



## FISH AND WILDLIFE SERVICE PUBLICATIONS

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- CFS - CURRENT FISHERY STATISTICS OF THE UNITED STATES AND ALASKA.  
 FL - FISHERY LEAFLETS.  
 SSR.- FISH - SPECIAL SCIENTIFIC REPORTS--FISHERIES (LIMITED DISTRIBUTION).  
 SEP.- SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.

- | Number  | Title  |
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| CFS-1068  | - Mississippi Landings, October 1954, 2 pp.  |
| CFS-1083  | - New York Landings, November 1954, 4 pp.  |
| CFS-1087  | - Frozen Fish Report, December 1954, 8 pp.   |
| CFS-1088  | - Rhode Island Landings, August 1954, 3 pp.  |
| CFS-1094  | - Massachusetts Landings, October 1954, 8 pp.  |
| CFS-1095  | - Texas Landings, November 1954, 3 pp.   |
| CFS-1096  | - Rhode Island Landings, September 1954, 4 pp.   |
| CFS-1097  | - Rhode Island Landings, October 1954, 4 pp.   |
| CFS-1099  | - Maine Landings, December 1954, 4 pp.,  |
| FL -9   | - Available Leaflets on Fisheries--1955, 18 pp.  |
| FL -421   | - United States Foreign Trade in Edible Fishery Products, 1949-53, by Arthur M. Sandberg and Ruth L. Dunavant, 44 pp., October 1954. This leaflet analyzes the foreign trade in edible fishery products of the United States from 1949 through 1953. Included are tables and charts showing the quantity, types of products, value, and origin or destination of the principal fishery products in the foreign trade of the United States. |
| SSR-Fish. 140   | - Burrowing Ability of Juvenile Clams, by John P. Baptist, 14 pp., illus., processed, January 1955.  |
| <u>Annual Report of the Director Fish and Wildlife Service to the Secretary of the Interior, Fiscal Year Ended June 30, 1954 (Reprinted from the Annual Report of the Secretary of the Interior), 34 pp., printed. Summarizes the various activities of the Service. Specifically discussed are: utilization of fishery resources (describes the activities of the Branch of Commercial Fisher-</u> |  |

ies); research in fishery biology (coastal, inland, marine, and shellfish fisheries); Federal aid to state projects for the restoration of fish and wildlife; maintenance of inland fisheries; administration of Alaska fisheries; Pribilof Islands fur-seal industry; river basin development and wildlife needs; international cooperation in conservation (international conservation agreements and technical cooperation); and other activities. Major research projects covered in the report included those directed toward the discovery of latent sources of fish which constitute food resources for the future. Great underfished resources of herring exist in the north Atlantic and west Pacific, of pilchard in the south Atlantic and south Pacific, of tunas in the central Pacific and south Atlantic, of cod in the north Pacific and the Atlantic.

In the central Pacific the results obtained by Service vessels scouting for tuna indicate that expansion of the Hawaiian tuna industry will depend largely on measures to increase the geographical area that the fleet can cover through construction of larger, better-equipped vessels, and improvement of the fishermen's navigational abilities.

New beds of deep-water red shrimp in the Gulf of Mexico were discovered by the Service's exploratory-fishing vessel Oregon. These now appear almost certain to become of commercial importance. The Oregon also made an important discovery of yellowfin tuna in the western Gulf. Exploratory cruises are planned to determine whether the yellowfin resources would support a new commercial fishery.

Research which continued throughout the year on the red tide problem on the west coast of Florida further confirmed earlier theories that river effluents carrying organic nutrients, and the correct combination of temperature and wind conditions produce a suitable environment for rapid reproduction of Gymnodinium brevis, the fish-killing plague.

Major emphasis in the Great Lakes fishery program was put on controlling the sea lamprey through further testing and refining of electrical barriers, completing research studies on lamprey biology, testing larvicides, and continuing a survey of streams tributary to Lake Superior.

At the Service's fishery laboratory at Woods Hole, Mass., one of the most important research

projects is the study of biological effects on the haddock of the regulation of the International Commission for the Northwest Atlantic Fisheries which makes it illegal to fish for haddock on Georges Bank or in the Gulf of Maine with a net having meshes of less than  $4\frac{1}{2}$  inches inside dimension. Use of this larger mesh saves small unmarketable fish and should increase the yield from each year class that enters the fishery.

Part of the Pribilof Islands fur-seal receipts were again available in fiscal year 1954 for equipment and added personnel to enforce the Alaska Game Law. This, together with the excellent cooperation of military authorities, greatly improved the protection of fish and wildlife in the Territory. Enforcement problems are increasing in Alaska because of new roads, the use of surplus military equipment, home-built tundra crawlers, and a new junior-size combination tractor-caterpillar capable of traversing most of the terrain.

Sep. No. 385 - Japanese High-Seas Mothership-Type Drift Gill-Net Salmon Fishery-- 1954.

Sep. No. 395 - Freezing and Cold Storage of Pacific Northwest Fish and Shellfish: Part IV - Storage Characteristics of Four Species of Salmonidae.

Sep. No. 396 - { Determination of Cook Drip in Pacific Ocean Perch (*Sebastes alutus*) and Pacific Oysters (*Ostrea gigas*) by Use of a New Method.  
Tech. Note No. 31 - Weight Range, Proximate Composition, and Thiaminase Content of Fish Taken in Shallow-Water Trawling in Northern Gulf of Mexico.

THE FOLLOWING SERVICE PUBLICATION IS AVAILABLE ONLY FROM THE SPECIFIC OFFICE MENTIONED:

Landings and Prices of Fishery Products, Boston Fish Pier, 1953 (Includes Trends in the Fishing Industry at Boston), by Thomas J. Risoli, 26 pp., processed, January 1955. (Available free from the Market News Service, U. S. Fish and Wildlife Service, 10 Commonwealth Pier, Boston 10, Mass.) Fish marketing trends and conditions in Boston for 1953 are discussed in this publication. Detailed data on landings and ex-vessel prices of fish and shellfish landed at the Boston Fish Pier during 1953 are presented. Statistics are given by months and species and by type of gear, together with comparative data for previous years.

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Alaska Fishery and Fur-Seal Industries, 1953, by Seton H. Thompson, Statistical Digest No. 35, 83 pp., illus., printed, 40 cents, 1955. Detailed reports and statistical tables concerning the operation and yield of the various fishery industries are presented, with added data on certain related matters, particularly the condition of the fishery resources. Under the section on fishery industries, the following subjects are

covered: court decisions; Alaska Department of Fisheries; research; exploratory fishing investigations; administration; management; and general statistics on salmon, herring, halibut shellfish, and miscellaneous fishery products. The second section on the Pribilof Islands fur-seal industry covers administration, fur-seal population studies, and general statistics on the fur seals taken in 1953. A statement is also included on sealing privileges accorded aborigines.

"North American Fish Policy," article, The Progressive Fish-Culturist, vol. 17, no. 1 (January 1955), pp. 45-47, processed (annual subscription \$1.25 domestic, US\$1.65 foreign). Presents the revision of the North American Fish Policy, which was adopted by the American Fisheries Society on September 14, 1954, at its 84th annual meeting in Seattle, Wash. The Policy is divided into seven sections: (I) State, National, and International Relations; (II) Administration of Fisheries; (III) Research; (IV) Management; (V) Multiple Use of Waters; (VI) Adoption of Uniform Common and Scientific Names of Fishes; and (VII) Education and Publicity.

## 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.

"Age Composition of the Southern California Catch of Pacific Mackerel for the 1953-54 Season," by John E. Fitch, article, California Fish and Game, vol. 41, no. 1, January 1955, pp. 107-112, printed. California Department of Fish and Game, 926 J Street, Sacramento 14, Calif.

(Alaska) 1953 Annual Report, Report No. 5, 93 pp., illus., printed. Alaska Fisheries Board and Alaska Department of Fisheries, Juneau, Alaska, 1954. Summarizes the activities of the Alaska Fisheries Board and the Alaska Department of Fisheries for 1953. Describes the biological research (Taku River investigation, troll fishery investigations, and black cod research), inspection, predator control, sport fish, and watershed management programs. The role of the salmon hatchery in Alaska is also discussed. The statistical part of the report contains data on the value of canned salmon by species; total salmon pack and number of operating salmon canneries by districts (1944-53); number of salmon taken in 1953 and 1952 by gear, species, and district; quantity and value of fish and shellfish landings by species (1944-53); and quantity and value of fishery products as prepared for market (1944-53). In addition to a financial statement, the report concludes with a discussion of the plans of the Department and its future outlook.

(Bears Bluff Laboratories) Annual Report 1953-1954, Contribution No. 17, 12 pp., illus., printed. (Reprinted from Report of South Carolina Wildlife Resources Department Fiscal Year July 1, 1953-June 30, 1954.) Bears Bluff Laboratories, Wadmalaw Island, S. C., January 1955. The

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activities of the Laboratories are described. Research was conducted on oysters, clams, crabs, shrimp, and salt-water ponds.

(Canada) Trade of Canada, Exports, December 1954 and Twelve Months Ended December 1954, 186 pp., processed, 50 Canadian cents. Dominion Bureau of Statistics, Ottawa, Canada, 1955. Contains exports of Canadian produce from Canada, including fishery products and byproducts.

(Department of the Interior) 1954 Annual Report of the Secretary of the Interior (For the Fiscal Year Ended June 30), 449 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); research in fishery biology (coastal, inland, marine, and shellfish fisheries); Federal aid to state projects for the restoration of fish and wildlife; maintenance of inland fisheries; administration of Alaska fisheries; Pribilof Islands fur-seal industry; river basin development and wildlife needs; international cooperation in conservation (international conservation agreements and technical cooperation); and other activities.

The Effects of a Late-Summer Drawdown on the Fish Population of Ridge Lake, Coles County, Illinois, by George W. Bennett, 12 pp., printed. (Reprinted from Transactions of the Nineteenth North American Wildlife Conference, March 8, 9, and 10, 1954, pp. 259-270.) Wildlife Management Institute, Wire Building, Washington 5, D. C.

"Exploratory Oceanographic Observations in the Eastern Tropical Pacific, January to March 1953," by Warren S. Wooster and Feenan Jennings, article, California Fish and Game, vol. 41, no. 1, January 1955, pp. 79-90, illus., printed. California Department of Fish and Game, 926 J Street, Sacramento 14, Calif.

"Fish Juices Could Save Ditched Aircrews," article, The South African Shipping News and Fishing Industry Review, vol. IX, no. 12, December 1954, p. 77, printed, single copy 2s. (28 U. S. cents). Describes research being conducted by the Royal Air Force Institute of Aviation Medicine at Farnborough in Southern England on the possibility of air crews who have to bail out over sea prolonging their lives with the consumption of fish juices. Tests were being made off the British, Middle Eastern, and Far Eastern coasts. It will probably be some time, however, before the Institute will be able to decide if fish juices can be seriously considered of value to "ditched" crews. In time they hope to discover, among other things, whether sufficient juice can be extracted from a fish to provide a man with enough liquid nourishment to keep him alive, whether fish juices are injurious or beneficial, the best and most economical method of extracting juice--by crushing

pressing, or cutting, for example--and the degree of saltiness found in fluids taken from fish of varying types and weights.

Groundfish Fillets (1954), Report to the President on Escape-Clause Investigation No. 25 Under the Provisions of Section 7 of the Trade Agreements Extension Act of 1951, 77 pp., processed. United States Tariff Commission, Washington 25, D. C., May 1954.

Hong Kong Annual Departmental Report by the Director of Agriculture, Fisheries & Forestry (for the Financial Year 1953-54), 89 pp., illus., printed. The Government Printer, Hong Kong, 1954. This publication contains the annual reports of the various divisions of the Department of Agriculture, Fisheries and Forestry. Included in the report of the Fisheries Division is a review of its activities during the year, which were directed mainly to the marine fisheries and the mechanization of the fishing fleet, the fresh-water and oyster fisheries, technical investigations, training of fishermen, advisory and inspection service, and surveys of fishing grounds and the fisheries. The report also describes the Department's fisheries policy and the 1954 Fisheries Exhibition. Tables in the appendix give the number and type of Hong Kong fishing craft and fishermen, landings of the principal varieties of fish marketed by species, and oyster production.

Hong Kong Annual Departmental Report by the Registrar of Cooperative Societies and Director of Marketing (for the Financial Year 1953-54), 43 pp., printed. The Government Printer, Hong Kong, 1954. This report covers the activities of the Department from April 1, 1953, to March 31, 1954. The section on Cooperative Societies discusses education in cooperative activities. Among the subjects discussed in the Fish Marketing Organization section are: legislation, functions of the Organization, quantity and value of fish marketed, fish processing, and education.

Jahresbericht über die Deutsche Fischerei 1953 (Annual Report of the German Fisheries 1953), 327 pp., illus., printed in German. Bundesministerium für Ernährung, Landwirtschaft und Forsten, in cooperation with Mitwirkung des Statistischen Bundesamtes, 72 Neuer Wall, Hamburg 36, West Germany. (Publisher: Mann Bros., Berlin, Germany), October 1954. Presents 1953 statistics for fishery landings and imports in considerable detail as well as the number of vessels, new building, personnel employed, etc. In the section devoted to the main fishing ports of Bremerhaven, Cuxhaven, Hamburg-Altoona, and Kiel, details are given of the firms operating trawlers, together with the number operated and the type. The statistics in this book give a clear picture of the advances made by the German fishing industry after World War II.

Largemouth Bass in Ridge Lake, Coles County, Illinois, by George W. Bennett, 64 pp., illus., printed. Bulletin of the Illinois Natural History Survey, vol. 26, article 2, November 1954, pp. 217-276. Department of Registration and Education, Urbana, Ill.



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Life History of the Striped Bass in Maryland Waters, Supplement Number 3, 2 pp., illus., printed. (Extract from Maryland Tidewater News, vol. 11, no. 9, February 1955.) Maryland Department of Research and Education, Chesapeake Biological Laboratory, Solomons, Md.

"The Lipids of Fish: 5. The Lipids Remaining in the Flesh of the Haddock After Extraction by Aceton and Ethanol-Ether," by June Olley and J. A. Lovern, article, The Biochemical Journal, vol. 57, no. 4 (August 1954), pp. 610-619, printed, 20s. (US\$2.80) net per issue. Cambridge University Press, London, N. W., 1, England.

"Maritime Salmon Catches Since 1949," by C. J. Kerswill, article, Trade News, vol. 7, no. 6, December 1954, pp. 3-10, illus., printed. Department of Fisheries, Ottawa, Canada. A report on both the commercial landings and the angling catches of Atlantic salmon in the Maritime region for 1949-54. The statistics are also summarized graphically. The author states that "Comparing the 1954 total catches of Atlantic salmon in the Maritime Region with those of the past two years, the commercial landings by weight were higher and almost the same number of fish were caught by anglers. Angling on many rivers was handicapped by unusually high water in 1954 and commercial fishing in some areas was made more difficult than usual by bad weather and fouling of nets. The poorer catches in some areas are not believed to have been caused by fewer salmon in 1954. There is good reason to expect that recovery is taking place from the downward trend in salmon abundance that has been noticeable in the Maritime Region over the past few years."

"New Advances in the Study of Bivalve Larvae," by V. L. Loosanoff, article American Scientist, vol. 42, no. 4, October 1954, pp. 607-624, illus., printed, single copy 50 cents. American Scientist, 54 Hillhouse Avenue, New Haven, Conn. This article is concerned with recent developments and improvements in the methods for obtaining eggs and sperm of bivalve mollusks and for growing the larvae in laboratory cultures. It also discusses briefly certain results that have been achieved because of the successful use of these methods, many of which were developed during the past few years. Methods of maintaining ripe mollusks during the winter months and of growing organisms under varying conditions of food and medium concentrations are fully described.

Norwegian Fishing News, vol. 2, no. 1, 1955, 28 pp., illus., printed, annual subscription 15 Norwegian kroner (US\$2.10). Norwegian Fishing News Ltd., Bergen, Norway. A new bimonthly magazine containing articles on all phases of the Norwegian fishery industries.

Norwegian Joint Stock Banks, Financial Review, vol. 29, no. 3, July 1954, 12 pp., illus., printed. Norwegian Bankers Bureau of Statistics and Information, Oslo, Norway. Includes, among others, discussions of the Norwegian herring meal and herring oil industry, the production and prices of whale oil, economic developments, and foreign trade in fish and fishery byproducts.

"Notes on the Feeding Habits of Subsurface Yellowfin and Bigeye Tunas of the Eastern Tropical Pacific Ocean," by Rolf Juhl, article, California Fish and Game, vol. 41, no. 1, January 1955, pp. 99-101, printed. California Department of Fish and Game, 926 J Street, Sacramento 14, Calif.

Operation of the Trade Agreements Program, Sixth Report, July 1952-June 1953, 260 pp., processed. United States Tariff Commission, Washington 25, D. C., 1954. This is the sixth report of the Tariff Commission on the operation of the trade agreements program, covering the period from July 1952 through June 1953. During the period covered by the report, the United States concluded no new trade agreements. It did, however, conclude a supplemental agreement with Venezuela, revising the bilateral trade agreement entered into by the two countries in 1939. The report discusses the concessions that the United States granted and obtained in the supplemental negotiations with Venezuela, as well as the changes that were made in the general provisions of the agreement with that country. It also covers important developments respecting the General Agreement on Tariffs and Trade. Like the earlier reports, the sixth report also discusses such matters as changes in tariffs, exchange controls, and quantitative restrictions on imports by contracting parties to the General Agreement; changes in tariffs, exchange controls, and quantitative restriction on imports by countries with which the United States has bilateral trade agreements and actions of the United States relating to its trade agreements program.

The sixth report was prepared in conformity with Executive Order 10082 of October 5, 1949, which directs the Tariff Commission to submit to the President and to the Congress at least once each year a factual report on this subject. The first report in the series (issued in 1948) covered the period from June 1934 through April 1948; the second report (issued in 1949) covered the period from May 1948 to April 1949; the third report (issued in 1951) covered the period from April 1949 through June 1950; the fourth report (issued in 1952) covered the period from July 1950 through June 1951; and the fifth report (issued in 1953) covered the period from July 1951 through June 1952.

Outcome or Current Status of Applications for Escape-Clause Investigations, by the United States Tariff Commission, as of August 23, 1954, 30 pp., processed. United States Tariff Commission, Washington 25, D. C., September 1954.

(Pacific Marine Fisheries Commission) Seventh Annual Report of the Pacific Marine Fisheries Commission for the Year 1954 (To the Congress of the United States and to the Governors and Legislatures of Washington, Oregon, and California), 20 pp., printed. Pacific Marine Fisheries Commission, Portland, Ore. Describes briefly the activities of the Commission and contains a short resume of the one meeting of the Commission during 1954. Also included are summaries of reports submitted by the participating agencies on the research conducted in 1954 on the following marine species and fisheries: ocean salmon troll fishery, otter trawl fishery, sablefish (black cod), and albacore tuna. In addition, contains a financial report of the Commission.

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Peruvian Fishery Supplement to the Peruvian Times, 20 pp., illus., printed, December 24, 1954.

Peruvian Times, Lima, Peru. Contains a review of the Peruvian fishing industry and a translation of the proceedings of and agreements reached at the Second Tripartite Conference on the Maritime Resources of the South Pacific held in Lima on December 1-4, 1954. Also includes statistics on production of fish in Peru, and Peruvian fish exports by countries and by products.

"A Preliminary Report on the Spawning of the West-North Atlantic Bluefin Tuna (*Thunnus thynnus*) in the Straits of Florida," by Luis Rene Rivas (Contribution No. 130 from the Marine Laboratory, University of Miami), article, Bulletin of Marine Science of the Gulf and Caribbean, vol. 4, no. 4 (December 1954), pp. 302-322, illus., printed, \$2 per issue. University of Miami Press, Coral Gables, Fla. Evidence indicating that the western north Atlantic bluefin tuna spawns in the Straits of Florida during May and early June is presented. Such evidence includes the occurrence of ripe and recently spawned adult fish simultaneously with what may be fertilized eggs and larvae. Further evidence includes the occurrence of juveniles and young in the vicinity of the spawning grounds. It is inferred that the large adult fish spawning in the Straits of Florida are the same which are found in northern waters during summer. The discovery of spawning grounds in the western Atlantic also suggests that the American and European bluefin tuna represent separate independent units.

Prepared Crab Products Growing in Popularity, by W. A. Van Engel, Contribution No. 51, 8 pp., illus., processed. Virginia Fisheries Laboratory, Gloucester Point, Va., 1954. (Also in Frosted Food Field, April 1954, pp. 19-20.) Describes how the fluctuations in the blue crab supply in Chesapeake Bay and the need for a completely satisfactory method of freezing crab meat affect the full development of frozen crab products.

Review of Kenya Fisheries, 1953, by Hugh Copley, 44 pp., illus., printed. The Government Printer, Nairobi, Kenya, 1954. Reviews the Kenya fisheries for 1953, with special reference to the river fisheries, hatchery work, a fish-culture farm, oyster research, and marine fisheries. The report on the marine fisheries discusses production, prices, distribution and marketing, and exploratory and experimental work. It describes a study of markets; collection and disposal of shell in various forms; catching, preparation, and sale of turtles, crustacea, and beche-de-mer; and crawfish breeding.

Rockfish for the Fisherman, by Robert S. Bailey, Contribution No. 50, 6 pp., illus., processed. Virginia Fisheries Laboratory, Gloucester Point, Va., 1954. (Also in Virginia Wildlife, vol. XV, No. 3, March 1954.) Describes the striped bass or rockfish sport fishery in Virginia waters, and gives a brief description of the life history of the species.

"South African Pilchard Oil:" "2. Concentrates of Highly Unsaturated Fatty Acids and Alcohols Derived From South African Pilchard Oil," by H. M. Silk, H. H. Sephton, and H. H. Hahn, pp. 574-577; "3. The Fatty Acid Composition of South African Pilchard Oil," by H. M. Silk and H. H. Hahn, illus., pp. 577-582; "4. The Isolation and Structure of a Hexadecatetraenoic Acid from South African Pilchard Oil," by H. M. Silk, and H. H. Hahn, illus., pp. 582-587; articles, The Biochemical Journal, vol. 57, no. 4 (August 1954), printed, 20s. (US\$2.80) net per issue Cambridge University Press, London, N. W. 1, England.

The Story of FAO, by Gove Hambidge, 315 pp., illus., printed, \$6.50. D. Van Nostrand Company, 250 Fourth Ave., Inc., New York 3, N. Y. The author, who is North American Regional Representative of the Food and Agriculture Organization of the United Nations, in this book describes the birth, background, activities, and purpose of FAO, the first of the new United Nations specialized agencies to be established. This book also is the first commercially-published book about any of the specialized agencies of the United Nations. The story of FAO is the story of humanity. The author, in my opinion, has succeeded in making it just that.

Part I discusses the background to FAO. The first chapter through a typical fictional character, Abu Libda, and his family, takes you to Egypt--the villages, the homes of the people, and the fields where they work. The peasants have far too little land to make a decent livelihood, and the chapter tells about the revolutionary and very hopeful movement now under way to carry out national land reform. As a contrast, the next chapter takes you to a farm owned by another fictional character, Jim Barton, in the northeast part of Iowa, and in effect portrays the story of agricultural development throughout the western world. The third chapter, "Narrow the Gap," describes this contrasting situation in broader terms around the world--the contrasts in food supplies, quality of diets, health, length of life, and all the rest.

Part II, consisting of four chapters tells about the genesis and development of FAO. Included are the activities of certain scientific and economic groups in the League of Nations who helped to develop a realization of the extent of undernourishment and incredibly poor living conditions; of the development of knowledge about the contribution food makes to health and length of life; of the postwar depression and unsalable "surpluses" of food in some countries while many people even in those countries were hungry. It tells about the background of the international organization established by the war-time partners to deal with these problems--FAO--and gives a round-up of the earlier activities of missionaries, foundations, and other groups in the kind of work known as technical assistance or technical cooperation. There is a lot of detail to be found in this book about all the early history of FAO which is not found elsewhere.

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Part III deals with technical cooperation in the Near East and Africa, Far East, Latin America, and Europe from the viewpoint of regional projects and work with individual countries. Under this section detailed descriptions of the projects being carried out by FAO in countries around the world and the efforts of these countries to improve their services in agriculture, nutrition, fisheries, forestry, and statistics are included. In order not to clutter up the text with footnotes, the author has eliminated them and included the additional information in an appendix under the proper page number together with some other reference data.

In summary, the early chapters include an account of the basic studies and the fact-gathering work of FAO in agriculture, nutrition, forestry, and fisheries. The last half tells the story of technical cooperation or technical assistance. Fisheries have not been forgotten in this book since they play an important part in supplying food to many countries, and the part they play is adequately covered throughout the book.

The author very aptly points up the value of FAO when he wrote: "Future historians may come to regard this swift growth of an idea--the idea that is the foundation of FAO--as one of the most important characteristic developments of this time. Hundreds, perhaps thousands, of scientists and other experts from many different countries are now scattered all over the world, pushing the frontiers of knowledge and its practical application further outward and helping to effect the innumerable adjustments in age-old institutions and ways that are needed to make new advances possible. Other thousands of young people from lands that have been thought of as backward are attending universities, colleges, and technical schools abroad and returning to work as experts in their own countries. . . ." this is FAO.

The book's value as a reference work is asured by its adequate index. The book is not an FAO publication, and all royalties go to FAO.

--J. Pileggi

Thirteenth 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), 55 pp., printed. Atlantic States Marine Fisheries Commission, 22 West First Street, Mount Vernon, N. Y., December 1954. 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, whiting, Maine herring, fluke, freezing fish in the round at sea, reconstruction of the Service's Woods Hole laboratory, cooperative striped bass program, exploratory tuna fishing, catch statistics, fishery

college in Massachusetts, dams in Connecticut River, dragging operations, industrial fishing, and the technological program. Under the Middle Atlantic Section there is a discussion of projects dealing with shad, gray sea trout (weakfish), sea scallops, yellowtail flounder, hard clams, whiting, Delaware River anadromous fisheries management program, cooperative striped bass program, catch statistics, offshore waste disposal, dragging operations, sport-fishing surveys, menhaden studies, and a statement requesting Saltonstall Act funds for state research. The Chesapeake Bay Section includes discussions of projects concerned with croaker, blue crab, shad, menhaden, clams, Chesapeake Bay Institute, cooperative striped bass program, sport-fishing surveys, Potomac River oyster laws, joint legislature committee on migratory finfish, and a resolution opposing the proposal to discharge mine waste waters. Under the South Atlantic Section a discussion of the following programs is included: shrimp, shad, bluefin tuna, cooperative offshore research program, license fees and severance taxes, catch statistics, cooperative striped bass program, gear development, out-of-state boats in inland waters, sale of fish by anglers, and pollution. Another section of the report deals with the certification of shellfish; catch statistics; Northwest Atlantic fisheries; Amendments No. 1 and No. 2 to the Atlantic States Marine Fisheries Compact--Common Fisheries and Inland Waters; Federal Legislation, Fisherman's Protective Act of 1954; fisheries research; legislation needed; activity of the fishing industry; statement on "social" legislation in the fisheries; sale of fish by anglers; and licenses for salt-water anglers.

"Tuna Longlining: Results of a Cruise to the Eastern Tropical Pacific Ocean," by Robert C. Wilson and Bell M. Shimada, article, California Fish and Game, vol. 41, no. 1, January 1955, pp. 91-98, illus., printed. California Department of Fish and Game, 926 J Street, Sacramento 14, Calif.

The Unpredictable Blue Crab Fishery, by J. L. Mc Hugh and E. C. Ladd, Contribution No. 44, 3 pp., illus., printed. Virginia Fisheries Laboratory, Gloucester Point, Va. (Also in National Fisheries Yearbook, 1953.) Gives the early history of the blue crab fishery, and describes fluctuations in abundance and management of the resource. The approach that has been outlined in this paper represents, in the opinion of the authors, the minimum program necessary to solve the most pressing problem in blue crab management--the effect of fishing on the resource.

"The Unsaturated Fatty Acids of the Alga Chlorella," by R. F. Paschke and D. H. Wheeler, article The Journal of the American Oil Chemist, vol. 31, no. 3, March 1954, pp. 81-85, illus., printed, The American Oil Chemists' Society, 35 E. Wacker Drive, Chicago 1, Ill. (Also Paper No. 145, Journal Series, Research Laboratories, General Mills Inc., Minneapolis, Minn.) The purpose of this paper is to explain the composition of the unsaturated fatty acids of the fresh-water algae Chlorella pyrenoidosa grown in pure culture in pilot-plant quantities.

