

exists, is caused by insufficient egg production. This may be the case in some fisheries, but it is considered by fishery scientists that scarcity is usually caused by other factors and that the egg potential of a relatively small population is sufficient to maintain the stock. Protection of a certain segment of the spawning population is certainly essential, but this can be better accomplished by size limits than by closed seasons. Female fish caught a month before the spawning season are as surely lost as reproducing units as those caught during the spawning season.

In cases where fish are in poor condition during the spawning period and are thus of less value in the market, they should be protected from capture. In the case of the mullet, however, the female fish are of considerably greater value when they are in full roe, since the roe brings a high price. To prevent the capture of these fish would greatly reduce the value of the fishery.

At present the closed period is fixed in west Florida at a time when little fishing is done, because of scarcity of mullet. It does not serve to protect spawners. The success of these proposals as a whole depends on rigid enforcement. Other states are able to do the job, and Florida must do so as well. This argument in favor of abolishment of the closed season on mullet now does not mean that a closed season may not be desirable at another time, or, more important, for other species in Florida. Inability to regulate other fisheries by size limits might easily leave no alternative than to suggest closed seasons for other fish as a means of reducing fishing effort. Furthermore, new information, or changed conditions, may necessitate re-imposition of closed seasons on mullet at some future time.

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Review of the Caribbean Fisheries Conference Held in Trinidad in March, 1952

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Some background of the Caribbean Fisheries Conference that was held in Trinidad during March of 1952 can be obtained from the foreword of the Report. "The Caribbean Commission and its predecessor, the Angle-American Caribbean Commission, have always given prominence to the subject of fisheries. The Angle-American Caribbean Commission included fisheries in the agenda of the West Indian Conference (First Session), held in Barbados in March 1944; the Caribbean Commission included fisheries in the three fields selected for emphasis at its Thirteenth Meeting, held in St. Croix in November 1951.

"A Caribbean Fisheries Conference was recommended by the Caribbean Research Council in 1950. Owing to financial considerations, and to the time required for its preparation, the conference was not convened before March, 1952. The attendance of representatives of the territories of the four

National Sections of the Commission, the United States of America and the United Kingdom, and by observers from the territories and from the Food and Agriculture Organization of the United Nations, the Marine Laboratory of the University of Miami, and the Government of Canada, testifies to the importance attached to this subject in the Caribbean area."

Following on the recommendation of the Caribbean Research Council at its third meeting in June 1950, that a Fisheries Conference should be held, the Commission accepted this recommendation, but subsequently found itself unable to make provisions for the conference in its 1951 budget. The Research Committee in Agriculture, Fish, Wildlife and Forestry of the Research Council urged the Commission at its meeting in April 1951 to reconsider its decision, and convene a Fisheries Conference before the end of 1951, considering "That the time is ripe to hold such a conference owing to the presence of a number of marine biologists, and fishery specialists, and the great need for assisting junior fishery personnel in the area."

The Commission accepted this recommendation and a Preparatory Committee was convened in July 1951 to prepare the agenda for the conference, which the Committee recommended should be held in March 1952.

In planning the agenda, the Preparatory Committee, of which the writer was a member, felt that many reports had been written from time to time on the several fisheries of the Caribbean, but unless one was really fortunate enough to have all the reports at his disposal, it would be quite likely that some important point might well be missed.

However after circulating Governments for information, additions to the agenda prepared by the Preparatory Committee were proposed by the Caribbean Research Council, the Caribbean Commission, the Government of British Guiana, the Government of Barbados and the Secretariat, and the final agenda for the conference covered the following subjects:—

1. Occurrence and distribution of commercial fish species in the Caribbean, including lobsters, shrimps, oyster, sea urchins, etc.
2. Techniques practiced in the Caribbean for fish capture.
3. Types of fishing craft in use in the Caribbean.
4. Marketing, including storage and distribution.
5. Methods used for conserving and processing fish in the Caribbean.
6. Cultivation of fish in ponds.
7. Application of recent technical knowledge to exploration and development of new fisheries.
8. General matters:
 - (a) Recommendations of the West Indian Conference, First Session, 1944:
 - (i) Designation of Fishery Experiment Station at Mayaguez, Puerto Rico, as the center for technological research and information services in the Caribbean, and for biological research relevant to its own area.
 - (ii) Establishment of a Fishery Research Institute in the British West Indies.
 - (iii) Importation of fishing gear on the same terms in respect of customs duties as agricultural equipment.

- (iv) Application and extension of co-operative principles to the fisheries with regard to marketing, credit and savings, purchase of gear, and insurance.
- (v) Provision of educational facilities to fishermen.
- (vi) Appointment and training of fishery officers.
- (b) Preparation and collection of fisheries statistics.
- (c) Recommendation of the Industrial Development Conference regarding fish processing.
- (d) Relations with FAO Fisheries Council for Latin America.
- (e) Proposal of the Government of British Guiana regarding central measures or close seasons in respect of fishing in Caribbean territorial waters.

From the foregoing agenda, it will be realized what an ambitious effort this was, but it was felt that every opportunity should be taken to bring these matters to the attention of the territorial governments.

A collection of documents were submitted by fishery personnel attached to several Government Organizations dealing with the following phases of fishery development:—"Blackfish Hunting off St. Vincent" was presented by R. S. Rack, Fishery Adviser to the Windward Islands. "The Application of Recent Technical Knowledge to Exploration and Development of New Fisheries" was submitted by Richard T. Whiteleather. "Experience of the Government of Puerto Rico in the Development of the Commercial Fishing Industry" was presented by Luis C. Bonnet. "The Lobster Industry of British Honduras", was presented by Evan P. Bradley, Fishery Officer. "The Distribution of Fish Species in the French West Indies", by Dr. Merice and Dr. Cadenat, "Fish Culture in Brackish Water Ponds" was presented by E. J. Reijntjes, "The Work and Proposed Programme of the Department of Agriculture of British Guiana" was presented by W. H. Allsepp, Fishery Officer. "Flying Fish Research in Barbados" was reported on by the writer as well as the Government's assistance in the fishing industry of Barbados.

Many of these papers cover a wide field of development in their respective territories over the last six to ten years and any one interested in Caribbean development is urged to write the Central Secretariat of the Caribbean Commission and request a copy of the report "Fisheries in the Caribbean", as all of these papers form an appendix of the general report.

A very useful discussion took place on "The Establishment of a Fisheries Research Institute in the British West Indies." We were fortunate to have that discussion led by Dr. Walton Smith, Director of the Marine Laboratory of the University of Miami, and Richard T. Whiteleather, of the Fish and Wildlife Service. At the conclusion of these discussions it was resolved that the Caribbean Commission should be asked to sound out all Governments and other organizations from which financial assistance could be brought to bear on this important matter. Fishery men in the Caribbean area are still hoping that this initial effort in bringing the need of research to the notice of Government and organizations will meet with the success it deserves.