



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 |
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| CFS-952 | - New Jersey Landings, November 1953, 2 p. |
| CFS-958 | - Frozen Fish Report, February 1954, 8 p. |
| CFS-959 | - Mississippi Landings, January 1954, 2 p. |
| CFS-961 | - Florida Landings, December 1953, 6 p. |
| CFS-962 | - New Jersey Landings, December 1953, 2 p. |
| CFS-964 | - Massachusetts Landings, December 1953, 9 p. |
| CFS-965 | - Texas Landings, January 1954, 3 p. |
| CFS-967 | - Maine Landings, 1953 Annual Summary by Counties, 10 p. |
| CFS-968 | - Massachusetts Landings, 1953 Annual Summary by Ports, 16 p. |
| CFS-969 | - Maine Landings, 1953 Annual Summary by Months, 6 p. |
| CFS-970 | - Massachusetts Landings, 1953 Annual Summary by Gear and Area, 16 p. |
| CFS-971 | - Florida Landings, 1952 Annual Summary by Months, 10 p. |
| CFS-972 | - Frozen Fish Report, February 1954, 8 p. This issue contains data for February. Commencing with this issue (CFS-972), this publication will be dated with the month for which the data is included, and not the date of issue as in the past. A previous issue, <u>Frozen Fish Report, February 1954 (CFS-958)</u> covered data for January 1954, 8 p. |
| CFS-973 | - Maine Landings, January 1954, 4 p. |
| CFS-974 | - Massachusetts Landings, January 1954, 7 p. |
| CFS-975 | - New Jersey Landings, January 1954, 2 p. |
| FL -292 | - List of Fishery Cooperatives in the U. S. & Alaska (revised), 5 p. |
| FL -393 | - Fisheries of the United States and Alaska, 1953--A Preliminary Review (revised), 22 p. |
| SL -16 | - Wholesale Dealers in Fishery Products, Florida, 1954 (revised), 9 p. |

Sep. No. 369 - Relative Productivity and Value of the Fisheries of the United States and Alaska, 1951.

Sep. No. 370 - California: Loss of Sardine Fishery May Become Permanent. Sardine Study Progress Report.

SSR-Fish, No. 95 - Morphometric Measurements of Pacific Scombrids, by Dorothy I. Y. Dung and William F. Royce, 171 p., processed, February 1953.

SSR-Fish, No. 106 - Use of Fish Products in Blueback Salmon Diets (Evaluation and Utilization of Cannery Wastes and Other Materials in Hatcheries), 59 p., illus., processed, November 1953. This report is divided into five parts: Part I--"Introduction: Review of the Problem and Scope of the Study," by G. Ivor Jones and Maurice E. Stansby; Part II--"Chemical Composition of Hatchery Feeds," by Neva L. Karrick and William Clegg; Part III--"Chemical Preservation of Salmon Eggs for Fish Hatchery Feed," by George Pigott and Maurice E. Stansby; Part IV--"Summary of Feeding Trials on Utilization of Fishery Products for Fish Food," by Roger E. Burrows, Leslie A. Robinson and David D. Palmer; and Part V--"Utilization of Alaska Salmon Cannery Waste as a Source of Feed for Hatchery Fish," by R. G. Landgraf, Jr., David T. Miyauchi, George Pigott, and Maurice E. Stansby. Microbiological methods of assay for niacin, riboflavin, biotin, and vitamin B₁₂ were adapted to hatchery-feed materials. Data on composition of 49 hatchery-feed components and 42 mixed hatchery-fish diets are presented for the foregoing vitamins and for moisture, protein, oil, and ash. It was found that the component parts of salmon viscera vary widely in nutritive value for hatchery-fish feeding, and also the salmon eggs have by far the greatest nutritive value of any of these components. Other fish materials, such as halibut sawdust (the band-saw waste resulting from preparation of steaks from frozen halibut), whole rockfish, tuna viscera, tuna livers, and specially-prepared fish meals, were evaluated as possible hatchery-feed ingredients. Practical commercial methods of collecting, sorting, and packing of salmon-cannery waste were developed that allow shipment of the material from Alaska to fish hatcheries in the United States at economically feasible costs. A special container, consisting of a burlap sack with inner polyethylene bag liner, was developed for use with salmon viscera. Progress was made toward development of a cheap chemical preservative treatment for salmon eggs for use at salmon canneries which do not possess cold-storage facilities. A large-scale collection of

salmon viscera materials involving over 100,000 pounds of frozen products was made at Petersburg, Alaska. The material was shipped to Federal hatcheries in the State of Washington for actual production use. Cost records showed that salmon viscera and eggs can be shipped from Alaska to Washington State at costs competitive with other local hatchery feeds presently used.

SSR-Fish, No. 107 - Live-Bait Fishing for Tuna in the Central Pacific, by Isaac I. Ikehara, 23 p., illus., processed, July 1953. Since its inauguration in 1949 the Service's Pacific Oceanic Fishery Investigations (POFI) has undertaken various research projects to explore and develop the high-seas fishery resources of the various territories and possessions of the United States in the tropical and subtropical Pacific Ocean. One project was to conduct exploratory live-bait fishing in the central Pacific. The POFI vessels Hugh M. Smith and Henry O'Malley, both built along U. S. west coast tuna clipper lines, conducted exploratory live-bait fishing for tuna in the vicinity of the Line, Phoenix, and Hawaiian Islands during 1949-51. This report deals primarily with the observations made on these two vessels.

SSR-Fish No. 113 - Artificial Fertilization of Lakes and Ponds--A Review of the Literature, by John A. Maciolek, 43 p., processed, January 1954.

SSR-Fish, No. 114 - Experimental Transportation of Live Shad Past Susquehanna River Dams, by Charles H. Walburg, 15 p., illus., processed, January 1954. Describes experiments to determine the feasibility of transporting shad long distances and transplanting them, the success of spawning of the transplanted shad, the survival of young, and the mortality suffered by juveniles and adults in descending the dams. During the spring of 1952, 1,184 adult shad were transported from the head of Chesapeake Bay near Perryville, Maryland, to stocking locations above Conowingo and Safe Harbor Dams on the Susquehanna River. All but 19 fish were tagged before release. Five hundred shad were tagged and released at the head of Chesapeake Bay to serve as a control. Of the shad planted above Conowingo Dam, 89 percent survived to point of planting, while of those planted above Safe Harbor Dam, only 68 percent survived. Thus the survival rate of the shad decreased as the hauling distance increased. The investigators believe that a higher survival rate would have been obtained if the hauling tanks had been larger and arranged so that the shad could swim and respire in a normal manner. From tag recoveries it was determined that 51.6 percent of the shad present were taken by the commercial fishery during the 1952 shad season and that 77 of the planted shad passed downstream over Conowingo Dam. There was no significant difference between the survival rate of the shad planted above Conowingo Dam and that for the shad tagged at the head of Chesapeake Bay. It was estimated that somewhat more than 50 of the 967 shad planted at Columbia, Pennsylvania, successfully passed downstream over Safe Harbor, Holtwood, and Conowingo dams.

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

Fishes of the Gulf of Maine, by Henry B. Bigelow and William C. Schroeder, Fishery Bulletin 74 (From Fishery Bulletin of the Fish and Wildlife Service, vol. 54), 584 p., illus., printed, \$4.25 (buckram), 1953. The various species of fish inhabiting Atlantic waters off New England, New Brunswick, and Nova Scotia are described in the new edition of Bulletin 40, which was published between 1925 and 1927 by the Bureau of Fisheries, predecessor of the U. S. Fish and Wildlife Service. The new edition presents material on distribution, abundance, life histories, and identification of the different fishes found in the oceanic bight between Nantucket Shoals, Mass., and Cape Sable, Nova Scotia. Rimmed on the seaward side by Georges Bank and Browns Bank, this area known as the Gulf of Maine is of great importance to commercial fishermen. Growth, reproduction, food habits, range, commercial importance, and other significant facts about these fishes are brought out in the bulletin's text and illustrations. More than 250 pen-and-ink drawings delineating the outer features of the different fishes make for easy and accurate species identification. Keys are provided for all species as a further aid to identification.

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.

(Alaska) 1952 Annual Report, Report No. 4, 87 p., illus., printed. Alaska Fisheries Board and Alaska Department of Fisheries, Juneau, Alaska, 1953. Summarizes the activities of the Alaska Fisheries Board and the Alaska Department of Fisheries for 1952. Describes the biological research, inspection, predator control, sport-fish, and watershed-management programs. This report also contains statistics on the value of canned salmon--initial price per case, approximate total value per species, and total for all species (1943-1952); total salmon pack and number of operating salmon canneries by districts (1943-52); number of salmon taken in 1951 by gear, species, and district; production (quantity and value to the fishermen) of fishery products for 1943-52; and production (quantity and value) of fishery products as prepared for market for 1943-52. Also contains a historical review of the herring fisheries of Alaska; a financial statement; and a discussion of the plans of the Department and its future outlook.

Biological Conservation with Particular Emphasis on Wildlife, by John D. Black, 342 p., illus., printed, \$5. The Blakiston Co., Inc., 575 Madison Ave., New York 22, N. Y., 1954. Much has been written on conservation, but this book attempts to give a comprehensive viewpoint of conservation in general and biological conservation in particular. The author's emphasis is on building a background of information concerning renewable resources. "Wildlife"

is interpreted by the author in this book to include not only the game birds and mammals, but the nongame forms as well. The author points out: "Some special attention is paid to fishes because the aquatic forms of wildlife are so often neglected; consideration is given to significant invertebrate forms; and a special effort is made to set wildlife against a proper environmental background." Part III--Fish and Other Aquatic Animals--will be of particular interest to fishery workers, researchers, and others conscious of fishery conservation. This section includes chapters on game and panfishes, rough fishes, forage fishes, reptiles and amphibians, and invertebrates. However, the emphasis is on fresh-water forms because the author in his preface admits: "Marine forms are treated only incidentally because marine biology is a highly specialized field--a field of which our knowledge is so scattered and limited that the writing of a conservation book placing proper emphasis on marine biology is at this time out of the question." Part II--The Environment--discusses basic ecology, standing water, running water, grasslands and wildlife, and forests. Those interested in wildlife will find Part IV (Birds) and Part V (Mammals) quite comprehensive. These sections include chapters on upland game birds, ducks and geese, shore birds, predatory birds, songbirds and nongame birds, fur bearers, game mammals, predatory and other mammals. The basic considerations of conservation are adequately covered in Part I. The author presents a historical review, of conservation, and then discusses the need for conservation; essentials of life; soil; and water. Administration of conservation is covered in Part VI--Solving the Problem. The author in this section presents some food for thought. The various agencies concerned with wildlife conservation are indicated in this part of the book, and the activities of the agencies in this field are summarized briefly. Besides pertinent references at the end of each chapter, the book contains an appendix which consists of an annotated bibliography. In a short introduction to this bibliography, the author states: "These are the books which the author considers the core library for reference work in biological conservation." Another appendix is a directory of useful educational films related to wildlife. Very well illustrated and indexed, the book is a valuable asset to any student of conservation in general or wildlife conservation in particular. Although intended as a college text, this book is valuable to any individual who is interested in obtaining a basic foundation of facts and ideas on conservation.

--J. Pileggi

Bulletin of the Japanese Society of Scientific Fisheries, vol. 19, no. 4, 1953, 419 p., illus., printed in English and Japanese. The Japanese Society of Scientific Fisheries, Tokyo, Japan. In addition to many others, this bulletin contains the following scientific papers: "Study on the Netting Cords--V. On the Mechanical Properties of Twine," by Kenji Masuzaki and Fumio Fukazawa; "The Relation Between the Mouth Heights of the Square Part of Small Trawl Net and Its Pulling Velocity," by Tihoro Miyazaki; "Mechanical Action of the Otter Board of the Trawl Net," by Tasa Kawakami; "On the Pull of Fish Caught by Fish Hook," by Yasuo Ohshima;

"Ecological Analysis of Pelagic Shoals--I. Analysis of Salmon Gill-Net Association in Aleutian. II. Distribution of Fishes on the Gill-Nets," by Hiroshi Maeda; "Basic Study of Fish School Research by Fish Finders," by Takio Yokota, Toshio Kitagawa, and Tadahiko Asami; "On the Preservation Test of Fish Net by Antibiotic Fish Oils (Preliminary Report)," by Yukio Tomiyasu and Masamichi Toyomizu; "Microbiological Studies on the Weakening of Fishing Nets--III. The Microbiological Deterioration of Fishing Nets During Storage," by Hajime Kadota; "Handling Effect upon Biochemical Change in the Fish Muscle Immediately after Catch--I. Difference of Glycolysis in the Frigate Mackerel Killed by Various Methods," by Keishi Amano, Masamichi Bito, and Toshiharu Kawabata; and "Handling Effect upon Biochemical Change in the Fish Muscle Immediately after Catch--II. Changes of Acid-Soluble Phosphorus Compounds of Frigate Mackerel Muscle," by Masao Fujimaki and Kenzo Kojo.

Cooking Frozen Foods, by Hermina Dohogne, Circular 594, 8 p., illus., printed. Extension Division, Oklahoma A. & M. College, Stillwater, Oklahoma. Contains instructions on the care of foods (including fish) when taken from the freezer, refreezing thawed foods, thawing frozen foods, and cooking frozen foods (including fish),

"Data on Dolphin, Yellowfin Tuna and Little Tuna from East Africa," by James E. Morrow, article, Copeia, February 19, 1954, No. 1, p. 14-16, printed. The American Society of Ichthyologists and Herpetologists, Baltimore 2, Md. In 1950 the Yale East African Expedition examined a few specimens of dolphin (Coryphaena hippurus Linnaeus), yellowfin tuna (Thunnus albacora Lowe), and little tuna (Euthynnus affinis Cantor), that were collected along the East African coast between Mombasa and Zanzibar. The weight-length relationship and various measurements made on these specimens are discussed. Although the data presented are fragmentary, the lack of biological knowledge concerning these fish together with the increasing interest in the biology of the tunas suggest that this brief report may be worthwhile.

Determinations of Free and Bound Ascorbic Acid in Fishery Products, by W. H. Hastings and C. Floyd Spencer, Contribution No. 3, 4 p., printed. (Reprint from Journal of Marine Research, vol. XI, no. 2, 1952, pp. 241-244.) School of Fisheries, University of Washington, Seattle 5, Washington. This is a preliminary report of a survey of ascorbic acid in fish and shellfish. Ascorbic acid is found in two different forms in fish tissue. One form, soluble in 95 percent ethanol, constitutes approximately 85 percent of the total vitamin C content; and the other form, which is insoluble in 95 percent ethanol, constitutes approximately 15 percent of the total. Certain fish products have sufficient ascorbic acid to be of importance as dietary sources. Retention of the vitamin on processing varies with different fish products.

Fishes of the Marshall and Marianas Islands, vol. 1--Families from Asymmetrontridae through Siganidae, by Leonard P. Schultz and Collaborators, Bulletin 202, 717 p., illus., printed, \$2.75. Smithsonian Institution, U. S. National

Museum, Washington, D. C., 1953. (For sale by Superintendent of Documents, Washington 25, D. C.) This is a descriptive catalog of the fishes collected in the Marshall Islands in connection with, and after, the atom-bomb tests of Operation Crossroads in 1946. In addition, it includes material from the southern Marianas Islands and contains descriptions of new species and of new genera from various other areas of the tropical Indo-Pacific region, whenever these new forms were found and were needed in the clarification of the species of fishes encountered in the faunal area under investigation. The study of those specimens on which this report is based and their comparison with specimens from other faunal areas of the tropical Indo-Pacific region show conclusively: (1) that the vast Indo-Pacific fauna cannot be properly interpreted on a local basis, and that to approach a correct conclusion in identification, each species must be compared with all its close relatives from the east coast of Africa to the west coast of the Americas; (2) to place the correct scientific name on specimens usually required a tentative revision of the genus where no revision existed; (3) the investigator must study the original descriptions of each species, augmented by redescriptions of type specimens, and must not rely on unverified descriptions in the literature; and (4) no reliance can be placed on lists of fishes that are based entirely on collections from a single group of islands, or that lack supporting descriptions and figures. In the discussions following some of the family and generic names, information pertinent to the relationships of the genera and species, respectively, are included. In some instances, references to important literature have been included. In certain families and genera, in which the number of pelvic and branched caudal rays are constant for all species, these counts are noted in the discussion and omitted in the descriptions of the species.

(FAO) Program of Work and Budget for 1953 (As Approved by the Sixteenth Session of the Council), 175 p., printed. Food and Agriculture Organization of the United Nations, Rome, Italy, December 1952. Contains the Program of work and budget for 1953 and reviewed and approved by the Council at its Sixteenth Session. The organization's plans and work for fisheries are also included.

(Department of the Interior) 1953 Annual Report of the Secretary of the Interior (For the Fiscal Year Ended June 30), 425 p., illus., printed, indexed, \$1.25. U. S. Department of the Interior, Washington, D. C. (For sale by the Superintendent of Documents, Washington 25, D. C.) This publication contains the annual reports of the various agencies of the Department of the Interior, including the Fish and Wildlife Service. Included under Fish and Wildlife Service are summaries of its various activities. Specifically discussed are utilization of fishery resources (describes the activities of the Branch of Commercial Fisheries); administration of Alaska fisheries; Pribilof Islands fur-seal industry; maintenance of inland fisheries; research in fishery biology (coastal, inland, marine, and shellfish fisheries); Federal aid to state projects for the restoration of fish and wildlife; river basin development and wildlife needs;

international cooperation in conservation (international conservation agreements and technical cooperation); and other activities.

Know Your Oklahoma Fishes, by H. C. Ward, 40 p., illus., printed. Oklahoma Game and Fish Department, Oklahoma City, Oklahoma. There are 23 known fish families and more than 150 species found in Oklahoma. Sixteen of the families and about one-third of the species are included in this booklet, with a brief discussion accompanying each species. This booklet should help the sportsmen and elementary and high school groups become more familiar with some of the important fishes of Oklahoma.

Norges Fiskerier, 1951 (Fisheries Statistics of Norway), Norges Offisielle Statistikk, Series XI, no. 149, 155 p., illus., printed in Norwegian with table of contents also in English, Kr. 3.50 net (50 U. S. cents). Fiskeridirektoratet, Bergen, Norway. (Printed by I Kommissjon Hos H. Aschehoug & Co., Oslo, Norway, 1953.) Contains the official annual fisheries statistics of Norway by districts. Includes quantity, value, and average prices for all species of fish caught commercially. Also gives statistics on number of fishermen and craft, and number and type of gear, as well as data on fish-processing plants. Information on utilization of catch and on participation by men and craft is also given from the most important sections of the fishing industry. Tables showing Norwegian fishermen's catch in the fisheries west of Greenland are also included. Also contains a list of scientific and common names (in four different languages) of fish, crustaceans, mollusks, and other aquatic organisms in Norwegian waters; drawings of the principal species of fish, crustaceans, and mollusks; and drawings of the different types of fishing gear.

"Postlarvae and Young of the Menhaden (*Brevoortia tyrannus*) in Brackish and Fresh Waters of Virginia," by William H. Massmann, Ernest C. Ladd, and Henry N. McCutcheon, article, Copeia, February 19, 1954, No. 1, p. 19-23, illus., printed. The American Society of Ichthyologists and Herpetologists, Baltimore 2, Md. Describes a study of the distribution and relative abundance of postlarval and young menhaden in the brackish and fresh waters of Virginia. Plankton samples from brackish and fresh waters in the James, Chickahominy, Pamunkey, and Mattaponi rivers established the presence of larval menhaden in the fresh waters of these rivers. Minnow-seine sampling in the Rappahannock River demonstrated that young menhaden were concentrated just above brackish waters. The distribution of young menhaden in surface-trawl hauls appeared to be similar to the distribution pattern deduced from minnow-seine samples. Menhaden averaging 94 mm. in standard length were most abundant immediately upstream from brackish water. Although menhaden were found 15 miles further upriver by surface trawl than by seine, the trawl obtained larger samples than did the seine; therefore, the wider distribution may have reflected more effective sampling.

Production and Harvest of Bait Fishes in Ponds, by Sheldon B. Hedges and Robert C. Ball, Miscellaneous Publication No. 6, 30 p., illus.,

printed. Michigan Department of Conservation, Ann Arbor, Mich., June 1953. Describes experiments conducted to determine the feasibility of raising bait fishes in farm-type ponds. These experiments demonstrated that many of our native bait fishes can be successfully raised in farm-type ponds, and as a result the bait dealer can reduce his transportation costs and have the bait available when the demand is highest. Thus by pond rearing of bait fishes, the demands of the fishermen for bait would in part be met and some of the pressure would be removed from natural waters. This report describes the ponds used in the experiments, the aquatic plants, and fertilization. It also includes spawning observations of four types of bait fishes, and discusses growth and production and value of fish produced. Describes several methods of removing the fish from a pond. "Of these methods," according to the authors, "the glass traps are the most flexible and have proven an effective way to remove fish from ponds. The glass traps can be used in any kind of pond and can be operated effectively and inexpensively by one man. The minnows taken in glass traps are less likely to be injured than those taken by other means and as a result the loss of glass-trapped minnows is lower." The authors point out that a large capital outlay is necessary to enter the minnow-rearing business on a scale that will afford a full-time income, and that the hazards of rearing, handling, and selling bait are great. They suggest that anyone establishing a bait-rearing business without previous experience should do so only after considerable study of methods and problems involved, and perhaps start it as a side line to some other occupation.

Production in Louisiana \$33,000,000 (Shrimp, Oyster, Commercial Fish, Employing 31,000 Persons), 2 p., illus., printed. Louisiana Wild Life and Fisheries Commission, 126 Civil Courts Bldg., New Orleans 16, La. Contains a brief history of Louisiana's shrimp and oyster industries. Also includes some interesting facts about the salt-water and fresh-water fish industries of Louisiana.

Report on the Mauritius-Seychelles Fisheries Survey 1948-1949, Fishery Publications: vol. 1, no. 3, 1953, 145 pp. & 5 color plates, printed, US\$9.00. British Colonial Office. Printed by Her Majesty's Stationery Office, London, England. (American Agents: British Information Services, 30 Rockefeller Plaza, New York 20, N.Y.) This is a report of the conclusions of a two-year survey (1948-49) made by the research vessel M. F. R. V. No. 1 in the Mauritius-Seychelles area. Included are ancillary notes and observations made by the schooner *Sarcelle* and other craft from the Seychelles (1947), and in small boats and pirogues at Mauritius from 1943-46. The purpose of the survey was to establish the productivity of the area between the Seychelles and Mauritius, and forming with them the arc of a circle, whose center, 600 miles away, is at the north end of Madagascar. In this area is located a chain of shallow banks—the Constant, the Fortune, the Saya de Malhá, the Nazareth, and the Soudan. Part I (The Bottom Fishes of Economic Importance) deals with the inshore fishery of Mauritius, the fresh-water fishery, and the Seychelles fishery; the

oceanic banks and dependencies; the bottom fishes of economic importance, the distribution of fish; the recording of fishes and sharks; the problem of poisonous fishes; fishing gear used by the vessel M. F. R. V. No. 1; disposal of the catches; and the fish potential. Part II (The Pelagic Fishes) describes the method of fishing, presents notes on the fishes, and discusses the seasonal abundance of pelagic fishes and catch of pelagic fishes. Part IV presents general considerations and conclusions. Part I, II, and IV were written by J. F. G. Wheeler. Part III, written by F. D. Ommanney, presents the meteorological observations recorded during the survey. A fascinating account of marine life in the depths of the Indian Ocean is presented in this report which should be of practical value to the fisherman and to the marine scientist. Descriptions of fishing grounds around the little-known remote islands of the Indian Ocean are included. Presented in the book are comprehensive notes on fishing gear, marketing of fish, sharks, and turtles. The book also includes five appendices.

Schedule A, Statistical Classification of Commodities Imported into the United States, January 1, 1954 Edition, 1063 pp., printed, annual subscription \$3.50 to domestic subscribers and \$4.50 to foreign subscribers; these rates include the supplemental bulletins and insert pages for at least one year. Bureau of the Census, U. S. Department of Commerce, Washington, D. C. (For sale by Superintendent of Documents, Washington 25, D. C.) Schedule A is the statistical classification of commodities imported into the United States used in compiling the official United States import statistics. It shows for each commodity description (including fish and fish products, etc.) the commodity code numbers to be shown on import entries and withdrawal forms. In addition it shows the country, customs district, subgroup, economic class, unit of quantity, and flag of vessel classifications used in compiling the statistics. This new edition supersedes the August 1, 1950 edition, corrected to May 1, 1952, and includes all changes made by supplementary bulletins since May 1, 1952. This reprint also provides for many combinations of classifications and some new classifications, resulting in a net decrease of approximately 600 in the number of import commodity classifications. Changes in presentation of the 1954 edition are as follows: (1) The new Schedule is printed in two parts. The first part includes information similar to that shown previously except that duty information is shown only for rates specified in the 1930 Tariff Act and trade agreement rates which are currently in effect. Trade agreement rates of duty which have been in effect since the 1930 Tariff Act, but are no longer in effect, are not shown in the Schedule but will be included in a separate supplement to the new Schedule A. The supplement, which will be of interest primarily to individuals desiring to study the history of changes in tariff duties since 1930, will be available early in the Spring of 1954. The majority of users of the Schedule who are interested in preparing the import documents and those interested in using the current import statistics will be primarily interested in the regular Schedule A. (2) The regular Schedule A is printed in loose-leaf form

and the pages are printed on one side only. This will permit users of the Schedule to put special notes regarding individual classifications relating to the commodities they are interested in on the blank side. In addition, it will permit the reprinting of fewer pages in the future, since it will be necessary to reprint only those pages on which changes have been made. In the past it has been necessary to reprint both the front and back of the page even though changes may have been made only on one side.

Status of the Crab, CHIONOECETES BAIRDI, in the Inshore Waters of Washington and British Columbia, by J. W. Slipp, Contribution No. 2, 5 p., printed. (Reprint from The Wasmann Journal of Biology, vol. 10, no. 2, summer 1952, pp. 235-239) School of Fisheries, University of Washington, Seattle 5, Washington. Summarizes data on the range and distribution of the crab, Chionoecetes bairdi, in the inshore waters of Washington and British Columbia. Contains a brief comment on the size and apparent distributional density of specimens encountered in this study.

"A Survey of the Poisonous Fishes of the Phoenix Islands," by Bruce W. Halstead and Norman C. Bunker, article, Copeia, February 19, 1954, No. 1, pp. 1-11, illus., printed. The American Society of Ichthyologists and Herpetologists, Baltimore 2, Md. This paper contains the results of the first of a series of field investigations on the poisonous fish fauna of the tropical Pacific. The purpose of this study is to provide more accurate data regarding the identification of poisonous fishes. Of the 93 identified species of fish that were tested, 27 species (or 29 percent) were found to be toxic. There were 18 identified toxic specimens in which both the musculature and viscera were tested; 94 percent of these fishes had toxic viscera, but only 28 percent had toxic musculature. Twenty-two percent of the specimens had both toxic musculature and viscera. According to the authors, "additional toxicity tests should be conducted on a larger series of reef fishes taken from representative areas in the Phoenix Islands. Although the aforementioned results cannot be considered conclusive, there is evidence to support the idea that a species may be poisonous in one area and edible in another." Much of the data presented in this report are preliminary in nature and the reader is cautioned about forming premature conclusions. In the opinion of the authors the public health significance of the poisonous fish problem has been grossly underestimated and is worthy of much greater attention than has been received to date.

Twelfth Annual Report of the Atlantic States Marine Fisheries Commission (to the Congress of the United States and to the Governors and Legislators of the Fifteen Compacting States), 45 p., printed. Atlantic States Marine Fisheries

Commission, Mt. Vernon, N. Y., December 1953. In this annual report the Commission reports progress on fishery research projects initiated and carried on by the Commission and on its behalf by the U. S. Fish and Wildlife Service. Under the North Atlantic Section of the report are included discussions of projects dealing with lobsters, haddock, clams, ocean perch, shad, yellowtail flounder, Atlantic salmon, sea scallops, freezing fish in the round at sea, reconstruction of the Service's Woods Hole Laboratory, cooperative Federal-State striped bass program, exploratory tuna fishing catch statistics, fishery college in Massachusetts, dams in Connecticut River, dragging operations, and "trash fishing." Under the Middle Atlantic Section there is a discussion of projects dealing with shad, gray sea trout (weakfish), sea scallops, butterfish, Delaware River anadromous fisheries management bill, dams in Delaware River, cooperative Federal-State striped bass program, catch statistics, offshore waste disposal, dragging operations, trash fishing, New Jersey sport-fish inventory, and menhaden studies. The Chesapeake Bay Section includes discussions of projects concerned with croaker, blue crab, shad, Chesapeake Bay Institute, cooperative striped bass program; sport-fishing survey--Patuxent River, Potomac River oyster laws, and joint-legislature committee on migratory finfish. Under the South Atlantic Section a discussion of the following programs is included: shrimp, shad, bluefin tuna, carrying shrimp in refrigerated sea water, cooperative offshore research program, license fees and severance taxes, catch statistics, cooperative striped bass program, gear development, and the vessel Delaware. Another section of the report deals with the pollution project; state catch statistics; Northwest Atlantic fisheries; Amendments No. 1 and No. 2 to the Atlantic States Marine Fisheries Compact--Common Fisheries and Inland Waters; submerged lands bill S. 1901; fisheries research; legislation needed; activity by the fishing industry; statement on "social" legislation in the fisheries; and licenses for salt-water anglers.

TRADE LIST

The Office of Intelligence and Services, Bureau of Foreign Commerce, U. S. Department of Commerce, Washington 25, D. C., has published the following mimeographed trade list. Copies of this list may be obtained by firms in the United States from that office or from Department of Commerce field offices at \$1 per list.

Canneries - United Kingdom, 7 p. (February 1954). Includes fishery products canneries--gives the size of the firm and type of product packed. The report points out that 21,000 metric tons of fish were canned in the United Kingdom in 1952.

