The Activities of the Gulf States Marine Fisheries Commission, October 1950 - October 1951

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FOREWORD—The marine fisheries compact, entered into by the states of Alabama, Florida, Louisiana and Texas in July of 1949 and Mississippi in January of 1950, continues to attest in a high degree to the value of such interstate organizations. Until the formation of the Gulf States Marine Fisheries Commission there was no interstate fishery organization representative of the five Gulf states. The lack of this central coordinating medium is a principal reason for the long delay by the federal government in authorizing offshore programs of fishery explorations and research. Also, prior to the signing of the compact, no medium was available to the states for joint interstate action designed to lead to the better management of the coastal fisheries.

STATE FISHERY PROGRAMS— Added impetus to existing fishery programs and the developing of new programs is now in evidence in all states. Money derived from the sale of dead oyster and clam shells provide most of the funds being made available by the states for expanded research and reclamation work.

All states participated in oyster reef restoration during the past year. In Alabama, Mississippi and Louisiana, development of the oyster fisheries will continue to be the chief objective for the year 1951-52. In Florida and Texas the oyster programs will be supplemented, with the former state continuing studies of the mullet and other species and carrying on both biological and technological work on Key West Brazilian shrimp, and Texas progressing the ecological survey of the 135 mile long Texas Laguna Madre, along with fin and shellfish studies.

RECIPROCAL FISHERY AGREEMENTS—During the past year Alabama and Mississippi completed a reciprocal shrimp agreement. Alabama and Florida completed such an agreement several years ago, as well as did Louisiana and Mississippi. The Louisiana legislature has not made any changes in existing laws on the subject of reciprocal agreements. It is possible that the next regular session of the Louisiana legislature, meeting in May of 1952, will give the matter consideration. In Federal District Court, per decree entered August 20, 1951, certain sections of the Louisiana Revised Statutes of 1950 were ruled unconstitutional, insofar as they affect non-resident fishermen and non-resident fishing boats. Motion has been filed for a new trial, which his now pending. Texas does not have reciprocal fishery agreements with any state. Such authority was not extended by the 1951 Legislature. Texas waters are now open to fishermen of any state with the paying of a nominal annual boat license of $6.00 plus $3.00 per fisherman plus $15.00 trawl license. Litigation in Texas was decided some months ago by courts in that state in favor of non-resident fishermen on the same issues as have been raised in the currently pending Federal Court case in Louisiana.

SHRIMP STUDY—Commission Informational Bulletin No. 1 was issued May 15, 1951 and directed to the legislators and marine fishery administrators of the several states for such consideration as might be deemed appropriate in the development of laws and regulations pertaining to the shrimp fishery of their state. A comprehensive report of the reaction to the suggested regulations will be available within the coming year. As more scientifically sound

information becomes available, such data will be passed to the proper state authorities.

SHRIMP IMPORTATIONS—Two schools of thought have developed in the shrimp industry, with one continuing effort for federal legislation to limit imports, and the other having assumed a passive attitude with regard to imports legislation but having entered into an association with Mexican interests to promote consumer consumption of shrimp. At the second annual meeting of the Commission, Biloxi, Mississippi, October 18-19, 1951, the Commission and representatives of industry present agreed on the need for an impartial survey of the shrimp industry as a possible solution to conflicting thinking in terms of limiting the volume of shrimp imports.

INSHORE OCEANOGRAPHIC SURVEY—Through the cooperative effort of the several Gulf States and the Fish & Wildlife Service, the Commission hopes to see the initiation of an inshore oceanographic survey during the year 1951-52. Such a survey of the coastal bays and estuaries would complement and supplement a project of this nature which is now being progressed by the Fish and Wildlife Service in the open waters of the Gulf.

MARINE FISHERIES STUDENT EDUCATION—The Commission has gone on record as favoring an educational program to be directed toward familiarizing the younger generation with matters relating to the marine fisheries, the same to be channelled through science teachers of coastal graded schools in each of the compacted states. Preliminary work is now underway and it is hoped by the summer of 1952 such teacher courses will be made available in selected areas of each state.

MONTHLY STATE LANDING RECORDS—Four of the five Gulf States are publishing monthly landing records, in cooperation with the Fish & Wildlife Service. These records are continuing to show improvement. 1951-52 publications are expected to show additional information, such as; area of catch, (particularly shrimp); further breakdown of edible and non-edible fishes; and, attributable reason for production fluctuations such as normal seasonal weather, economic, or others.

GULF EXPLORATORY FISHING PROGRAM—The Commission voted at its second annual meeting not to request the Fish and Wildlife Service to make any changes in the current program of explorations until the Gulf waters have been completely explored for shrimp and a comprehensive report rendered as to conclusions. The present exploratory program coordinated with the Fish and Wildlife Service at a meeting in Mobile, Alabama, July 1950, involves the three species, shrimp, tuna and snapper, with shrimp receiving primary consideration.

It is expected that exploratory efforts will be directed in the months immediately ahead toward the perfection of gear necessary to capture Brazilian shrimp known to exist in the offshore areas between Cedar Keys and Fort Myers, and in which area the loggerhead sponges have been a deterrent. Initial explorations for Brazilian shrimp in the offshore area lying between Apalachicola and Choctawhatchee Bays indicate the desirability for further study. Additionally, further effort to locate concentrations of the scattered Brazilian shrimp off the coast of Texas is anticipated. The growing demand for further knowledge of the widely dispersed red shrimp warrants additional explorations.

The appearance of tuna in large schools in the deeper Gulf waters, in all directions from the mouth of the Mississippi River in the late summer of this year, points to the possibility of developing a Gulf tuna hatchery.

Explorations and gear development studies involving the red snapper are expected to continue.

GULF BIOLOGICAL PROGRAM—The research vessel *Alaska*, sister ship of the exploratory vessel *Oregon*, since going into service in April 1951, has completed three cruises in the Gulf. The vessel has covered 7,000 miles of Gulf water and has occupied 125 stations. During the cruises 1156 salinity determinations were made. Plankton tows have resulted in a considerable number of fish eggs and larvae being collected. Identification is progressing slowly because of the relatively small amount of information available on the life history of the Gulf fishes. Water fertility analyses, phosphates and nitrates, have been run on 371 samples. Early determinations point to highest concentrations inside the 100 fathom curve. Initial observations suggest the possible occurence of more fish within the area of the continental shelf than in the deeper waters beyond.

RED TIDE INVESTIGATIONS—The sampling over a prearranged series of stations extending from the rivers to the 100 fathom contour in the vicinity of Boca Grande for a study of the local oceanography, nutrients and plankton has been completed. The data collected are now being analyzed. One tentative conclusion is that the phosphate content of the waters examined in the same order, is in agreement as that of waters of the Gulf as a whole, as shown by the work of the *Alaska*.

All plankton collected during the past year has been examined and the data resulting are being set up on punch cards for analytical studies.

A recent small scale blooming of dinoflagellates in the Indian River section of Florida provided a testing ground for some of the newer ideas on plankton blooms. Culture studies on the nutritional requirements of dinoflagellates and other marine organisms have been continued at the Service's Beaufort, N. C. laboratory.

GULF OYSTER INVESTIGATIONS—In brief, the purpose of the Gulf Oyster Investigations is to find out how to produce more and better oysters with the most economical expenditure of time and money. To achieve this end, efforts have been progressed in several directions simultaneously. These different approaches to the problem include an understanding of the following:

The annual reproductive cycle of the oyster in the Pensacola, Florida area; the growth pattern of the oyster in relation to the maximum yield of meat; the importance of parasites and predators in oyster mortalities; and, methods of improving the quality of the laboratory stock of oysters.

Several of the individual units of research which make up the program of the Gulf Oyster Investigations have been brought to a conclusion. These results are in the process of analysis and will appear in manuscripts which are now being prepared. In 1952 approximately 65 per cent of the Pensacola Laboratory's time will be spent on continuing projects such as the seasonal study of the oyster in relation to environmental change and the work on genetics of the oyster. By the spring of 1952 it is estimated that 30 per cent of the research time will be available for the initiation of new studies. Much of this available time will be devoted to a more exhaustive study of methods for trapping and otherwise controlling the oyster drill.