethyl mercuthiosalicylate, and marine algae as a source of antibiotics and as a substrate for the growth of microorganisms.

Studies in plant physiology included the culture of marine micro algae free of bacteria and analyses of Porphyridium (red algae) grown in aerated tanks, having a crude protein content of 43.6 percent.

Harvesting equipment investigations revealed that by slightly modifying a motor fishing vessel fitted with twin belts, the capacity of a single harvesting ship would exceed 5,000 tons of fresh Laminaria per year.

Several improvements were made in the suction-type harvester studied in scale model. However, much remains to be done before this system can be translated to full scale.

Harvesting ship studies indicated that specially-designed ships were not necessary, for slightly modified conventional motor fishing vessels proved to be adequate for this purpose.

Additional experiments in process development consisted of improving methods of extracting the algal chemicals, alginic acid, mannitol, laminarin, and fucoesterol. Drying of seaweed was tested using thermal method alone, and in combination with a grinding machine. Fundamental studies of liquid-solid extraction for the separation of constituent products from seaweed were also begun.

Chemical studies included pigment and vitamin assay, proximate analyses, techniques for the extraction and separation of algal chemicals, the chemistry of seaweed constituents, use of algal chemicals in medicine, and the mode of concentration of radioactive material by marine algae.

No significant effect on milk yield or fat percentage could be demonstrated in dairy cows fed ensiled seaweed.

Feeding a 5-percent seaweed meal to chicks as the sole source of vitamins A and D was found to supply their requirements up to the 16 weeks' stage.

Inconclusive results were obtained on the benefits of seaweed meal as a top dressing for turf and in seed beds.

A list of publications of staff members and collaborators totaling some 26 articles in print and 7 in press is included.

--E. A. Pachtman

(International Pacific Salmon Fisheries Commission) Annual Report 1954, 44 pp., illus., printed. International Pacific Salmon Fisheries Commission, New Westminster, Canada, 1955. A report of the Commission, an international agency appointed under a convention between Canada and the United States for the protection, preservation, and extension of the sockeye salmon fisheries in the Fraser River system. Discussed in this report are the various activities of the Commission during 1954: the regulations, the United States fishery, the Canadian fishery, Indian catch statistics, escapement, the 1955 cycle, rehabilitation of barren areas, watershed protection, and general investigations.

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

Investigation of the Lee County Bay Scallop Fishery, by James F. Murdock, Preliminary Report 55-13, 12 pp., processed. The Marine Laboratory, University of Miami, Coral Gables, Florida, March 1955. The results of an investigation in 1953 to obtain information on the biology of the commercial bay scallop in Lee County, the fishing and handling methods, and the economics of the fishery. It contains information on the spawning, growth, and length of life of the bay scallop; a brief history of the fishery; production statistics for 1928-53; gear; boats; fishing methods; number of fishermen; processing and handling; and management of the fishery. The ultimate purpose of the survey was to assist the State Board of Conservation in deciding whether regulation of this fishery is desirable.

Investigations Under The "Escape Clause" of Trade Agreements (Outcome or Current Status of Applications Filed with the United States Tariff Commission for Investigations under the "Escape Clause" of Trade Agreements, as of May 12, 1955), 33 pp., processed. U. S. Tariff Commission, Washington 25, D. C., May 1955.

Investigations Under the "Peril Point" Provision (Investigations Conducted by the United States Tariff Commission under the Provisions of Section 3 of the Trade Agreements Extension Act of 1948 and Section 3 of the Trade Agreements Extension Act of 1951, as of April 15, 1955), 8 pp., processed. U. S. Tariff Commission, Washington 25, D. C., April 1955.

(Japan) Scientific Reports of the Hokkaido Fish Hatchery, vol. 9, No. 1, 2, 207 pp., illus., printed. Hokkaido Fish Hatchery, Nakanoshima, Sapporo, Japan, Dec. 1954. Among the articles included are: (1) "Some Observations on the Natural Spawning of the Spring Herring in the Western Coast of Hokkaido. II. Observations Made by Diving into Water on the Natural Spawning Ground of the Herring," by Tadashi Tamura, Shyoichi Okueo, Tadas-hi Fujita, and Takeo Watabe; (2) "The Affinity of the Spawning Type of Salmon, *Oncorhynchus keta* Walbaum, Which are Found in the Rivers of Hokkaido," by Yoshinobu Oya; (3) "Investigations on the Numbers of Salmon Fry Produced by Means of Artificial Hatching. I. The Loss of Salmon Eggs. II. Estimation of Number of Salmon Eggs Adopted," by Eiichi Sakano; (4) "On the Common Names of the Salmonoid Fishes and Their Related Forms Found in Northern Japan and Its Adjacent Waters," by Toyohiko Hikita; and (5) "On the Herring Found in Akkehi Bay," by Eiichi Sakano.

Ninth Census of Canada, 1951, Fisheries, vol. 9, 160 pp., illus., printed, C\$3.00. Dominion Bureau of Statistics, Department of Trade and Commerce, Ottawa, Canada, 1954. This report deals with the first Canadian census of the fisheries since 1911. It includes the number and status of fishermen; type and size of fishing craft; inventory of fishing gear and shore equipment; landings, value, and disposition of fish and shellfish; revenues and expenditures. Data are given for Canada and for each province.

Noise Analysis with a Heterodyne-Type Sonic Analyzer, by J. D. Richard, Jr., P. F. Smith, and F. H. Stephens, 6 pp., illus., printed, Marine Laboratory, University of Miami, Coral Gables, Fla. (Reprinted from Transactions of the I.R.E. Professional Group on Audio, vol. AU-3, no. 2, March-April 1955, pp. 37-42.)

"Occurrence of Choline in the Shellfish, *Callista Brevisiphonata* Carpenter," by Motokazu Asano, article, The Tohoku Journal of Agricultural Research, vol. 4, no. 3-4, March 1954, pp. 239-250, illus., printed. Faculty of Agriculture, Tohoku University, Sendai, Japan.

Offshore and Newfoundland Scallop Exploration, by L. M. Dickie and L. P. Chiasson, General Series Circular No. 25, 4 pp., illus., printed. Fisheries Research Board of Canada, Atlantic Biological Station, St. Andrews, N. B., March 1955. This circular gives details of scallop explorations on the banks off Nova Scotia and Newfoundland in 1953. It shows the good fishing beds found, as well as areas explored where scallops were not found in commercial quantities. It also describes areas which, although not worth fishing now, seem worth watching. The authors state that, "From the results of these explorations we must conclude that scallops are not abundant on the offshore Nova Scotian and Newfoundland banks. The development of a large offshore scallop fishery in the near future is therefore unlikely. The boats left the offshore St. Pierre Bank about July 1954 when they were still catching more than 1,500 pounds of scallop meat per day, because fishing was better inshore in Port au Port Bay. But the known inshore Newfoundland beds are small and catches will soon drop. A continuation of the fishery will therefore depend on a combination of the inshore and offshore areas. However, results are not entirely discouraging and further expansion is possible through new discoveries or new sets of young scallops on areas such as Sable Island."

Outcome or Current Status of Investigations Conducted by the United States Tariff Commission Under the Provisions of Section 332 of the Tariff Act of 1930, Since January 1, 1952, as of March 1, 1955, 9 pp., processed. United States Tariff Commission, Washington 25, D. C., March 1955. This compilation summarizes information on the investigations that the United States Tariff Commission has conducted under the provisions of section 332 of the Tariff Act of 1930, since January 1, 1952. Section 332 of the Tariff Act of 1930 directs the Tariff Commission to place at the disposal of the President, the Committee on Ways and Means of the House of Representatives, and the Committee on Finance of the Senate, whenever requested, all information at its command. It also directs the Commission to make such investigations and reports as may be requested by the President, by either of the above-mentioned committees, or by either House of Congress. A report on the 1952-53 tuna investigation is included.

A Prototype Instrument for the Automatic Measuring and Recording of Conductivity and Temperature

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

Versus Depth in Oceanic and Estuarian Waters, Preliminary Report 55-14, January 1955, 31 pp., illus., processed. The Marine Laboratory, University of Miami, Coral Gables, Florida.

(Scotland) Observations on the Recaptures of Tagged Lobsters in Scotland, by H. J. Thomas, Scottish Home Department Marine Research No. 2, 14 pp., illus., printed, 2s. 6d. (35 U. S. cents). Her Majesty's Stationery Office, Edinburgh, Scotland, 1955. Lobster fishing is of considerable importance over large areas of the Scottish coast. In view of this and of the revision in the legislation governing the landing of lobsters in Britain, which came into force in 1951, special tagging experiments were carried out from the Marine Laboratory at Aberdeen. A design for tagging experiments to estimate the annual fishing mortality, particularly in regard to length and class of lobster and season of tagging, is described. The annual fishing mortalities off the southeast Scottish coast in the seasons 1950/51 and 1951/52 were about 50 percent. Returns of tags suggest an over-all annual fishing mortality of about 15 percent for the areas investigated off the Scottish west coast and of about 16 percent around Orkney. In areas of limited fishing intensity, the marked nonmigratory habits of the lobster may result in wide local differences in mortality within relatively small areas.

(Scotland) Report on the Fisheries of Scotland, 1954, Scottish Home Department Cmd. 9416, 67 pp., printed, 2s. 6d. net (35 U. S. cents). Her Majesty's Stationery Office, Edinburgh, Scotland. This is a report of Scotland's fisheries, with statistical data for the year 1954. Contains total production figures by species and by port (both comparative and historical), and information on the number of boats, personnel, and methods of capture. Production and value of lobsters, mussels, oysters, and scallops, and fishery byproducts are also included. Sections are also devoted to discussions of the herring, white fish, and salmon fisheries, marine fisheries law enforcement, scientific investigations, and harbor maintenance.

Studies on Fish Parasites of Lake Huron and Manitoulin Island, by Ralph V. Bangham, 12 pp., printed. (Reprinted from The American Midland Naturalist, vol. 53, no. 1, pp. 184-194, January 1955.) University of Notre Dame Press, Notre Dame, Ind.

Survey of the Oyster Beds (CRASSOSTREA VIRGINICA) in the Sheepscot River and its Tributaries, 1954, by Louis N. Taxiarchis, Robert L. Dow,

and Frederick T. Baird, Jr., Sheepscot Area Report No. 1, 14 pp., illus., printed. Department of Sea and Shore Fisheries, Augusta, Maine, December 1954. This report of the Sheepscot River oyster beds survey (1954) is the first of several papers covering various phases of the cooperative ecological study of the Sheepscot area being carried on by the U.S. Fish and Wildlife Service, the Atlantic Sea Run Salmon Commission, the Maine Department of Inland Fisheries and Game, and the Maine Department of Sea and Shore Fisheries. In addition to a summary of survey results with accompanying map and graph, a brief historical outline of other oyster surveys and experiments in Maine waters from the early 1900's to date is included.

"The Technique of Ring-Netting," article, World Fishing, vol. 4, no. 4, April 1955, pp. 144-146, illus., printed, single copy 2s. 6d. (35 U. S. cents). John Trundell Ltd., Temple Chambers, Temple Avenue, London, E. C. 4.

The Tohoku Journal of Agricultural Research, vol. 5, no. 1, 72 pp., illus., printed, September 1954. Faculty of Agriculture, Tohoku University, Sendai, Japan. Contains, among others, the following articles: "Breeding of the Olympia Oyster in Tanks and Culture Experiments in Japanese Waters," by Takeo Imai, Seiichi Sakai, Hiroshi Okada, and Tetsuzo Yoshida; and "A New Color Test for the Measurement of Freshness of Fish by Volatile Bases Estimation," by Yasuhiko Tsuchiya and Mitsu Kayama.

"Your Guide to Electrical Fishing," by J. G. Gattley, article, World Fishing, vol. 4, no. 3, March 1955, pp. 125-127, illus., printed, 2s. 6d. (34 U. S. cents) per copy. John Trundell Ltd., Temple Chambers, Temple Avenue, London, E. C. 4, England. One of 3 articles specially written to add to the industry's practical knowledge of electrical fishing.

"Your Guide to Electrical Fishing," by J. G. Gattley, article, World Fishing, vol. 4, no. 4, April 1955, pp. 166-169, illus., printed, single copy 2s. 6d. (35 U. S. cents). John Trundell Ltd., Temple Chambers, Temple Avenue, London, E. C. 4. Part 2 of a 3-part article.

"Your Guide to Electrical Fishing," by J. G. Gattley, article, World Fishing, vol. 4, no. 5, May 1955, pp. 202-205, illus., printed, single copy 2s. 6d. (35 U. S. cents). John Trundell Ltd., Temple Chambers, Temple Avenue, London, E. C. 4. Part 3 of a 3-part article.

