

Recent publications of interest to the commercial fishing industry are listed below.

FISH AND WILDLIFE SERVICE PUBLICATIONS

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

CFS - CURRENT FISHERY STATISTICS OF THE UNITED STATES AMD ALASKA.

FL - FISHERY LEAFLETS.

- STATISTICAL SECTION LISTS OF DEALERS IN AND PRO-DUCERS OF FISHERY PRODUCTS AND BYPRODUCTS.

SSR.-FISH. - SPECIAL SCIENTIFIC REPORTS--FISHERIES LIMITED DISTRIBUTION) .

SEP .- SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.

Title CFS-852 - Maine Landings, by Counties, 1952 Annual Summary, 13 p. CFS-862 - Maine Landings, February 1953, 4 p.

CFS-864 - Massachusetts Landings, February 1953,

CFS-865 - Mississippi Landings, February 1953, 2 p. CFS-866 - Florida Landings, February 1953, 6 p.

CFS-867 - Texas Landings, March 1953, 4 p. CFS-868 - Fish Meal and Oil, March 1953, 2

CFS-870 - New Jersey Landings, January 1953, 2 p. CFS-871 - New Jersey Landings, February 1953, 2 p. CFS-873 - New Jersey Landings, March 1953, 2 p. CFS-874 - Maine Landings, March 1953, 4 p.

CFS-875 - Mississippi Landings, March 1953, 2 p.

CFS-876 - Pacific Coast States Fisheries, 1951 Annual Summary, 7 p.

CFS-880 - Texas Landings, April 1953, 4 p. FL -413 - Common or Local Names of Commercial Fish and Shellfish of Alaska, 4 p.

SL - 21 - Wholesale Dealers in Fishery Products, California (Revised), 9 p.

Firms Canning (Revised):

SL-101 - Salmon, 1952, 4 p. SL-106 - Shad or Shad Roe, 1952, 1 p.

SL-111 - Clam Products, 1952, 2 p. SL-112 - Shrimp, 1952, 2 p.

SL-113 - Crab Meat, 1952, 2 p.

SL-117 - Pacific Sea Herring, 1952, 1 p.

SL-119 - Squid, 1952, 1 p. SL-120 - Anchovies, 1952, 1 p.

Firms Manufacturing (Revised):
SL-151 - Fish Meal, Scrap, Body & Liver Oils, 1952,

SL-153 - Fish Glue and Isinglass, 1952, 1 p.

SL-154 - Seaweed Products, 1952, 1 p. SL-156 - Pearl Essence, 1952, 1 p.

SL-161 - Producers of Packaged Fish, 1952 (Revised),

Number Title Sep. No. 348 - Status of New England Sea-Scallop Fishery.

Sep. No. 349 - Salmon Tagging by the 1952 Japanese North Pacific Fishing Expedition.

Sep. No. 350 - Technical Note No. 26-Glazing Brine-Frozen Salmon.

SSR-Fish. No. 93 - Directing the Movement of Fish with Electricity, by Alberton L. McLain and Willis L. Nielsen, 27 p., illus., processed, January 1953. Describes the development of alternating current electrical devices which appear most promising as a means of controlling the parasitic sealamprey in the Great Lakes. Observations on these electrical devices demonstrated some need for developing a means of accelerating the capture and transfer upstream of fish migrating during the period of sea-lamprey movement. This study represents one phase of the work undertaken to solve that problem. The experiment was based on the assumption that local food and game fish would move involuntarily toward the positive electrode when exposed to an appropriate type of direct current introduced into the water. If fish movement could be thus controlled with a simple accessorymechanism (to the AC sea lamprey control devices), it would resolve the problem in some stream locations of providing for uninterrupted migrations of fish while blocking or otherwise destroying the sea-lamprey runs. The first part of this investigation was directed toward determining the type of electric current that would be most effective in controlling the movements of fish. The second phase constituted the investigation of those factors which would affect the efficiency of an electrical leading device as it might be used as an aid in trapping fish to minimize the blocking effect of an alternatin current, electrical sea-lamprey barrier.

This study has revealed several factors which appear to be obstacles to the practical use of

pulsed direct current as an effective means of leading desirable fish away from sea-lamprey control structures. Size selectivity is without doubt the major limiting factor. The highly diverse physical conditions encountered in streams over a large area also offer a number of obstacles. Still another problem is presented by the possibility that a large number of fish may turn away upon encoun-

tering the fringe of the electric field as was indicated by the tests in the Little Ocqueoc River. It may be possible to overcome this latter problem by intermittent operation on a critically times basis, or it may be that the persistence of upstream migrants is great enough to result in penetration of the electrical field. These and comparable problems may be solved by further study.

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

Fluctuations in the Fisheries of State of Michigan

Waters of Green Bay, by Ralph Hile, George F.

Lunger, and Howard J. Buettner, Fishery Bulletin 75 (From Fishery Bulletin of the Fish and Wildlife Service, Volume 54), 37 p., illus., printed, 25 cents, 1953. Production records for 1885, 1891-1908, and 1929-49, indicate cyclic fluctuations for several important species of fish. The 1929-49 fluctuations of abundance were considerable for all principal species. In the late years of the period, lake trout were scarce as the result of sea-lamprey depredations, but the abundance levels of whitefish, lake herring, and walleyes were extremely high; at the same time the smelt was showing good recovery from the disastrous 1943 mortality. With certain exceptions, correlations between fluctuations of fishing intensity and the abundance of individual species were low, probably because most operations are based on several species and hence not ordinarily sensitive to changes in the

abundance of a particular one. A combination of intensive fishing and high abundance of three principal species carried the production to 52 million pounds in 1947 and the modern record high of between 71 and 8 million pounds in 1948 and 1949. With this prosperity has developed a most difficult situation arising from friction between local commercial fishermen and newcomers from other areas and from the activities of sport fishermen and resort owners who believe that drastic restrictions on commercial fishing will insure a perpetual high level of abundance of walleyes. Statistics for 1950 are given in a supplement. This paper on the Green Bay fisheries is documentary and its discussions are generally descriptive rather than analytical. Its primary purpose is to make the more significant statistical data available in concise form to investigators, conservation officials, sportsmen, industry, and others interested in the future of the fisheries.

MISCELLANEOUS PUBLICATIONS

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

Alaska's Salmon Industry, 14 p., illus., printed.

Alaska Salmon Institute, Ketchikan, Alaska. Contains a brief history of the salmon industry, and discusses the life history of the Alaska salmon. Also describes the study of the salmon migrations being conducted by the Fisheries Research Institute, how Alaska salmon are caught, and how they are canned. Favorite recipes for cooking Alaska salmon are also included.

Annual Report of the United States Government to the Food and Agriculture Organization, 1952, 23 p., processed. United States-FAO Inter-Agency Committee, washington, D. C., April 1953. This report covers the actions taken by the United States Government in implementing six policy resolutions passed at the Sixth Session of the Conference, and other developments in 1952 in the subject-matter fields to which each of the resolutions relate. The subjects covered are: development planning, education and extension services, reform of agrarian structures, investment and credit for agricultural production, forest policy, and nutrition programs. A brief discussion of fishery developments in 1952 is included.

Atlantic States Marine Fisheries Commission (Joint Meeting, North Atlantic Section and Middle Atlantic Section, March 12, 1953), 7 p., processed.
Atlantic States Marine Fisheries Commission, Mt.

Vernon, New York. Includes discussions of projects dealing with scallops, butterfish, proposed compact between Massachusetts and Connecticut to foster the return of Atlantic salmon in the Connecticut River, current regulations concerning dragging near outside beaches and in inland waters, tidelands, size limits on fluke, clam sizes, striped bass, and pollution off Cape May, N. J.

Bonito, Canned in Oil; and Tuna and Bonito, Canned not in Oil (Report on Escape-Clause Investigation Under Section 7 of the Trade Agreements Extension Act of 1951), 35 p. plus appendix of 10 statistical tables, processed. United States Tariff Commission, Washington 25, D. C., November 1952. Reports the findings and conclusions of the Tariff Commission in the "Escape-Clause" investigation for canned tuna in brine, bonito in oil and not in oil. The Commission found (Commissioners Brossard and Gregg dissenting) that these products are not being imported in such increased quantities as to cause or threaten serious injury to the domestic industry producing like or directly competitive products. Accordingly, in the judgement of the Commission, no sufficient reason existed for a recommendation to the President for the withdrawl or modification of the concessions made in trade agreements.

The Commission's report includes statements of the majority and minority views and an appendix

of tables of supporting information. The majority report, among its considerations, states that there is little or no domestic production of canned tuna in brine, bonito in oil and not in oil. That these products differ in varying degrees from and command lower prices than tuna canned in oil which constitutes almost the entire domestic production of canned tuna. Because of the availability of these products, the total domestic consumption of all canned tuna and bonito products was presumed to be much larger than it would be if it were confined to tuna canned in oil. The marked increase in domestic consumption of the products concerned in recent years was not regarded as having displaced equivalent quantities of canned tuna in oil. It was further stated that to a considerable degree these lower-priced products have competed more with the lower-priced canned fish of other species (as well as with a variety of other protein foods) than they have with canned tuna in oil.

After 1949, total imports of all canned tuna and bonito products were on a very much higher level than in 1949 or in prewar years. Domestic production increased from an average of 68.8 million pounds annually in 1935-39 to 166.8 million pounds in 1950-51. In 1934-39, the apparent consumption (domestic production plus imports) averaged 77.4 million pounds annually of which 88.8 percent was supplied by domestic production and 11.2 percent by imports. The annual average for 1950-51 totaled 202.6 million pounds of which 82.3 percent was supplied by domestic production and 17.7 percent by imports.

Data supplied the Commission by the California Fish Canners Association on the financial results of the operations of 12 concerns whose total output accounts for about 80 percent of the domestic production of canned tuna showed that profits in the tuna-canning industry in the early postwar years appear to have been at an abnormally high, though declining level. The data submitted for four concerns which could segregate tuna operations from others indicated that the ratio of composite profits (before taxes) to net worth fell from 63 percent in fiscal year 1946/47, to 29 percent in 1948/49, to 4 percent in 1949/50. In the fiscal year ending 1951, these firms showed a net loss of 2 percent and in fiscal year 1952, a 19 percent loss. The Commission reported that the abnormal situation in 1950, however, was not attributable solely to the large importation of canned tuna. Tuna-fishing operations of United States vessels resulted in a record catch nearly 60 million pounds higher than in the next highest year (1949). The tuna-canning industry also imported 57 million pounds of fresh or frozen tuna, the highest level recorded up to that time. In consequence, the domestic production of canned tura and bonito reached the unprecedented height of 174 million pounds, thus creating an exceptionally large supply. Prices rose early in 1950 at the beginning of the Korean war and remained relatively high through May 1951, but thereafter declined substantially until the beginning of 1952, after which continued improvement appeared to the Commission to be in prospect.

From the foregoing, it appeared that any serious injury, or threat thereof, to the domestic tuna canning industry which may have resulted from increased imports was of temporary char-

acter and occurred in 1950/51. The situation in those years, insofar caused by imports was not caused by imports of the products covered by this investigation but by abnormally large imports of canned tuna in oil in the last half of 1950, when domestic production of canned tuna was also at its record height based upon a record domestic catch of tuna and a record importation of fresh and frozen tuna.

The Commission concluded that no finding of whether increased imports of canned tuna in brine and bonito in oil or brine are causing or threatening serious injury to the domestic tuna fishery is required under Section 7, unless tuna fishing in the United States be regarded as an integral part of the domestic tuna-canning industry. Even if it should be so regarded, the Commission indicated there would be no basis on which it could make a finding that increased imports of canned tuna and bonito are causing or threatening serious injury to the fishing branch of the industry. The direct import competition encountered by the domestic tuna fishery was believed to result from imports of fresh and frozen tuna which enter free of duty.

-- A. M. Sandberg

(Canada) Summary of Fisheries Statistics of British Columbia, 1952 (Preliminary), 12 p., processed. Department of Fisheries of Canada, Vancouver 5, B. C., April 10, 1953. Includes statistical tabulations for the period 1948-52 of the British Columbia pack of canned salmon by species, production of herring byproducts, the production of fillets, and a graph showing the landed and marketed value of fishery products for 1940-52. Also presents statistical data on utilization by individual species and marketed values; detailed information on the salmon pack; and the number of boats and gear and their values.

The Cold Chain in the U.S.A. (Report of a Group of European Experts), Part II. Technical Survey, 450 p., illus., printed, US\$6.50. Organization for European Economic Cooperation, 2 Rue Andre-Pascal, Paris - XVI (or available from Columbia University Press, International Document Service, 2960 Broadway, New York 27, N.Y.), 1952.

A group of 50 experts from 12 Western European countries, including professors, economists, dieticians, and specialists in the transport of fruit, vegetables, and fish, in cold-storage operations, and construction engineers for refrigeration equipment have prepared this comprehensive report of their 60-day tour of food-refrigeration facilities in the United States. Subject matter covered includes descriptions and illustrations of refrigeration machinery, cold-storage structures, and refrigerated rail and truck transport units. One section takes up each of the principal applications of refrigeration to foodstuffs, as fruits, vegetables, concentrated juices, meat, poultry, dairy products, fish, and precooked foods. The major research institutions in these fields are listed, with brief mention of the program of each.

Chapter 32 summarizes direct observations made of the fishery industries in Boston and Gloucester, Massachusetts; Terminal Island and Monterey, California; and Seattle, Washington. These centers process haddock, cod, ocean perch, tuna, sardines,

mackerel, salmon, and halibut. Indirect and incidental material was also obtained at several major inland fish-distribution centers, especially on transport, and wholesale and retail storage and sales methods for fish.

The tour was not specifically for a study of fish refrigeration, and the fish section may have suffered accordingly through the limited time available, the relatively small segment of the industry visited, and the consequent restricted background of observation against which the writers were obliged to form their recommendations.

The book is an excellent compilation of much pertinent information heretofore only available from a number of widely scattered sources and often in fragmentary condition. The comparisons of United States methods and ideas with those of the European countries throughout the book are significant. The report should become a ready reference, especially for workers in countries where United States trade periodicals and scientific literature are difficult to obtain.

-- Charles Bulter

The Complete Book of Home Freezing, by Hazel Meyer, 456 p., illus., J. B. Lippincott Co., New York, N. Y., 1953. The main purpose of this book is to assist the homemaker in purchasing, planning, preparing, and packaging fresh foods for the home freezer; and to suggest various ways of cooking them after they are removed from frozen storage. The various types of home freezers, their advantages and disadvantages, and how to take care of them are discussed. Most of the book deals with how to handle and freeze the various types of foods. A chapter is included on how to freeze and handle fish and shellfish-how to clean fish; freezing a whole large fish; freezing small fish, steaks, pieces, and fillets; recommended maximum storage periods; freezing shellfish; the difference between lean and fat varieties; packaging; and thawing times are some of the subjects covered in this chapter. A chapter is devoted to how to handle and cook food removed from the freezer, while another presents recipes for the freezer. Some fish and shellfish recipes are included.

Dietetic Canned Foods, 62 p., printed. Research Laboratories, National Canners Association, Washington, D. C., 1953. The bulletin provides general background information about dietetic canned foods and their nutritional significance, to provide the medical profession, the public, and the canning industry with specific data obtained on dietetic canned foods as the result of the research program sponsored jointly by the National Canners Association and the Can Manufacturers Institute. It points out to canners and other interested parties some of the precautions necessary in the production and marketing of these foods. The report contains an appendix of three tables on: (1) Proximate Composition of Fruit and Vegetable Products Canned without Added Salt or Sugar, (2) Sodium Values of Fruits and Vegetables, and (3) Potassium Values of Fruits and Vegetables Canned Without Added Salt or Sugar. Included also is a selected bibliography containing 31 references.

-F. T. Piskur

Fisheries Technology Literature, Supplement to World Fisheries Abstracts Vol. 3 (December 1952), 44 p. of abstracts, processed. Food and Agriculture Organization of the United Nations, Rome, Italy. The Supplement combines abstracts of older texts as well as more recent publications in the field of fisheries technology. The material is printed so that the cards maybe cut out and filed in the "World Fisheries Abstracts" file. The issue is particularly valuable as a bibliographic reference work.

-- F. T. Piskur

(Institute of Seaweed Research) Annual Report for 1951, 35 p., illus., printed. Institute of Seaweed Research, Inveresk, Midlothian, Scotland. This is the 1951 Annual report of the Director of the Institute of Seaweed Research. It includes a short history of the Scottish Seaweed Research Association. The Association was formed in June 1944 at the instigation of a number of Government departments, semi-official bodies, and private individuals and organizations with the object of providing basic scientific and technical data which it was hoped would aid the development of an industry based on indigenous seaweed resources. Early in 1951 the Government took over sole financial responsibility for the operation of the Institute and on June 30, 1951, the Scottish Seaweed Research Association was dissolved and its place taken by the Institute of Seaweed Research. The report describes the operation, program, and research facilities of the Institute. Included are progress reports on the phycology, microbiology, algal chemistry, chemical engineering, mechanical engineering, and utilization of seaweed resources. Of particular interest is the bibliography of publications of the Institute from 1946 through 1951 and a list of reports submitted for publication.

-F. T. Piskur

"Official Common Names of Certain Marine Fishes of California," by Phil M. Roedel, article, California Fish and Game, April 1953, vol. 39, no. 2. pp. 251-62, printed. California State Fisheries Lab-oratory, Terminal Island Station, San Pedro, Calif. Contains common and scientific names of certain marine fishes of California. In general, names have been given only to species likely to be caught by sport and commercial fishermen. A new feature to the official list is the sanctioning of a few alternative names, where two vernaculars are applied to the same fish in California and either name will lead to ready identification of the species in question. The preferred name is given primary listing. Another departure from previous lists lies in the use of optional attributives. These will be found enclosed in parentheses which indicate that another species with the same vernacular is found outside of the State's boundaries. Such attributives need not be used unless their omission might, in any given report or record, result in confusion with a species found elsewhere.

The Rutgers Food Saver, by Walter A. Maclinn, 127 p., printed. Rutgers University Press, New Brunswick, N. J., 1952. This book tells the homemaker how long and at what temperature it is safe to keep each food; how to store food so that it stays fresh; how to tell if it's still good; and what to do about it. Covers all types of foods, including fishery products. The first part of the book dis-

cusses saving food, quality loss and spoilage and how to minimize them, and causes for food poisoning. The reference charts and commentaries, which make up most of the book, deal with foods and familiar food combinations. Each chart is divided into five sections: "How to Store;" "Approximate Time Limit for Storage; "Evidence of Quality Loss;" "Danger Signals;" and "Suggestions for Dealing with Quality Losses and Spoilage." The charts on fish and shellfish include fresh fish; cooked fish and fish salads; bisques, broths, chowders, stews, and soups; unopened canned fish; opened canned fish; frozen fish; light-smoked fish; heavy-smoked fish; dried fish; and fish pickled with vinegar, wine, and/or sour cream. Among the other foods covered are sandwiches, soups, eggs and egg dishes, cheese and cheese dishes, poultry, meat, fruits, vegetables, pies and puddings, and a number of others.

Third Annual Report On Exchange Restrictions, 1952, 236 p., printed. International Monetary Fund. Washington, D. C. This is the third annual report of the Fund's transitional arrangements for retention and operation of exchange restrictions. Part I of the report is largely devoted to procedure followed in consultations being held to consider the restrictions. Part II summarizes the developments in restrictions and their application, and surveys the restrictions by countries. One of the purposes of the International Monetary Fund is "To assist in the establishment of a multilateral system of payments in respect of current transactions between members and in the elimination of foreign exchange restrictions which hamper the growth of world trade." The Report states that for the postwar transitional period, the Fund Agreement provides that member countries may maintain and adapt to changing circumstances restrictions on payments and transfers for current international transactions, without the Fund's approval which would otherwise be required. The large majority of the members have availed themselves of these arrangements. The Agreement provides that members shall withdraw exchange restrictions which are no longer necessary for balance of payments reasons and that any member retaining any restriction inconsistent with Article VIII, Sections 2, 3, and 4, shall consult the Fund as to further retention after March 1, 1952. The use of restrictions by member countries is described in brief country surveys. Also summarized are the changes in the use of restrictions which took place during 1951 and early 1952. In 1951 considerable relaxation in the application of restrictions was noted, but 1952 saw the intensification of restrictions by a number of countries, including some with important international financial positions. The report points out that there still remains a widespread use of restrictive practices by the Fund's members, with the nature of the restrictive practices in use differing considerably among countries. It reports that most countries discriminate in the application of their restrictions so that payments in "hard currencies" are curtailed to a greater extent than in "soft currencies." Multiple currency practices exist in about half of the 44 member countries surveyed, and there has been some extension of this practice, notably in Europe. Other member countries, which are not availing themselves of the transitional arrangements of the Fund Agreement, employ quotas, discriminatory import restrictions, tariffs, and other similar policies which also interfere with

the free flow of international trade and significantly affect international payments.

-- A. M. Sandberg

A Trade and Tariff Folicy in the National Interest (A Report to the President by the Public Advisory Board for Mutual Security), 83 p., printed, 40 cents. The Public Advisory Board for Mutual Security, Washington, D. C. (For sale by Superintendent of Documents, Washington 25, D. C.) This study of the problems relating to international trade was undertaken by the Board during the summer of 1952 at the request of President Truman. Discussed in the report are the findings and recommendations of the Board; the trade and payments problem; imports of manufactures; imports of food and agricultural commodities; imports of metals and minerals; simplification, consolidation, and reduction of tariffs; simplification of customs procedures; other trade policies; adjustment to increased imports; and the national and international policy. Fishery products are discussed under imports of food and agricultural commodities, with specific attention given to groundfish fillets and tuna. This report is the result of six months' study, in the course of which the Board had the advice and assistance of governmental and private authorities on U. S. trade policy.

"Use of Echo Survey in Charting Fish Shoals," by D.H. Cushing, article, World Fishing, vol. 2, no. 4 (April 1953), pp. 147-51, illus., printed. John Trundell (Publishers) Ltd., London, E. C. 4, England. The use of the echo-sounder as an instrument of practical research by which the distribution of fish over a relatively wide area may be examined is discussed in this article. The author describes the method of survey, and the various forms of trace that may be obtained and their significance. Echo surveys are shown to be of use in known fisheries where a general identification of the fish species is already made, in order to show the regions of abundance of fish, whereas the extension of surveys into an unknown area requires either identification in that area or the particular identification of fish within each sounding.

United States Exports of Domestic and Foreign Merchandise (Commodity by Country of Destination), Calendar Year 1952, Report No. FT 410, processed, Part I, 142 p., 60 cents; Part II, 238 p., \$1.00. Bureau of the Census, U. S. Department of Commerce, Washington, D. C., April 1953. (For sale by U. S. Department of Commerce at Washington, its field offices, or the Superintendent of Documents, Washington 25, D. C.) In general, the statistics contained in this report are a complete record of the exports of merchandise out of the United States to foreign countries, but there are some exclusions of items of relatively small importance, such as low-valued or noncommercial shipments by mail, gifts valued less than \$100, samples, etc. Both quantity and value of exports are reported. Included are exports of fishery products and byproducts. Part 1 covers Group OO-Animals and Animal Products, Edible; Group O-Animal Products, Inedible; and Groups 1, 2, 3, 4, and 5. Part II covers Groups 6-9, metals, machinery and vehicles, chemicals, and miscellaneous, respectively.

United States Imports of Merchandise for Consumption, Calendar Year 1952 (Commodity by Country of Origin)

Report No. FT 110, 178 p., processed, 70 cents. Bureau of the Census, U. S. Department of Commerce, Washington, D. C., May 1953. (For sale by U. S. Department of Commerce at Washington, its field offices, or the Superintendent of Documents, Washington 25, D. C.) This publication contains a compilation of all United States imports of all commodities (including fishery products) for consumption. Information presented for each commodity includes country from which shipped, quantity, and value.

Waves and Tides, by R. C. H. Russell and D. H. Mac-348 p., printed, illus., \$6.00. Philosophical Library, New York, N. Y. Waves and tides are of considerable concern to fishermen as well as to all those that look to the sea for their livelihood or pleasure. How big are the biggest waves? How fast and how high are the biggest tides? What are the causes of waves and tides and to what extent do these causes interact? These are questions which have been asked by every man who has come into contact with the sea, and these same questions have worried mariners for centuries. Modern development of the oceanographic sciences has now made it possible to answer these questions and this book gives the available information in a way that will be understandable by the intelligent visitor to the seaside and to the man who spends the greater part of his life on the sea. Arranged in two parts, the book really consists of two distinct books. Although waves and tides go together in the minds of many people, a treatment of the two necessitates separate discussions. Part I-Waves-deals with the characteristics of ocean waves; ideal waves; generation of waves by wind; waves near the shore; reflection, diffraction, refraction, and wave-induced currents; movement of material by the sea; effect of wave action on structures; and wave measuring. Part II-Tides-discusses the pulse of the earth; general features of the equilibrium theory; tidal theory today; tides and the navigator, the local observer, the surveyor, and the weather; tidal streams; tidal factors in history, commerce, and sea power; utilization of tidal energy; and the future of tidal research. Appendices to Part I deal with derivation of the velocity of low waves in deep water; formulae relating to low waves in shallow water; properties of trochoidal waves; derivation of the velocity of solitary waves; and potential and kinetic energy. The appendices to Part II present the determination of mean sea level, and a summary of main formulae and data. In order to overcome the difficulty encountered with technical terms, specialized words and words used in specialized senses have been incorporated in the Index-Glossary at the end of the book wherever necessary so that it constitutes not only an index but a key to terminology.

Arctic Solitudes, by Admiral Lord Mountevans, 134 p., illus., printed, \$4.50. Philosophical Library, New York, 1953. The text is a brief, practically chronological summary of explorations in the Arctic regions beginning with explorations attributed to the Greeks and Vikings to notes on the conquest of the North Pole by air. Between these extremes there is the history of the failures and conquests of the North-East passage by boat and the North Pole on foot and sled. Some of the Russian explorations are pointed out which, because of the lack of records in other than the Russian language, are little known. Only a small part of the text pertains to the author's experience in the North. The bibliography contains a list of 34 books from which most of the information was gathered. Opening of the polar regions has radically changed the way of life of the Eskimos who live within the Arctic Circle and the author describes the changes that have taken place. Some accounts of whaling, seal, walrus, and bear hunting are included. fishing for cod, salmon, and other cold-water fish is described.

TRADE LISTS

The Commercial Intelligence Branch, Office of International Trade, U. S. Department of Commerce, has published the following mimeographed trade lists. Copies of these lists may be obtained by firms in the United States from that Office or from Department of Commerce field offices at \$1.00 per list:

Commercial Fishing Companies and Fish Exporters - United Kingdom, 13 p. (March 1953). Lists names and addresses of trawler owners, wholesalers, fish curers, and exporters.

Cuttlefish Bone - Exporters - Portugal,
2 p. (March 1953). Most of the firms
listed as exporters of cuttlefish bone
also handle other products, such as fish
oils, frozen and salted fish, canned
fish, fish meal, and a few are processors
and canners. The firms listed are all
located in Lisbon. The size of each
firm is indicated.

Canneries - Canada, 26 p. (April 1953).

The names and addresses of canners are given. The types of products processed are listed. Those firms canning fish and shellfish and dog and cat foods are also included. The size and production capacity of each firm is indicated.



FROZEN FISHERY PRODUCTS SALES ARE UP

Wholesalers' and distributors' frozen-food sales included a higher relative proportion of fishery products during 1952, according to a survey made by Quick Frozen Foods and reported in the February 1953 issue. Analyses show that



fishery products accounted for 11.4 percent of frozen-food sales by wholesalers and distributors. This percentage placed fishery products third in sales importance—behind vegetables (30.4 percent) and concentrates (25.7 percent). Fruits (11.1 percent), specialties (9.0 percent), poultry (8.4 percent), and meats (4.0 percent) followed in that order in 1952.

A similar survey for 1951 revealed that fishery products (9.0 percent) ranked sixth in sales importance-behind vegetables (32.0 percent), concentrates (23.0 percent), fruits and specialties (each 11.0 percent), and

poultry (10 percent). Thus the relative sales position of fishery products for distributors and wholesalers rose from sixth to third place in one year. However, there is no assurance that this 1952 position will be maintained by fishery products in 1953, for frozen fruits were close behind and also made a gain in their percentage of sales volume in 1952. Frozen poultry and specialties, which lost relative importance in sales volume during 1952, may not be as great a threat to the relative standing of fishery products.

The same surveys threw some light on the average markup on the various categories of frozen foods by distributors and wholesalers. Fishery products were given an average markup of 17 percent in 1952, compared with an average markup of 17.5 percent in 1951. This markup on frozen fishery products was second highest among the seven frozen-food categories. Specialties were first in both years, carrying a 20-percent average markup in 1951 and a 19.2-percent average markup in 1952. Markups on other items, except concentrates, were also lower in 1952.



Editorial Assistant -- Ruth V. Keefe

Illustrator -- Gustaf T. Sundstrom

Compositors--Jean Zalevsky, Betty Coakley, and Alma Greene

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Page 6--R. Stevens; p. 15--G. T. Sundstrom; p. 52--Propaganda-Abteilung des Seefischmarktes, Bremerhaven; cover and p. 61--Food and Agriculture Organization, Rome; p. 66--G. T. Sundstrom.