

## Salmonid Broodstock, Black Cod, and Successful Fishing Piers

**"Salmon Broodstock Maturation,"** edited by Terry Noshko and published by the University of Washington Press, Seattle, contains the proceedings of workshops conducted in that city on 20-22 May 1980 and 11 March 1981. The workshops were held owing to poor survival rates with maturing broodstock and extreme variations in gamete fertility reported by salmon farmers from Alaska to Oregon.

Sessions during the first workshop dealt with the returning broodstock, captive broodstock, factors influencing adult survival and maturation, and gamete viability and fertility. The follow-up workshop was held to monitor improvements and report research progress. Adult salmon survival and gamete viability did improve primarily owing to improvements in fish culture techniques and use of freshwater to trigger the maturation process.

The 92-page paperbound volume (WSG-WO-80-1) is available for \$3.00 from Washington Sea Grant Communications, 3716 Brooklyn Avenue, N.E., Seattle, WA 98105.

**"Black Cod, Boom or Bust?"**, also published by Washington Sea Grant, contains the proceedings of a seminar in Seattle on 27 February 1980. Edited by Charlotte Henry, the 25-page paperbound booklet addresses the location and status of black cod stocks, harvest methods, preservation and quality of the fish, and marketing. Copies of the report (WSG-WO 81-1) are available from the publisher for \$1.50 each.

**"Fishing Piers: Design, Operation, and Use"**, by Raymond M. Buckley and James M. Walton, has been published by

Washington Sea Grant. The authors surveyed such facilities in Florida, Texas, and California to determine what designs and management strategies provide the greatest angler satisfaction and good catches, while still protecting the fishery resources.

Pier location and construction are extremely important, say the authors. In

### *Locating, Counting, and Catching Fishes*

Publication of **"Echo Sounding & Sonar for Fishing,"** an FAO Fishing Manual, has been announced by Fishing News Books Ltd., 1 Long Garden Walk, Farnham, Surrey, England. The manual is designed to provide essential background information on physical fundamentals and equipment technology, and on their employment under different fishing conditions. Intended primarily for fishermen, instructors, and extension workers, it should also be useful to boat owners and fishery managers.

Beginning with a chapter on sound in water and its general properties, the book then describes echo sounders and explains their components, controls, and uses. Various types of echo sounders, with their variables, are explained, with hints on choosing the most suitable type for different purposes. Other chapters discuss the components, use and function of sonar, many of the types available, and the interpretation of echograms and sonargrams.

many cases, habitat enhancement structures under and around a pier may be needed to increase the number of fish available to anglers. Physical amenities such as comfortable benches, fish cleaning stations, weather screens, bait and tackle concessions, good parking, and convenient public transportation are also desirable.

Each pier must be managed on a site-specific basis, according to the authors, taking into account the species and abundance of both resident and migratory fish, available funds, angler needs, and the goals of the pier owner or operator. This report (WSG 81-1) will be of interest to those planning to build or operating fishing piers. It is available from the publisher for \$2.50.

In addition, another report **"Commercial Fish Landings, Washington State Ports, 1971-1979"**, by Terry Noshko, Roland Tomokiyo, and Dale Ward (WSG 80-4) is available for \$1.50.

A chapter on fishing with echo sounder and sonar explains the use of the equipment in demersal fishing, pelagic trawling, purse seining, rock and wreck fishing, fishing with light and lures, and bottom trawling with sonar. The 120-page softbound volume costs £6 plus 60p postage.

**"Introduction to the Use of Sonar Systems for Estimating Fish Biomass"** by J. Burczynski, FAO Fisheries Technical Paper 191, describes how a sonar system functions and how to use it for estimating fish biomass and determine the spatial distribution of fish. Chapters include "The Sonar System as a Means for Fish Detection and Biomass Estimation," "Elementary Hydroacoustics," and "How to Obtain Quantitative Information on Fish by Echosounding." Appendices explain the concepts of decibel units, plane and solid angles, beam forming of a transducer, averaging by integration, and performance checks of echo integrators and echosounders. The 89-page paper-bound volume is available from Unipub, 345 Park Ave. South, New York, NY 10010 for \$6.00.

**“Bottom Trawls for Small-Scale Fishing,”** by J. C. Brabant and C. Nédélec, FAO Fisheries Technical Paper 189, contains the designs of high-opening bottom trawls which could be suitable for 50-180 horsepower small-scale fishing trawlers operating in coastal waters and large lakes. It supplies all necessary information for the construction of these trawls as well as for the preparation and adjustment of their rigging. The paperbound volume is available also from Unipub for \$7.50.

## Salmon Handling and Freezing Techniques

**“Principles for Handling Salmon on Freezer Vessels,”** by Inspection Officer C. Ann Davies, is a small, 24-page, booklet published by Canada’s Department of Fisheries and Oceans. It incorporates advice from Fish Inspection officers, fishermen, and technologists and is aimed at owners and operators of salmon-freezing vessels.

The author provides good, concise data on how to land top quality fish, discusses vessel sanitation and stunning, handling, bleeding, and dressing the salmon. Rigor mortis, freezing techniques, and cold storage techniques are also explained. The booklet is available from the Inspection Branch, Fisheries and Marine Service, Room 301-326 Howe Street, Vancouver, B.C., Canada, V6C 2A5.

## Aquaculture Progress in Southeast Asia

The journal *Aquaculture* has published a special issue 20(3), on Southeast Asian aquaculture and devoted mostly to papers presented by recipients of grants from the International Foundation for Science, Stockholm, Sweden.

The papers are introduced with an overview of Southeast Asian aquaculture by M. N. Kutty of the Fisheries College at India’s Tamil Nadu Agricultural University. Additional papers relate studies on the cage culture of the Nile tilapia, *Tilapia nilotica*; grouper, *Epinephelus salmoides*; and the marble goby, *Oxyeleotris marmorata*. Another paper relates experiences with polyculture of milkfish, *Chanos chanos*,

all-male Nile tilapia, and snakehead, *Ophicephalus striatus*, in freshwater ponds.

Other papers deal with larviculture techniques and isosmotic rearing of *Macrobrachium rosenbergii*. Papers on temperature and salinity effects on survival of freshwater mullet, *Rhinomugil corsula*; stimulation of ovarian maturation by sustained hormone preparations; some aspects of the biology of Malaysian riverine cyprinids; and trace metal environmental pollution problems in mussel farming in Malaysia are also presented.

The volume, 20(3):155-304, is available from the publisher, Elsevier Scientific Publishing Company, Jan van Galenstraat 335, P.O. Box 330, 1000 AH Amsterdam, The Netherlands, for \$34.25.

## West African Fishery Report Is Available

A report on fishery resources, landings, catch values, trade, and development plans for countries of the CEECAAF (Committee for Eastern Central Atlantic Fisheries) area of West Africa has been published. The study, entitled **“A Summary Overview of Fisheries in the CEECAAF Region,”** (CEECAAF/TECH/80/21) was authored by M. Ansa-Emmim, I. Mizuishi, and G. V. Everett, who heads the FAO Interregional Fisheries Development and Management Program (CEECAAF Component). CEECAAF is one of the FAO’s regional fishery development projects primarily funded by the United Nations Development Program (UNDP).

The report provides information not usually found in other studies of West African fisheries. Numerous statistical tables covering fishery agreements, imports and exports, and fish prices in selected CEECAAF countries accompany the text. The CEECAAF countries of West Africa include Benin, Cameroon, Cape Verde, Congo, Gabon, The Gambia, Ghana, Guinea, Guinea Bissau, Ivory Coast, Liberia, Mauritania, Morocco, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone, Togo, and Zaire.

A copy of this report (cost, if any, is unknown) can be obtained by writing to: CEECAAF Project, 56 Avenue Pompidou, P.O. Box 154, Dakar, Senegal.

## South African and Namibian Fisheries

The U.S. Consulate General in Cape Town, South Africa, has prepared a report entitled **“Fishing: Total Commercial Catch, Production of Processed Fishery Products, and Consumption—1979.”** The report describes the pelagic and demersal fisheries of South Africa and Namibia, local fishing seasons and vessels, and the rock lobster industry in 1979. The study also includes 1979 data on catches, fish processing, and domestic consumption.

South Africa, whose 1979 catch of almost 659,000 metric tons (t) ranked 23rd in the world, is the leading fishing nation in Africa. A highly developed fishing industry, including modern processing plants, vessels, and port infrastructure, is complemented by a high demand for fish and fishery products. South Africa provides an export market for selected fishery products. In 1980, South Africa imported 765 t (worth over \$3 million) of U.S. fishery products, mainly fresh and canned salmon and salmon fillets.

The complete report may be purchased for \$5.00 by ordering DIB 80-11-001 “Republic of South Africa: Fishing, Total Commercial Catch, Production of Processed Fishery Products, and Consumption—1979” from: NTIS, U.S. Department of Commerce, Springfield, VA 22161.

## Japan’s Fisheries, 1980

The Japan Fisheries Association has prepared a 49-page report entitled **“Fisheries of Japan, 1980.”** The report describes major trends in Japanese fisheries. Separate chapters are devoted to fisheries catch, processing, marketing, and financing. Two useful sections of the book describe Japanese fisheries administration and list the names and addresses of fishing companies and associations belonging to the Japan Fisheries Association.

A copy of the report can be obtained by requesting “Fisheries of Japan, 1980” from the Foreign Fisheries Analysis Division, National Marine Fisheries Service, Washington, DC 20235, and enclosing a 9 × 12 inch self-addressed envelope with \$1.03 postage. A limited number of copies are available.