



CATFISH FARMING

"A Synopsis of Catfish Farming," by E. Evan Brown, M. G. LaPlante and L. H. Covey, Bulletin 69, College of Agriculture Experiment Stations, University of Georgia, Athens, Georgia, September 1969, 50 pp., illus.

This is a report on contemporary channel catfish research and farming. Particular attention is paid to: 1) spawning and hatching, 2) chemical control of diseases and parasites, 3) pond construction and water quality control, 4) feeding, 5) harvesting, 6) marketing, and 7) expected costs and returns.

CUISINE

"Seafood Moods," sold by Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402, \$0.60.

A new recipe booklet, illustrated in color, featuring seafoods from the states of Washington, Oregon, and Alaska. For years, many of the marine delicacies from these states were available only locally. Now, advanced processing techniques, packaging methods, and transportation make it possible for housewives all over the nation to prepare the traditional culinary favorites of the Northwest.

DESALTING

"Desalination," by Roy Popkin, Praeger, New York, 1968, 235 pp.

Sea and brackish water can be made safe for drinking, farming, and industry by desalting. Mr. Popkin reviews the latest methods of desalination, its future direction, and its costs and values in different circumstances. He also suggests ways to evaluate desalting's role in solving local, national, or regional water problems.

GREAT LAKES LEGAL PROBLEMS

"The Land-Sea Interface of the Great Lakes States of the United States: Legal Problems Arising out of Multiple Use and Conflicts of Private and Public Rights and Interests," sold by Clearinghouse for Federal Scientific and Technical Information, 5285 Port Royal Rd., Springfield, Va. 22151, as P.B. No. 186,000 (3 reels of 16 mm. microfilm), \$27.

A compilation of all the laws and their impact on activities related to the Great Lakes. Hundreds of legal cases, claims, and questions arising from use and exploitation of the lakes, their contiguous waterways, and land areas are listed and summarized. Grouped systematically, they cover such diverse activities as fishing, boating, shoreline construction, dredging, flood control, pollution, etc.

The report is a remarkable repository for the jurist, lawyer, conservationist, developer, and others interested in developing an effective legal machinery to evaluate competing claims and interests.

PACIFIC COAST

"Between Pacific Tides," by E. F. Ricketts and Jack Calvin (4th edition), revised by Joel W. Hedgpeth, Stanford University Press, 1968, 614 pp., illus.

There are few guides to seashore animals based on original observation. This is one of them. First published in 1939, it is still in demand. Perhaps this is because no one else has presented the information in such a readable manner. Although meant for the student or amateur observer, who is limited to the shore, it is equally interesting to the arm-chair explorer. Dr. Hedgpeth's contributions, both scholarly and pungent, add much to the reader's enjoyment. An annotated systematic index and a general bibliography form valuable parts of the book.

RESOURCE MANAGEMENT

"Advances in Marine Biology," vol. 6, edited by F. S. Russell and M. Yonge, Academic Press, New York, 1968, 406 pp., indexed, illus. (3 papers by different authors).

I. Resource Management

"Management of Fishery Resources," by J. A. Gulland, pp. 1-71.

World catches are increasing due to the expansion of local fisheries and the rapidly growing numbers of factory and other vessels operating far from their home bases. These trends have intensified the problems of overfishing, and developed an urgent need for the regulation and management of the resources.

Historically, the fishing industry's classic response to overfishing in one stock has been to move to other, usually more distant, stocks. But this process cannot continue much longer. At the present rate, few substantial unexploited stocks of fish accessible to the present types of gear will remain in another 20 years. The problem is not confined to the high seas; it occurs also in inland waters, where biological problems are essentially the same.

Mr. Gulland urges immediate attention to the problems of proper fishery-resource management. Without some fundamentally new approach, he doubts that the production of world fisheries can keep up with the increase in world population.

The paper covers: depletion of marine resources; methods of regulation and limitation; mechanics of management and international law; territorial seas and specialized fishery bodies, and problems and prospects of future progress.

II. Fish Culture

"A General Account of the Fauna and Flora of Mangrove Swamps and Forests in the Indo-West-Pacific Region," by William Macnae, pp. 73-270.

Contains some interesting information on pond culture of fish and prawns in mangrove swamps.

III. Arrow worms

"Some Aspects of the Biology of the Chaetognaths," by Elvezio Ghirardelli, pp. 271-375.

This review of certain aspects of the biology of chaetognaths pays particular attention to the biology of reproduction, and to some organs and functions not previously studied.

SHELLFISH SANITATION

"Proceedings, Sixth National Shellfish Sanitation Workshop," edited by George Morrison, Department of Health, Education, and Welfare, 115 pp. Copies may be obtained from Shellfish Sanitation Branch (RC-310), Bureau of Compliance, Food and Drug Administration, 200 C St. SW., Washington, D. C. 20204.

The Workshop was held February 7-9, 1968, to discuss administrative and technical problems, review current research and technical developments, and consider proposals for changes in the "Manual of Recommended Practice for Sanitary Control of the Shellfish Industry."

This report, based on the papers presented, includes a verbatim transcript of the proceedings. The workshop dealt with market standards, refrigeration, sewage outfalls, depuration, imports, and waste dumping at sea and its effects on continental shelf resources.

The report includes the guides for pesticides, radionuclides and ciguatera-like toxins in shellfish adopted for inclusion in the Manual.

SOCIO-ECONOMIC RESEARCH

"An Evaluation of Lake Trout Ice Fishing on Three New Hampshire Lakes," by Robert H. Forste, Research Report No. 6, New Hampshire Agricultural Experiment Station, Durham, New Hampshire, January 1969, 16 pp., illus.

The report analyzes data on value of equipment and expenditures associated with the fishery. It identifies selected social characteristics of the fishermen, and some characteristics of the fishery itself. Mr. Forste also describes his methodology and statistical procedures.

TROUT

"Trout Streams," by Paul R. Needham, annotated by Carl E. Bond, Holden-Day, Inc., 500 Sansome St., San Francisco, Calif. 94111, 241 pp., illus., \$8.50.

This classic guide to trout and the streams in which they live was first published in 1938. It contains a wealth of information as pertinent now as the day it was written. The annotations cover the advances in fishery research and management made in the intervening 30 years. The notes both complement the text and refer the reader to sources of additional information. Scientific nomenclature has been brought up to date. The result is a single reference bringing together the most reliable and up-to-date information on trout, trout foods, and stream biology.

THE FOLLOWING PUBLICATIONS ARE AVAILABLE FROM PUBLICATIONS UNIT, BCF, 1801 N. MOORE ST., ARLINGTON, VIRGINIA 22209:

FISH & CRAB MEALS

"Value of Menhaden, *Brevoortia tyrannus*, Meal as a Protein Supplement to Cottonseed-Corn Diets for Pigs," by Robert R. Kifer and Edgar P. Young, "Fishery Industrial Research," Vol. 5, No. 4, pp. 133-142.

Although cottonseed meal has been used successfully in pig diets as a protein supplement to corn, the quality of the protein in these tests apparently is not the best for growth. This paper describes the methods and results of studies made to determine the value of menhaden meal as a supplement to such diets.

"Relative Chemical Composition and nutritive Values of King Crab, *Paralithodes camtschatica*, and Blue Crab, *Callinectes sapidus*," by Robert R. Kifer and Paul E. Bauersfeld, "Fishery Industrial Research," Vol. 5, No. 3, pp. 121-131.

Blue crab meal has a high supplementary nutritive value for poultry when combined with other protein supplements. Alaska king crabs often are harvested in such volume that quantities of processing waste are sufficient for reduction into meal. This report describes the suitability of king crab meal for use in broiler diets.

QUALITY CONTROL

"Evaluation of Muscle Hypoxanthine and Volatile Bases as Potential Quality Indices for Industrial Bottomfishes from the Gulf of Mexico," by Enrique J. Guardia and Gerhard J. Haas, "Fishery Industrial Research," Vol. 5, No. 3, pp. 117-120.

Croaker and Spot are the 2 fishes found most commonly in industrial bottomfish catches in the Gulf of Mexico. A hypoxanthine test can indicate the quality of both and, presumably, that of the whole catch. A test for volatile bases can not be used for freshness because total volatile bases do not increase until after the fish has been stored one week on ice. It can be used as an index of spoilage. The authors describe their material, methods, and results.

LIPIDS

"Use of Electron Paramagnetism in Research on Fish Lipids," by William T. Roubal, "Fishery Industrial Research," Vol. 5, No. 3, pp. 107-115, illus.

The products of lipid oxidation cause undesirable alterations, not only in lipids themselves, but also in the quality of associated proteins, enzymes, and other biomolecules. Mr. Roubal explains the technique of measuring the paramagnetic properties of biochemical systems, and gives examples of how measurement of these properties can be applied in research on fish lipids.

SHRIMP POTS

"Test-Tank Studies of Shrimp-Pot Efficiency," by Doyne W. Kessler, "Fishery Industrial Research," Vol. 5, No. 4, pp. 151-160, illus.

The design of the entrance to a shrimp pot may be an important factor in the pot's efficiency. In the past, efficiency was evaluated by catch analysis, rather than by observation. The studies described in this paper represent the first use of the observational technique by the BCF staff at Juneau, Alaska. Efficiency was measured in terms of the number of shrimp entering and escaping pots with different types of entrances.

--Barbara Lundy

