TAMPA, FLORIDA - HOTEL TAMPA TERRACE OCTOBER 15-16, 1953 - MEETING M-16

GULF STATES MARINE FISHERIES COMMISSION

Fourth Annual Meeting
Tampa, Florida
Hotel Tampa Terrace
Rooms 212-214
October 15 (Thursday) & October 16 (Friday) 1953

PROGRAM

(Mr. Howard D. Dodgen, Commission Chairman, Presiding.)

9:30 AM CALL TO ORDER.

12:30 PM

2:00 PM

DISCUSSION.

ROLL CALL OF COMMISSIONERS AND INTRODUCTIONS.
WELCOME: Honorable Richard W. Ervin, Attorney General
State of Florida, Tallahassee, Florida.

SUGGESTED PROGRAM FOR FURTHER RESEARCH ON THE GULF SHRIMP: Dr. L. A. Walford, Fish and Wildlife Service.

PANEL DISCUSSION PERIOD:

MESSRS. Walford (Presiding), FWS

COLLIER	FWS Florida Alabama Mississippi Louisiana Texas	
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REVIEW OF STATE MARINE F	ISHERIES AGENCY ACTIVITIES I	OURIN G
THE YEAR 1952-53 AND PLA		· • • • • • • • • • • • • • • • • • • •
PANEL: MESSRS.	Florida Alabama Mississippi Louisiana Texas	

GULF STATES MARINE FISHERIES COMMISSION 312 Audubon Building New Orleans 16, Louisiana

M I N U T E S (Extract of Transcript)

FOURTH ANNUAL MEETING, OCTOBER 15-16, 1953 HOTEL TAMPA TERRACE, TAMPA, FLORIDA

OFFICIAL ATTENDANCE OF COMMISSIONERS:

	PRESENT	ABSENT
ALABAMA:	W. C. Holmes	Earl M. McGowin Thomas A. Johnston, III
FLO RIDA:	Charlie Bevis William J. Hendry D. C. Jones, Jr.	
LOUISIANA:	Donald G. Bollinger	L. D. Young, Jr. C. C. Burleigh
MISSISSIPPI:	Hermes Gautier	Walter J. Gex, Jr. Louis Simmons
TEXAS:	Lawrence A. Kurtz	Howard D. Dodgen Jimmy Phillips
STAFF:	W. Dudley Gunn, Secty-Treas.	
PROXIES:	W. C. Holmes J. N. McConnell W. S. Werlla R. O. Bickerstaff Cecil Reid	(For Earl M. McGowin) (For L. D. Young, Jr.) (For C. C. Burleigh) (For Walter J. Gex, Jr.) (For Howard D. Dodgen)

COMMISSION COMMITTEE MEMBERS PRESENT

Legal: Mary Schulman, Reece O. Bickerstaff; Scientific: F.G.W. Smith, H. C. Loesch, A. E. Hopkins, Percy Viosca, Cecil Reid.

REPRESENTATIVES OF U. S. FISH & WILDLIFE SERVICE PRESENT

W. C. Herrington, L. A. Walford, A. W. Anderson, H. H. Eckles, P. A. Butler, Albert Collier, Stewart Springer, Billy Greer, W. W. Anderson.

REPRESENTATIVES OF STATES, STATE UNIVERSITIES, INDUSTRY AND OTHERS PRESENT:

R. L. Eddy, Don Benzie, James B. Higman, Gordon Gunter, J. G. Mackin, Nelson Marshall, Marvin Wass, J. E. Barr, W. P. Clark, James McPhillips, H. F. Sahlman, John Salvador, L. F. Scott, George E. Steele, Jr., Bert E. Thomas, Dick Vaughan, Manuel J. Versaggi, Emory King, Emmett Mattes, Al Vernon.

The Vice-Chairman of the Commission, Mr. Hermes Gautier, called the meeting to order at 9:45 AM. Mr. Gautier stated that Mr. Howard Dodgen, Commission Chairman, had called and expressed regret that he could not attend the meeting.

Next in order of business the Secretary called the roll of Commissioners. Letters of proxy were read and the gentlemen seated.

Following the introduction of all guests the meeting Chairman called upon Mr. Charlie Bevis, Supervisor, Florida Board of Conservation, who extended a cordial welcome to the State of Florida.

Mr. Gautier announced that all subjects appearing on the program would be treated informally with sufficient time being devoted to discussion periods. All conferees were invited to participate in the discussions.

The Chairman expressed the appreciation of the Commissioners to the seventeen State, Federal and University scientists who met October 14 to discuss shrimp research, and called upon Dr. L. A. Walford, Chief, Branch of Fishery Biology, U. S. Fish and Wildlife Service to present the results of the shrimp symposium.

Dr. Walford referred to the shrimp fishery as the fourth most important in the United States and probably the western hemisphere, to the distribution of the shrimps along a very long coastline, to their complex life history, the vast population of stocks and the several species making up the fishery. He said that each species fluctuated perhaps in some relation to each other. Unlike most fishes we study, Dr. Walford stated that the shrimp depends partly on the sea during its life cycle but more on the land. In carrying on a full scale shrimp investigation, he said the abundance would be measured and that fluctuations would be studied to determine what causes fluctuations so as to be able to predict above average, mean or subnormal supplies in the fishery. Reference was made to the shrimp investigations carried on by the U. S. Bureau of Fisheries from 1931-1940 and 1941-1942 at which time they were terminated due to the war. He described the investigations as being small and ones which were carried on without any special federal appropria-The results of these investigations are now being edited and according to Dr. Walford will probably be available in printed form in about two months.

The speaker then reviewed all that is known as well as what is not known about Gulf shrimps. He said information which is available is confined to the white shrimp and that additional research was needed to fill in the gaps.

Dr. Walford, presiding at panel discussion of the subject, was assisted by other scientists including Messrs. Collier, Higman, Loesch, Hopkins, Viosca, Reid, Anderson (W.W.), Marshall, Butler, Mackin, Springer, Eckles and Gunter. The lengthy discussion period which followed included a variety of pertinent questions and suggestions, such as count, salinities, distribution, nutrient salts, priority of studies, scholarships for scientific training of young men, and others. The draft of program prepared by the scientists at the October 14 meeting was changed in some respects.

Draft of program attached to these minutes contains a statement prepared by the scientists of what is and is not known about the Gulf shrimps, what information is desired and the approximate cost of obtaining such information during the first year of operation, less in succeeding years. Also attached is list of facilities on the Gulf which could be made available to such a Commission-sanctioned program. (Secretary's note: It was requested by the Commissioners on October 16 that the Fish and Wildlife Service draft a more detailed program, under the general items of investigation decided upon, and present the program at a later meeting. This later meeting will take place January 21-22, 1954, at a place on the Mississippi Coast to be designated later. Ways and means of financing such a program will be considered by the Commission at the mentioned January meeting.)

Mr. Gautier introduced a panel composed of representatives of the several states, Messrs. Smith (F.G.W.), Loesch, Hopkins, Eddy and Reid, each of whom reviewed marine fishery agency activities for their respective state during 1952-53.

ALABAMA: Mr. Loesch reported that Alabama had started a small research program on shrimp in Mobile Bay, setting up twelve bay and twelve shore stations from which to conduct observations. He stated the purpose of the program was to reevaluate present closed season regulations and to determine if certain areas should be set aside as nursery grounds. Condition of oyster reefs is also a subject of study, according to Mr. Loesch. Hydrographic conditions in Mobile Bay was said to have been studied for a time during the year. Because of the heavy run-off of fresh water in May, Mr. Loesch said many oysters were killed in shallow water but that many oyster predators were likewise killed, that prospects were not good for this year's production but that a heavy set the past summer lent encouragement for next year's crop.

MISSISSIPPI: Dr. Hopkins stated that the chemical, physical and biological survey of Mississippi water bottoms was continuing and that a good picture of the surface twelve inches of the bottom is being developed. In addition to being of assistance in selecting oyster growing areas, data developed by the survey is expected to provide a better understanding of shrimp and fin

fishes. Dr. Hopkins said that 25,000 barrels of shell were planted during the year in three areas which had been surveyed and that the young oysters resulting from the experimental planting were doing exceedingly well. Laboratory work was said to have been done during the summer to determine what food shrimp consume, this being a continuing project. It was also reported that two manuscripts had been prepared dealing with the marine fishes of Mississippi.

LOUISIANA: The organization of the Seafood Division of the Louisiana Fish and Wildlife Commission was completed in March of 1953, according to Mr. Eddy. The Division has three Sections, Research, Industrial Services and Exploratory Fishing and Gear Development. By June, he said, a research contract was completed with Tulane University and at present investigations are underway in Lake Pontchartrain. Mr. Eddy stated that a research vessel had been purchased by the Commission and that it would be used for field work, the laboratory work to be accomplished by the State Universities, Tulane and L.S.U. Library research was said to be one of the endeavors of the Section, same being designed to gather information available on the Louisiana fisheries as foundation for project development.

TEXAS: Speaking for Texas, Mr. Reid stated that the two year old studies of the habits of the speckled trout, redfish and drum were progressing nicely and that data from these research projects would be made available shortly, that the ecology of the oyster was being studied in a number of areas, that industrial pollution studies had been undertaken by a recently appointed staff scientist, and that equipment was now available for a study of shrimp migrations along the Texas Coast. He also said that a study of the dead shell resources of the State would begin in the near future with use of a modified fathometer which is expected to deliver a picture of fifteen feet or more below the bottom surface, and that the Commission would be furnished with all particulars regarding the work for distribution to the other States. Concerning television film to be prepared for showing over the Texas channels in furtherance of resource-use education, Mr. Reid stated that the marine fisheries would be featured and that some of the half-hour long sequences would be available in the near future. (Dissemination of information regarding the Texas TV programs will be effected thru the New Orleans Commission office.)

FLORIDA: Dr. Walton Smith reported that the Marine Laboratory had furnished technical advisors for the preparation by the University of Miami, thru grant from the Ford Foundation, twelve television shorts each of ten minute length. The shorts will be previewed at the Gulf and Caribbean Institute Meeting in November. Each short deals with marine products of interest to the Commission, shrimp being one of the fishery resources treated. Also of wide interest, Dr. Smith stated that the Laboratory is now conducting a pollution study in Biscayne Bay with emphasis on the effect of the general ecology of that large body of salt water. He said of general interest was work being

done for the Army Engineers on the effects of fresh water released from Lake Okeechobee on the ecology of the coastal areas, of a study of Red Tide from a hydrological standpoint, an intensive spot sampling of an area in West Florida to determine the drain on fisheries thru sports fishing effort, the long range study of the life histories of the pelagic fishes. He reported a fine spirit of cooperation by industry in the perfection of the Florida catch statistical program, good progress in the development of electronic fish-finding devices in cooperation with the Fish and Wildlife Service, and the completion of new structures by the Marine Laboratory to house salt water vat facilities for laboratory fish studies.

Coming up for first consideration at the afternoon session was report of activities by Mr. Springer of FWS Gulf Exploratory and Gear Development Section, Pascagoula. Mr. Springer reported that except for some fill-in explorations in the shrimp fishery the OREGON's time had been devoted chiefly during the year to the search for tuna employing pole and line gear and live bait. He said that it was necessary first to find a satisfactory live bait. It was found that live bait suitable for tuna fishing was well distributed and in sufficient quantities in most areas of the Gulf. A trap lift net developed at Pascagoula proved to be the most effective gear in the capture of the small bait fishes. It was added that Sardinella anchovia and a form of herring proved to be the best of those tested for chumming and keeping qualities in the live bait tanks.

Mr. Springer stated that they had not been very successful in capturing tuna during the year with hook and line fishing, adding that tuna in the Gulf is not attracted by the live bait. Similar experiences with tuna were said to have been observed by two tuna clippers which have operated in the Gulf and in the Caribbean. It was pointed out that in numerous instances tuna were attracted to the stern of the OREGON but all schools made a quick flurry, then disappeared. Mr. Springer is of the belief that a modified Japanese long line may be used successfully in the Gulf in depths of from 40 to 100 fathoms. Next attempts to capture tuna in commercial quantities will employ the use of such gear.

A new instrument known as the "Fischlupe" was tried experimentally by the OREGON during the year and was found satisfactory in locating snapper and other larger fishes. A modified Fischlupe known as the "Shrimplupe" will be tried out beginning about November 1.

Mr. Springer said that the red shrimp taken in 200-250 fathoms have been captured at the rate of one bushel per hour but that he did not think such average production to be of commercial interest at present.

Mr. Collier, reporting on Gulf Fishery Investigations, stated that the initial step in the program designed to obtain a more accurate appraisal of factors influencing yield of the marine fisheries of the Gulf and distinguishing between man-made and natural fluctuation in fisheries production, was completed in June, 1953. He said the survey had produced information on plankton organisms, fish eggs and fish larvae, the overall distribution of dissolved nutrients and information on currents beyond the continental shelf. He added that separation of plankton organisms, eggs and larvae is nearing completion and that quantitative interpretations have begun. Mr. Collier said no information had come forward which changes general findings reported last year. It was stated that the analysis of the many chemical data is in progress, also that climatic data are being gathered from various points around the Gulf. Speaking of the Red Tide investigations, he stated that laboratory cultures of the organism which is associated with the Tide had survived for the past month but whether or not the organism can be cultured in a strict sense of the word is not known at this time. A hydrological study of a bloom of Gymnodinium brevis strongly suggests that land drainage plays an important part in the initiation of such a bloom, according to Mr. Collier. He said evidence to date indicates that organic nutrients are more critical than the organic salts.

In summarizing activities of Gulf Oyster Investigations, Dr. Butler stated that three projects were completed during the year and that manuscripts discussing the data are in preparation. These projects included rate of set of oyster larvae, oyster sex change, growing of hard clams, Venus.

Dr. Butler stated the set in Pensacola Bay was very high during the year, exceeding by far 1951 and 52, that two non-commercial oysters had entered the Pensacola fishery in the past three years and this despite no apparent ecological change, that the past summer's set of the non-commercial species was as much as 90% in some areas of the bay, that the growing of the hard clam, Venus, in the Pensacola area for the past two years showed that while growth was approximately the same as in New England, predation by snails and crabs ruled out any commercial prospects for that area.

According to Dr. Butler, priority is now being given to studies of oyster drill activity and sensory perception. He hopes to develop a drill trap that will operate effectively and one that can be produced economically, such work now being underway.

The session was adjourned at 4:00 PM.

Friday, October 16, 1953

Mr. Gautier called the morning session to order at 9:30 AM.

Dr. Walford presented the second draft of the suggested shrimp research program which was referred to in the Secretary's note, page 3, paragraph 2 of these minutes.

Dr. Nelson Marshall spoke of the activities and objectives of the Committee on Marine Sciences of the Southern Regional Education Board. According to the speaker the Committee, which was formed in the summer of 1952, is composed of representatives from southern universities offering instruction in the marine sciences. He said the Committee had recently inventoried facilities of all such institutions as well as courses of study and had made the facilities compilation available to Dr. Walford and other scientists on the Commission's special committee to suggest needed shrimp research. Dr. Marshall extended the good wishes of the Board, an interstate compact such as Gulf marine fisheries compact, in all of its undertakings and gave assurance of the cooperation of the Marine Sciences Committee. Mr. Gautier expressed the deep appreciation of the Commission to Dr. Marshall for the fine cooperation which was evidenced by the number of the Committee in attendance at the shrimp symposium.

The development of unused or little used marine resources of the Gulf was the subject of a talk by Mr. A. W. Anderson of the Fish and Wildlife Service. He referred to the establishing of the trash fish industry as having progressed very well on the Gulf since the subject was brought up for consideration several years ago by the Commission. Mr. Anderson expects the trash fish for animal food industry to continue to expand and pointed to the number of boats already engaged in the industry as an example of sound fishery economics arising from diversification. Referring to the red shrimp found by the OREGON in wide distribution throughout the 200-250 fathom range in the North Gulf, Mr. Anderson said he believed that fishery would come into production but that with present methods of harvest and the apparent poundage rate per hour possible, it was a resource that probably would not be exploited for some time. Tuna was referred to as a good prospective resource, the development of which yet depends upon the finding of the proper fishing gear. Small size fishes found in search for tuna bait, according to the speaker, seem to appear in good enough volume to suggest the possibility of a sardine industry being established on the Gulf, however, he said a more intensive project of exploratory fishing was necessary to determine if large enough quantities were available to cause their exploitation to be of commercial interest and also, that technological research would be necessary to determine if the fishes possessed the required physical properties to be canned as sardines and receive proper consumer acceptance. Mr. Anderson named several species of fishes, the porgy, large croakers, whiting, deep water flounders, and others which have promise of entering more importantly into the commercial catch.

In conclusion, Mr. Anderson stated that technologists of his department were now endeavoring to develop a method for the drying of fish solubles so that the product would be rendered impervious to moisture. He said this was important to the menhaden industry because it would greatly increase the call for this by-product particularly by the poultry food manufacturers. Menhaden meal prices were fairly firm, he said, but the demand for menhaden oil had diminished and resulting revenues from sales were down. Effort is also being made to prepare a flour from menhaden which will not contain the odor of fish.

Mr. Bollinger, Chairman of the Commission's Bottom Debris Committee which was appointed at the April, 1952 Mobile meeting to look into the extent of damage to trawls and resulting loss of time on the fishing (shrimping) grounds caused by contact with other than natural obstructions, said that the Committee had met the day previous and that it appeared States other than Louisiana were not experiencing subject difficulties. He said that the Louisiana Fish and Wildlife Commission had taken steps to correct conditions and asked that Mr. McConnell review accomplishments. Mr. McConnell stated that the Louisiana Commission had called two meetings with both fishing and oil industry interests participating. He said it appeared that the principal items doing damage to trawls, and sometimes boats, were pipes and 2 x 2's left by crews engaged in oil explorations.

Mr. McConnell stated the following to be results of the second meeting:

- 1 By November 5, 1953 all parties using pipe must have clearly stamped at the end of each joint the name or abbreviation of the name of the company using the pipe so that there can be no question as to who is responsible when the damage occurs.
- 2 All 2 x 2's used for survey lines must be clearly stamped with the name of the company using the stakes at approximately three (3) foot intervals and that such 2 x 2's must be pulled before the completion of the prospect.
- 3 That any company using pipe must pull such pipe before leaving the shot point.
- 4 That the U. S. Engineers would change their permit regulation to the effect that instead of the present ten (10) shot point locations only six (6) would be allowed in the future ahead of the shooting boat and these shots must be clearly marked both by day and night in accordance with regulations set up by the U. S. Engineers.
- 5 That when crews leave the field on their time off they must not leave any pipe in the waters.
- 6 It was agreed that the Department (Seafood Department La. Wildlife and Fisherics Commission) agents would assist the U. S. Engineers in seeing that all pipe were pulled, however, the responsibility would still rest with the various companies as to the pipe removal.

Mr. McConnell also stated that effort would be made to locate old pipe and that these potential hazards would be removed by the geophysical or oil companies shown to have operated in the immediate area of the find.

Mr. Bollinger, as well as Mr. McConnell, highly praised the geophysical and oil companies for the fine spirit of cooperation in evidence at the New Orleans meetings, and the former stated that because of the excellent progress being made the Committee had no recommendations to make at this time.

(Secretary's note: A synopsis of the above mentioned meetings will be furnished the Commissioners and Legal Committee when supplied by Mr. McConnell.)

"Use of Television in Conservation Education" was not presented as scheduled because of the absence of that paper's author, Mr. Howard Dodgen.

Mr. Bevis, speaking in Miss Schulman's stead, briefly summarized action of the 1953 Florida Legislature in writing a new salt water fishery code. He said Florida had suffered for many years from too many marine fishery laws, there being about 420 local laws compared with 50 to 75 general laws. Mr. Bevis exhibited copies of both the old and new binders to illustrate the degree to which the number of laws had been reduced. He referred to the new code as already proving of great value in enforcement because of its adaptability to work in the field thru manuals which have been provided the conservation agents.

The Friday morning session was adjourned at 11:45 AM.

GULF STATES MARINE FISHERIES COMMISSION 312 Audubon Building New Orleans 16, Louisiana

MINUTES

EXECUTIVE SESSION, TAMPA, FLORIDA (OCTOBER 16, 1953.)

Mr. W. C. Herrington spoke to the Commissioners in executive session on two subjects. One subject was classified as confidential and was not recorded for these minutes. The presentation of this subject resulted in the adoption of a resolution by the Commission. The second subject presented by Mr. Herrington and discussed by the Commission concerned recommendations made by the International Law Commission of the United Nations General Assembly with respect to proposed international action on fisheries. Mr. Gautier asked Miss Mary Schulman of the Legal Committee to attend the October conference of fishing interests at the State Department, Washington, as a representative of this Commission, where an effort will be made to develop further the United States! position on these matters. Miss Schulman will present the results of the conference at the next Commission meeting.

The Commission had no recommendations to make to the Fish and Wildlife Service regarding its Gulf programs of exploratory fishing, fishery research, of shellfish investigations or other Service activities, or to the States or the Congress.

The Secretary reported on follow-up of Resolution adopted at the 3rd annual meeting relative to H.R. 6862-Kennedy and addressed to the State Delegations (Gulf) in Congress:

H.R. 6862-Kennedy, \$3,000,000 from Secretary of Agriculture to Secretary of Interior (Monies from duties collected on imported fishery products) to be spent:

\$2,000,000 surplus fish.
750,000 education, technology and related research.
250,000 fishery sales promotion.

A similar bill, H.R. 7304 dated 3/30/53 introduced.

S-1731-Saltonstall dated 4/22/53 and H.R. 5829 Bates dated 6/18/53, these worded alike with monies from same source but differ from Kennedy Bill as follows:

\$ 750,000 fishery educational service, technology and related research.
250,000 fishery sales promotion.

The Saltonstall and Bates bills in line with Commission's Resolution, \$2,000,000 for purchase of surplus fish having been eliminated. This subject is likely to be presented to the next Congress. Replies received to personal letters sent with the Resolution to Congressional Delegates assure attention when bill is presented.

The Secretary next reported on the Federal Aid in Fish Restoration Act (P.L. 681-81st Congress, Chapter 658-2d Session:)

The purpose of the restoration program is to help the States solve their sport-fishery problems. Investigations, land purchases, developments, coordination and maintenance are classified as acceptable projects.

The program is generally referred to as Dingell-Johnson. The fund which makes the program possible is likewise referred to by the names of the authors of House Bill 6533.

The source of revenue is a 10% excise tax on fishing rods, creels, reels, and artificial lures, baits and flies. Such revenue is collected by the U. S. Treasurer from the manufacturer. Monies collected in one fiscal year are authorized to be appropriated for the succeeding fiscal year.

The Secretary of the Interior is authorized to deduct not to exceed 8% of each annual appropriation for certain expenses incidental to administering the Act. Also, prior to apportionments to the States the Secretary is authorized to pay in the aggregate not to exceed \$110,000.00 for approved projects in the Territories.

The residue is apportioned among the States as follows: 40% in the ratio which the area of each State bears to the total area of all the States, areas of coastal and Great Lakes waters included, and 60% in the ratio which the number of persons holding paid licenses to fish for sport or recreation in the State bears to the number of such persons in all the States.

The apportionments are adjusted equitably so that no State shall receive less than 1% nor more than 5% of the total amount apportioned to all the States.

If any State apportionment is less than \$4,500.00 the Secretary may allocate not to exceed this amount provided that State matches the amount with \$1,500.00 of its own money.

The project cost is shared 75% by the United States and 25% by the State. The State advances monies on projects and is reimbursed for such expenditures.

During the fiscal year 1953-54 the following amounts in D-J funds will be made available to the Gulf States as indicated:

State	Amount	State Agency
Alabama Florida Louisiana	\$ 52,945.00 74,495.00 42,999.00	Department of Conservation Game & Fresh Water Fish Commission Wildlife & Fisheries Commission
Mississippi Texas	48,193.00 191,741.00	Game & Fish Commission Game & Fish Commission
	\$ 410,373.00	

The States of Alabama, Florida, Mississippi and Texas do not require a salt water sports fishing license. Louisiana does require such a license but it is not exclusive. The \$1.00 per year Louisiana license allows sports fishing in both salt and fresh waters.

It is understood that since Alabama, Louisiana and Texas have the fresh and salt water fisheries under one department they can use D-J funds for either of the classes of fisheries. Since the Florida and Mississippi fisheries are under separate departments, the funds go to the fresh water fisheries department because they require an angler's license.

Report 1953-54 Interior Department Appropriations: At Mobile, April 17, Commission learned from FWS representatives consequence of passage by the Congress of H.R. 4828. This bill proposed budget of approximately \$3,000,000.00 instead of requested 4.2 millions appropriation for year.

Bill passed the House April 28 and was referred to Senate Sub-Committee on Interior Appropriations.

State Directors on Commission were informed of matter and letter to their state delegations at Washington requested. Mr. Dodgen wrote Mr. Cordon, Committee Chairman, in name of the Commission.

The Senate passed the Interior Bill June 26 as amended. The bill as passed provided \$4,000,000.00 for Investigation of Resources, which includes commercial fisheries, fishery biology and wildlife research plus an extra \$200,000.00 earmarked for sea lamprey research in the Great Lakes.

The Commissioners were advised of this action on the part of Congress on August 4. On August 10 Mr. John L. Farley, Director, FWS, wrote to the Commission as follows:

"Because of the active interest you have taken in the research activities of the Service, I think you will be happy to know that the appropriation bill as finally enacted before Congress adjourned provides very substantial funds for research during this fiscal year.

"With the relatively small reductions for these activities, the Service will be in a good position to meet its obligations to the international commissions and to the Atlantic and Gulf States marine fishery commissions.

"We very much appreciate your continuing support, assistance, and advice in the fishery research and development programs of the Service."

It was moved by Colonel Kurtz, seconded by Mr. Bickerstaff and passed by vote that the following scientists be requested to serve on a special Commission shrimp research committee:

Dr. L. A. Walford, (Chairman) Fish & Wildlife Service,

Washington, D. C.

Mr. Howard Eckles, Fish & Wildlife Service,

Washington, D. C.

Mr. Albert Collier Fish & Wildlife Service,

Galveston, Tex.

Mr. Stewart Springer Fish & Wildlife Service

Pascagoula, Miss.

Dr. Philip Butler Fish & Wildlife Service,

Pensacola, Florida

Dr. C. P. Idyll The Marine Laboratory University of Miami,

Coral Gables, Fla.

Dr. Harold Humm
Dept. of Oceanography
Florida State University,

Tallahassee, Fla.

Dr. Nelson Marshall Southern Regional Education Board, Committee on Marine Sciences,

Tallahassee, Fla.

Mr. Harold Loesch Marine Laboratory Alabama Dept. of Conservation,

Bayou LaBatre, Ala.

Dr. A. E. Hopkins Gulf Coast Research Laboratory,

Ocean Springs, Miss.

Mr. Percy Viosca La. Wildlife & Fisheries Commission

New Orleans, La.

Mr. Cecil Reid Texas Game & Fish Commission,

Rockport, Tex.

Dr. Gordon Gunter Institute of Marine Science University of Texas,

Port Aransas, Tex.

Dr. Dale Leipper Dept. of Oceanography Texas A & M College,

College Station, Tex.

Dr. J. G. Mackin Dept. of Oceanography Texas A & M College,

College Station, Tex.

It was moved by Colonel Kurtz, seconded by Mr. McConnell and passed by vote that a special Commission meeting be held on the Mississippi Coast January 21-22, 1954, to further consider the matter of initiating a long range overall shrimp research program. (Secretary's note: Preference was stated for meeting to be at the Edgewater Hotel, Edgewater Beach, Mississippi. The Edgewater confirmed room and meeting space October 23. Meeting therefore will be at the Edgewater.)

The matter of holding the spring Commission meeting for two days each year starting the third Thursday in March instead of April was discussed. Mr. McConnell moved, Mr. Hendry seconded, and on vote the motion for changing the spring meeting to March carried. Also included in the motion was for the March meeting to be in New Orleans, if possible at the Jung Hotel. (Secretary's note: The Jung management has booked this meeting for March 18-19, 1954.)

Mr. Bickerstaff moved that the minutes of last meeting (Mobile, Alabama, April 17, 1953) be passed without reading. The motion passed on vote following a second by Dr. Holmes.

The 1952-53 certified public accountants audit of the Commission accounts was accepted by Commission upon vote following motion by Mr. Bollinger and second by Mr. Hendry.

Study of a comparative analysis of expenses was made, same being attached to these minutes. The forecast of expenses appearing in the attached analysis was approved as the 1953-54 budget with the understanding that the position of Commission office secretary be increased by \$25.00 per month effective November 1, 1953. Mr. Bickerstaff moved approval, Colonel Kurtz seconded.

It was moved by Mr. Bollinger, seconded by Mr. Bickerstaff, and approved by vote that the Secretary prepare a Resolution in recognition of the valued services of Mr. Howard Dodgen, Commission retiring Chairman. The Resolution is attached to these minutes.

Next in the order of business came the election of a Chairman and Vice-Chairman for the ensuing year.

Mr. McConnell nominated Mr. Hermes Gautier for Commission Chairman. Colonel Kurtz seconded the nomination. Mr. Bickerstaff moved that nominations be closed and that the Secretary cast one vote for the entire Commission, Mr. Hendry seconded. Upon vote, Mr. Gautier became the Commission's third Chairman.

Mr. Werlla nominated Mr. William Hendry for Commission Vice-Chairman. Mr. Bollinger seconded the nomination and added that nominations be closed. As in the case of the Chairman, Mr. Hendry was unanimously elected Commission Vice-Chairman.

Messrs. Gautier and Hendry expressed their appreciation to the group and promised their fullest cooperation.

The Chairman stated that the standing legal and scientific committees would be named at a later date.

With no further business to come before the Commission's fourth annual meeting, Mr. Gautier called for a motion to adjourn.

The meeting was adjourned at 12:30 PM.

Respectfully submitted,

W. Dudley Gunn

Secretary-Treasurer

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CHET T	DEPOTED	STATISTICS
OUTH	DULING INCE	OTATIOTICO

	STATE (Fiscal Year)	CUBIC YARDS	UNIT PRICE	TOTAL REVENUE
	1947-1948			
	Alabama Florida	982,113.00	5 & 7 1	\$ 49,105.74
	Louisiana Mississippi	2,525,175.41	4 & 5	105,936.84
	Texas	6,227,922.00	5	349,028.00
	1948-1949			
	Alabama Florida	1,094,978.00 117,023.3	5 & 7 ½ 10	55,004.12 11,702.33
	Louisiana Mississippi	2,177,697.58	4 & 5	105,108.73
	Texas	7,193,274.00	7	503,624.00
	1949-1950			
	Alabama	1,320,847.00 266,610.9	5 & 7½ 10	70,154.29
	Florida Louisiana	2,587,588.05	4 & 5	26,661.09 114,427.31
	Mississippi Texas	7,526,739.00	7	525,242.00
	7040 7047			
	1950-1951		_	
	Alabama Florida	1,505,036.00 396,527.1	5,7½ & 10 10	96,938.21 39,652.71
	Louisiana Mississippi	4,370,453.77	4,5 & 7½	134,454.23
	Texas	8,461,659.00	7	592,316.00
	1951-1952		•	
	Alabama Florida	2,052,322.00 261,684.4	10 10	205,232.22 26,168.44
	Louisiana Mississippi (1 Mo.)	3,967,557.34 50,000.00	4,5 & 7½	156,793.86 5,000.00
,	Texas	9,172,365.00	7	642,065.52
	1952-1953			
	Alabama (ll Mos.) Florida	2,029,642.00 444,913.8	10 10	202,964.40 44,491.38
	Iouisiana Mississippi	2,398,043.86 315,906.00	4,5 & 7½ 10	224,974.41 31,591.00
	Texas (11 Mos.)	9,130,219.00	7	639,164.57

Florida - 1947 figures not available. Mississippi - no production prior 1951-52 fiscal.

GSMFC (M-16)

COMPARATIVE ANALYSIS OF EXPENSES

	Budget 1952-53	Actual Expenses	Forecast 1953-54
Salaries	\$ 9,800.00	\$ 9,778.25	\$ 10,000.00
Rent, office	1,080.00	1,080.00	1,080.00
Bond & Insurance Premiums	238.00	235.42	236.00
Accounting Fees	175.00	175.00	175.00
Telephone & Telegraph	380.00	479.42	450.00
Electricity	56.00	60.87	60.00
Travel-Personal & Auto	1,500.00	1,332,93	1,350,00
Postage	65.00	89.79	90.00
Stationery, Printing & Office Supplies	540.00	431,18	430-00
Furniture, Fixtures & Maintenance	100,00		50.00
Subscriptions	10.00		•
Reserved for Depreciation	500.00	496.96	497.00
Miscellaneous		29.36	25.00
	\$14,444,00	\$14,189.18	\$14,443.00

A RESOLUTION

WHEREAS it has been brought to the attention of the Gulf States Marine Fisheries Commission in meeting assembled this day at Tampa, Florida, that Honorable Howard D. Dodgen has expressed a desire that his name not be placed in nomination for an additional term of office as Chairman of this Commission; and,

WHEREAS, and while, this decision on the part of our colleague is deeply regretted it is understood that his distinguished position as Executive Secretary of the Game and Fish Commission of the State of Texas is requiring more and more of his time and effort; and,

WHEREAS, this Commission is fully cognizant of the unselfish devotion so clearly manifested by our good friend Howard in all of his undertakings, which have made such a valuable contribution to natural resources conservation in his and other of the States, and since the office as Chairman of this body is requiring an increasing contribution of time by such officer; now therefore be it

RESOLVED that the Commission though with reluctance assents to the expressed wish of our Chairman; and

BE IT FURTHER RESOLVED that this Commission is fully aware and appreciative of the fine contribution Howard Dodgen has made toward the success of the compact, as its first Vice-Chairman and its Chairman since May of 1951, and that the most sincere good wishes of this body attend his every future endeavor.

* * * * * * * *

The foregoing Resolution was adopted by the Gulf States Marine Fisheries Commission, October 16, 1953, at a regular Commission meeting held at the Hotel Tampa Terrace in the City of Tampa, Florida.

W. Dudley Gunn Secretary-Treasurer

GULF STATES MARINE FISHERIES COMMISSION HOTEL TAMPA TERRACE TAMPA, FLORIDA October 14, 1953

MEETING OF GULF STATES AND FEDERAL MARINE SCIENTISTS TO CONSIDER GULF SHRIMP RESOURCES

10:00 AM Call to Order and Opening Remarks, Dudley Gunn.

Present Status of the Shrimp Resources in the Gulf of Mexico, Gordon Gunter.

Review of Results of Research Conducted by the U. S. Fish and Wildlife Service, L. A. Walford.

Panel Discussion on the following questions, L. A. Walford, Presiding, Panel: J. B. Higman, H. C. Loesch, A. E. Hopkins, Percy Viosca, Cecil Reid.

What do we now know about Gulf shrimps?

What do we not know about Gulf shrimps?

What kind of research is needed to fill in the gaps?

How shall such research be organized?

GULF STATES MARINE FISHERIES COMMISSION

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WALL BY

SUMMARY OF KNOWLEDGE AND IGNORANCE ABOUT THE WHITE SHRIMP, PENAEUS SETIFERUS

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The characteristics (i.e., size composition, state of maturity and sex ratio) of the commercial catch, both in the in-shore and off-shore Texas Fisheries from 1931 to 1936, and in the Louisiana off-shore Fisheries for 1940 to 1942. VANIA MIN

WE KNOW

That sinual crops of shrimp fluctuate in spundance. The distribution, size composition and state of maturity of Shrimp along the whole Louisiana coast, in the bayous, the bays, and the inside waters, as determined by fishing with commercial gear from a research vessel during 1931

WE KNOW

When Shrimp spawn, and how many eggs they produce at one batch with a str by drographic factors (such as the inshore drift, for example) and partly by miknown conditions in the inside areas. WE THINK They spawn more than once, probably in waves with two dominant waves, one coming in the Spring, the other in the Fall. WE DO NOT KNOW

What combination of factors determine the survival of year broods.

WE KNOW

They spawn in outside waters.

IVILIE IN

That cortain factors are changing the environment of surian, but we don't know has they favor or disfavor the short on Mor examples They move into the inside waters of low salinity at dazvery small size.

has need the control of the and to the month of the state of the fillion and new WE BELIEVE Various with

That in order to survive, the young shrimp must reach the inside waters.

WE KNOW his subjection 001 stoods daily animally of control to east divorg off That as the young grow in the inside waters, they gradually move toward waters of higher salinity and finally into the open sea.

The life upon of alries is sentating over a year. A few life to made will off That in the open sea West of the Mississippi, the shrimp moves about at random, in and out along the coast, sometimes traveling as far as 100-miles. East of the Mississippi, they move in the direction of the Delta.

Inc. suctory of the early stages of the life history of the shying WE BELIEVE

The outflow from the Mississippi River marks a line of division across which shrimp do not migrate. The sale will call to the order was well offert meet into actobing shring.

WE KNOW

That in Texas, young shrimp move from inside to outside, just as they do in other places.

WE THINK

That large shrimp move southward in fall and early winter along the South Texas and North Mexican coasts.

WE KNOW

That some large shrimp are present along the northern coast of Mexico during the early spring. Later in the spring, they move northward along the southern Texas coast, going as far as Port Aransas.

WE KNOW

That annual crops of shrimp fluctuate in abundance.

WE THINK

There is no corelation between the number of spawners and the size of broods within the range of abundance over which we have had experience.

WE THINK

The survival of broods is determined partly by climate, partly by offshore hydrographic factors (such as the inshore drift, for example) and partly by unknown conditions in the inside areas.

WE DO NOT KNOW

What combination of factors determine the survival of year broods.

WE KNOW

That certain factors are changing the environment of shrimp, but we don't know how they favor or disfavor the shrimp. For example:

The climate has been warming for several decades in the Gulf of Mexico. Man has modified the environment of the shrimp in inside waters in various ways.

WE KNOW

The growth rate of shrimp beginning with about 100 millimeters in length. We have good estimates of growth rates below 100 millimeters.

WE BELIEVE

The life span of shrimp is something over a year. A few live as long as two years, perhaps even longer.

WE KNOW

The anatomy of the early stages of the life history of the shrimp.

WE DO NOT KNOW

How many shrimp are caught, specifically where they are caught, or how much effort goes into catching shrimp.

WE DO NOT KNOW

The size of the shrimo stocks in the Gulf of Mexico.

WE DO NOT KNOW

The effect of fishing on the stocks. Perhaps the species composition of shrimp has changed in recent year, but we do not know the extent, or nature of such changes if they have occurred. It appears that in some areas, brown shrimp may have increased, and white shrimp have decreased. There is some evidence that different species of shrimp do not intermingle. We do not know whether and how they react upon each other.

WE DO NOT KNOW

The average mortality rates of shrimp.

WE DO NOT KNOW effect on the stock of predation or the nature, competition and disease.

WE KNOW

messer into extract rate and been report our accordance contains A number of things about the natural history of the white shrimp but there are many gaps in our knowledge. The area of our ignorance is larger than that of our knowledge. For example, we don't know exactly what shrimp eat, or what nourishes them, what stimulates them to moult, to migrate horizontally and vertically, to congregate or disperse, etc.

WE DO NOT KNOW

The distribut on of spawning grounds, or he relation of their location to the entrances into the inside waters; nor down the mechanism that carries the larvae into the inside waters.

GULF STATES MARINE FISHERIES

ESTIMATED COSTS OF GULF-WIDE SHRIMP RESEARCH FOR FIRST YEAR

October 15, 1953

Sampling Catch	\$ 50,000
Life history of species other than P. Setiferus	164,000
Study of transport of larval shrimps to inside waters	60,000
Tagging Program	115,000
Raise and cultivate shrimps under experimental conditions	25,000
Ecology of shrimp in typical bay area	25,000
Maintain history of changes in inside waters	n Ar was arm o
Collection of catch statistics	80,000
Studies on differentiation of stocks	12,000
Coordinating offices and publications	54,000
TOTAL	595,000

The second second and not understance of the configuration of the config	GUNELUE LEER VO
A Committee of State, Federal and University Scientis	ts has
considered what is known and what is not known about shrim	ps, and
has come to the conclusion that the following studies are	
to fill in the gaps in our knowledge:	

the second of th		
Study the life history of the species of shrimps other than white shrimp that enter importantly into the catch	Lioti enlared be a	
Sample the commercial catch representatively for	size 50,000.00	
Determine mechanisms carry or lead the young into the inside waters, and learn how variations in en- vironment relate to size of brood	60,000.00	
Tag throughout the range of the species to clarify our knowledge about migrations, to identify stock to estimate size of populations and to estimate mortality rates	laride State Hilve. Last willes of Los	3.04%
Cultivate shrimp under controlled laboratory conditions and carry on experiments to determine how various factors affect them	trance admit which is a factor of the control of th	
Study the ecology of a sample inside area with particular attention to shrimps	25,000.00	
Maintain a history of the conditions of the in-		[[] J. spi
Establish useful and adequate statistics on the catch and location of catches and fishing effort.		No.
Differentiate the stocks	PARTICULA A MENS	

The following is a list of State, Federal and private agencies with facilities in the Gulf of Mexico which could possibly be utilized in a Cooperative Gulf Shrimp Research program.

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LOUISIANA

Louisiana State University has a small laboratory at Grand Isle. No resident staff. Facilities very limited except for modest living quarters.

Louisiana Department of Wildlife and Fisheries will appropriate \$50,000.00 per year for fishery studies to be carried out by contract with Universities. These will be general problems. The present Tulane studies on Lake Ponchatrain are in this program.

MISSISSIPPI

Gulf Coast Research Laboratory at Ocean Springs. Very good laboratory and housing facilities. Expect to have small boat suitable for inshore work.

ALABAMA

Conducts a small (one-man) program on Mobile Bay. Can coordinate this with comprehensive shrimp studies in the Gulf.

FLORIDA

Florida State University operates a field station at Alligator Harbor. Can provide residential quarters and very suitable laboratory facilities.

Florida State Board of Conservation conducts research through the University of Miami Marine Laboratory. They do not have laboratory or field facilities operating on the Gulf but does extend field activities into that area.

TEXAS

Research Foundation of Texas Agriculture and Mines College has small laboratory at Grand Isle. Very good laboratory facilities.

Modest floating equipment.

Texas University - Port Aransas, has a laboratory and a small boat but no staff available directly for shrimp research.

Texas A & M College has laboratory facilities available.

Texas Game and Fish Commission, Rockport, has laboratory facilities - two boats, one 59 feet and one 40 feet, both available for part time use. Possibly one biologist can be assigned to shrimp research.

Facilities of the U.S. Government located on the Gulf Coast which can be called upon for shrimp research or aid in related problems.

U. S. FISH AND WILDLIFE SERVICE

Gulf Fishery Investigations, Galveston, Texas, has biological and chemical laboratory facilities; a scientific staff of seven, and the vessel Alaska which is now inoperative.

Gulf Fisheries Exploration and Gear R_e search, Pascagaula, Mississippi. Three fishery scientists and technicians.

Vessel Oregon converted for exploratory fishing. Shore facilities are also available.

U. S. Fish and Wildlife Service, Shell Fishery Laboratory, Pensacola, Florida, has biological and chemical laboratory facilities.

The following other governmental agencies could be called upon for limited assistance:

Weather Bureau
Public Health Service
Food & Drug Administration
Coast Guard
Coast and Geodetic Survey
U. S. Army Chemical Corps
U. S. Army Engineers

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MOBILE, ALABAMA, ADMIRAL SEMMESHOTEL
APRIL 17, 1953 - MEETING M-15

GULF STATES MARINE FISHERIES COMMISSION

Mobile, Alabama Admiral Semmes Hotel April 17, 1953

PROGRAM

(Mr. Howard D. Dodgen, Commission Chairman, Presiding.)

9:30 AM Call to Order.
Roll Call of Commissioners and Introductions.
Welcome to Alabama (Mr. Johnston)

9:45 AM GULF INVESTIGATIONS: Fertility of Continental Shelf and its bearing on the shrimp and fin fish resources.

Laboratory study of live species of fishes as possible effective and economical approach to improving fishery management practices. Summer and fall work plan.

(Mr. Collier)

10:05 AM GULF EXPLORATIONS: Value to explorations of knowledge of chemical constituency of sea water in various areas.

Continued explorations for shrimp. Season's program for further search for tuna. Cooperative work of OREGON and ALASKA in Yucatan during the summer. (Mr. Springer)

10:30 AM OULF OTSTER INVESTIGATIONS: Pensacola Laboratory program on oyster predators. (Dr. Butler)

PANEL REPORTS AND DISCUSSIONS:

10:45 AM Oyster Fishery. (Panel announced at meeting)

11:15 AM Blue Crab Fishery. (Panel announced at meeting)

11:30 AM COMMISSION WORK PLAN. (Nessrs. Dodgen and Gunn)

12:01 PM OTHER SUBJECTS.

12:30 ADJOURNMENT.

* * * * * * * *

1:30 EXECUTIVE SESSION

GULF STATES MARINE FISHERIES COMMISSION 312 Audubon Building New Orleans 16, Louisiana

MINUTES (Extract of Transcript)

REGULAR MEETING, APRIL 17, 1953 ADMIRAL SEMMES HOTEL, MOBILE, ALABAMA

OFFICIAL ATTENDANCE OF COMMISSIONERS:

PRESENT ABSENT

Thomas A. Johnston, III Earl M. McGowin

ALABAMA: Thomas A. Jol W. C. Holmes

FLORIDA: William J. Hendry Charlie Bevis

L. D. Young, Jr. C. C. Burleigh

D. G. Bollinger

MISSISSIPPI: Hermes Gautier Walter J. Gex, Jr. Louis Simmons

TEXAS:

Howard D. Dodgen

Jimmy Phillips

Lawrence A. Kurtz

STAFF: W. Dudley Gunn, Secretary-Treasurer

PROXIES: F. G. Walton Smith (For Charlie Bevis)
Cecil Reid (For H. D. Dodgen)

COMMISSION COMMITTEE MEMBERS PRESENT

Reece O. Bickerstaff, A. E. Hopkins, H. C. Loesch, H. E. Schafer, Jr.

REPRESENTATIVES OF GOVERNMENTAL AGENCIES PRESENT

L. A. Walford, P. A. Butler, Albert Collier, R. T. Whiteleather, Stewart Springer, D. L. Hoy.

REPRESENTATIVES OF INDUSTRY AND OTHERS PRESENT

George Austin, Harry O. Austin, J. Blanchard, A. J. Buquet, J. A. Butler, W. P. Clark, Cecil Drake, R. L. Eddy, V. A. Gonzales, R. M. Ingle, Sidney Landry, J. N. McConnell, James McPhillips, J. S. Ramos, John Rockwell, Bert E. Thomas, Dick Vaughan, Percy Viosca, D. H. Wallace, L. L. Walters, W. S. Werlla and others.

GENERAL SESSION, APRIL 17, 1953

The Vice-Chairman, Mr. Hermes Gautier, called the meeting to order at 9:45 AM and introduced Mr. Thos. A. Johnston who extended a cordial welcome to the Commissioners and their guests.

Mr. Gautier announced that all subjects appearing on the program would be treated informally with sufficient time being devoted to discussion periods. All conferes were invited to participate in the discussions.

Mr. Albert Collier reported that FWS Gulf Investigations expected in the future to concentrate their efforts in the accumulating of essential basic data in the continental shelf area off the United States, such data to include a more concentrated study of fish eggs, larvae and plankton organisms and the distribution of same. It was explained by Mr. Collier that a more intensified investigation into the distribution both by area and depth of organic phosphates, nitrates, carbohydrates and amino acids was considered necessary. The speaker presented charts and graphs which indicated areas in which varying concentrations of the nutrient salts had to the present time been located, such areas generally being seaward from principal rivers. Graphs were produced which compared the abundance of eggs, larvae and plankton with the presence of nutrients. The speaker stated that in mid-summer the ALASKA would join the OREGON for work in the Yucatan channel, the former to study the characteristics of the sea water while the OREGON explored for fishes in the immediate area. In discussion following Mr. Collier's presentation it seemed to be the general feeling that further investigation of the continental shelf should lead to the developing of information needed with regard to the behavior, growth and survival of the fishes which populate the so-called offshore areas.

Mr. Springer reporting on the work of the FWS Exploratory Section, Pascagoula, said that the OREGON left for cruise #19 April 9, 1953, with the live bait tank installed and the vessel completely geared for exploratory tuna fishing. It was understood this cruise will not terminate until June 25 during which time live bait fishing will be done for blackfin and yellowfin tuna and for white skipjack in the approaches to the Gulf, the Yucatan channel proper, the Florida straits and the northeastern Caribbean. Mr. Springer said the OREGON would also make exploratory drags for shrimp with a 40' trawl and would snapper fish in deep water with electric reels and wire lines.

According to the speaker a successful attempt was made to correlate the work of the ALASKA with reference to concentration of nutrient salts as indicated in the area off Cape San Blas, Florida. Mr. Springer said that because of the fertility of the area mentioned it appears to be one in which there is a concentration of breeding stock. It was pointed out that the fish school heavily but are fewer in numbers. That the species Spot was found to run 3 to the pound as compared with the general run of 5 to the pound. Shrimp found in the area also ran larger than is generally the case. The Commission was told that a to-date report on the OREGON's shrimp findings would be available in the fall of 1953.

During the discussion period it was mentioned that bonita are sometimes confused with the blackfin tuna principally because so few of the latter have appeared in the commercial catches of the Gulf:

That tuna which have been observed by the OREGON in the Gulf run uniform in size.

That often times blackfin tuna and yellowfin tuna appear in the same area which makes it very difficult to select suitable trolling gear, the former having a tendency to tear up gear and rig while the latter tear their jaws out.

That the white skipjack range is well offshore.

That the OREGON had never located schools of tuna inside the continental shelf but it has been established that migrations extend close to shore as in the case of blackfins being taken in March in beach seines off Destin.

That the OREGON expects to try the cigarfish, described as a kind of jack, as tuna bait.

That this bait fish is abundant in the offshore area extending from the neighborhood of Mobile Bay to Cape San Blas.

That this same fish, which is about $6^{\rm H}$ long, has been used for sometime in its frozen state as snapper bait.

That the Cuban tuna fishery of the Gulf of Batabano use a herring 1" to 2" long which occur in Cuban waters and that this species also ranges along the south Florida beaches.

That sufficient information is not available to establish a migratory pattern of any of the species of tuna.

That blackfin have been found in the north Gulf in the widely separated months of March and November.

That post-larval blackfin tuna have been found in the stomachs of other blackfin tuna in the Yucatan and in the Caribbean off the coast of Cuba and west of the Isle of Pines.

That small boats with a complement of two to three men catch between 15% and 20% of the tuna landed off California.

That if tuna are found in commercially-profitable quantities in the Gulf an opportunity for the small fisherman to establish a good supplementary income would be available.

That the so-called California albacore boats tuna fish principally by dragging lines from out-riggers and off the stern of the boat.

That if a tuna fishery were developed in the Gulf shrimp boats could enter the fishery during off-season or while enroute to and from the shrimp fishing grounds.

That a small boat could be outfitted with a live bait tank for an investment of only a few hundred dollars.

That it had been observed firms engaged in the canning of shrimp could add tuna to their line without a great deal of additional cost, and that considerably more table space would be required for the handling of tuna than is available in the plants at present.

That one bushel of red shrimp per hour is the most which has been taken from best concentrations to-date. That this production of red shrimp, occurring in the 200-250 fathom range, is not sufficient to be considered of commercial interest.

That a law which would place commercial fishing vessels of comparatively low tonnage under full U.S. Coast Guard inspection and licensing regulations, such as was proposed in the Nicholson Bill introduced at the last session of Congress but on which no hearings were held and which has not been reintroduced in the current session, would work a hardship on the operators of two and three man fishing craft.

Dr. Butler stated that the program of investigation into the oyster predators would be intensified in the future. It was pointed out that too little is known at present to suggest means of controlling these menacing forms. At present it appears that the drill is the most destructive of the predators, although it was said that the blue and stone crabs are responsible for some toll, the degree of which is unknown. The boring sponge and boring clam were also given credit for some destruction but according to present knowledge their inroads appear to be in the lowering of the quality of the oyster. Particular attention will be directed to studying the worm, leech,

mud crab, small drills and others that cause damage especially during the first few days following the setting of the oyster.

During the discussion period it was brought out that the oyster reefs of the Gulf States are pretty well protected under normal conditions against infiltrations of the drills, this due to the usual low salinity of waters over the reefs. The drought conditions experienced during the last few years were agreed to be the cause for the abnormal penetration of the drill and a resulting decrease in oyster production in certain areas.

Panel reports were placed on the program so that the Commissioners could hear direct from each state the results of preliminary investigation into the oyster and blue crab fisheries, such investigations resulting from the Commission resolutions concerning these fisheries which were adopted at the October 1952 Brownsville meeting.

The secretary passed out an exhibit which indicated the production by states from both private and public reefs and an FWS bulletin containing suggestions to states for increasing oyster production.

With regard to the Florida situation, Mr. Ingle said that state had no problem regarding spatfall and set, that growth was rapid and that a relatively easy avoidance of predators and disease was possible through proper selection of plots to be planted. He said the two principal reasons why Florida production had declined was because of pollution brought about by the rapid growth of the cities and the lack of interest by industry in private reef production. It was pointed out that standards of the federal public health service might not apply equally as well to the semi-trophical habitat of the Gulf Coast oyster as to other areas, and that the mentioned service was to undertake a re-evaluation of the standards in July, Pensacola Bay being the test area. Mr. Ingle stated that Cedar Keys had been selected as a test site for planting in an effort to broaden the scope of production. Experiments have been made in shipping the abundant but small Florida coon oyster to other producing states in the East but results of the transplant are not yet available. He also said that experiments are being made to check the desirability of coon oysters for the cocktail trade.

Mr. Rockwell explained that Alabama has the problem of predators and that they were attempting to overcome that problem through selection of planting area. He said that the problem of pollution in Mobile Bay was not one attributable to industrial waste but to raw sewage, which form of pollution has reduced production during the latter part of the catching season but has not killed the oysters. It was pointed out that some mortalities probably result from disease and that this problem was being investigated.

Dr. Hopkins explained that the current year's Mississippi production has been low and that the oysters harvested came principally from a section of the coast north of Lake Borgne. He said the mentioned area shows

promise of good yield provided shells are planted and that it is hoped this will be done for next season. Dr. Hopkins mentioned that the conchs had moved well shoreward in all areas due to the high salinities prevalent for the past couple of years. Telegraph Reef which was said to have been a very good producer has been practically depleted due to the conch, as well as have reefs in the Pass Christian neighborhood.

Mr. McConnell stated that the 1952 oyster production in Louisiana was much improved over the yearly average for several years past. He was understood to say that a program is now being drafted for presentation to the Louisiana Commission which would, if approved, permit the planting of shell on a sizeable scale in the neighborhood of Half Moon Island, an area capable of supplying essentials for very rapid oyster growth. The mentioned area in the Lake Borgne section is said to be normally free of conchs. It was pointed out that spatfall in Louisiana waters is generally very heavy and because of this condition emphasis is being placed on the timing of shell planting in order to minimize competition for space. The program mentioned by Mr. McConnell also includes expanded biological research and an increase in the percentage of shells to be returned by industry to the reefs.

The production of oysters in Texas according to Mr. Cecil Reid, has declined approximately 80% since 1938. He attributed this decline at least in part to six years of drought which Texas has experienced since 1938. The mush-rooming of industry and an accompanying increase in pollution was cited as another reason for decreased production. It was said that Galveston Bay reefs have supplied an increased yield during the current season and that the Texas Commission had detailed a biologist to determine the reason for the increase.

Mr. Dave Wallace, Director of the Oyster Institute of North America, spoke briefly on the subject of oysters and referred particularly to the work Virginia had accomplished in increasing private ground culture through granting leases. He said Virginia is the only state on the east coast that is increasing its annual production, the increase being more than 1/3 in the past 10 years during which period 100,000 acres were added to the private culture effort.

Next on the program was a panel discussion of the blue crab fishery. The purpose of this discussion was to learn what had been accomplished since the Commission's resolution adopted at the October 1952 Brownsville meeting was sent to the several state directors requesting check for possible trends toward depletion of the blue crab fishery. The secretary passed an exhibit showing blue crab production for various years since 1880, the last official FWS year's figure being 1950. It was suggested that the exhibits be filed and later annual figures be added when available.

Dr. Smith of Florida said that blue crab production in Florida appears from such statistics as are available to be about as high now as it ever has been.

He said he believed the fishery to be very much under-exploited and attributed the reason for this condition to be economic in character.

Speaking for Alabama, Mr. Loesch said crabs had been scarce for several years but this year they appear to be more abundant. He said a below normal rainfall for the past two years in Alabama may have caused a decline in the population.

Dr. Hopkins stated that he believed the crab fishery was under-prosecuted not only in Mississippi but in all of the Gulf States and that production could be increased if economic conditions were more favorable.

Mr. Viosca said he believed the crab fishery to be under-exploited in Louisiana. It was understood that Louisiana is planning a rather extensive study into the biology and migrations of the blue crab.

Mr. Reid said there appears to be no shortage of crabs in Texas, that the comparatively low production from year to year is simply due to economic conditions.

AFTERNOON SESSION

The Chairman asked the secretary to present summary reports as outlined in program.

Mr. Gunn reported that up to the present time no bills similar to H. R. 6862-Kennedy, 82nd Congress, had been introduced at the current session of Congress. He said that the Resolution which was adopted October 17, 1952 by the Commission at Brownsville was accompanied by personal letter to each member of the congressional delegations from the Gulf Coast states, and that acknowledgements indicated that the wishes of the Commission would receive proper consideration in the event a similar bill was introduced.

The secretary reported that the three resolutions concerning the blue crab fishery, the oyster fishery and the rendering of statistical fishery data were forwarded to the proper state authorities immediately following the 1952 Brownsville meeting.

An exhibit showing dead shell production, cubic yardage, revenue and unit price was distributed. Copy of the exhibit is attached to these minutes.

An educational bulletin showing the principal fish and shellfish of Florida was distributed. It was reported that Florida expects to distribute 15,000 copies of the fisheries booklet for the information of high school science students.

With regard to the proposed Commission work plan, prepared by Mr. Dodgen and forwarded by the New Orleans office to Commissioners for comment under date of December 15, 1952, the secretary reported that since no replies had been received it might be assumed that the Commissioners thought well of the plan. It was pointed out that to consider this general plan of operations in detail would consume considerably more time than was available so for that reason only a portion of it could be considered. Mr. Gunn chose to present for the consideration of the Commissioners that part of the plan which concerned statistics. The statistical program submitted concerned the gathering of records by each state from wholesalers or producers to indicate the monthly production by species and by area of capture. It was suggested that areas be established which would contain 60 square miles and be represented by 1 degree of latitude and 1 degree of longitude. Maps were distributed. It was further suggested that all such areas in the Gulf be given a number. It was proposed that a master sheet be prepared by each state which would show the poundage produced in all areas by fishermen from the state. These master sheets would be forwarded to the New Orleans office as soon as possible after the end of the month where a consolidated report would be prepared. It was said that this report would reflect the following:

Total production of each species in each area. Total production of each species in all areas. Total production of all species in each area. Total production of all species in all areas.

It was also suggested that the Headquarters Office be used as a focal point for the accumulation and distribution of biological and oceanographic data on an area basis as such information becomes available due to work on the outside by FWS and on the inshore by the several states. Such data would be transferred to master cards for each area. Such cards would in time develop a picture, when matched with area statistical and other data, of the relative productivity of the area.

Dr. Walford of FWS was called upon to express his thoughts in connection with the starting of the program involving a hydrological survey of the inshore waters of the several states, as had been previously approved by the Commission. Dr. Walford stated it seemed very clear that the key to the fertility of the Gulf of Mexico lies in the marshes and in the ecology of the inshore areas. He feels that work should be intensified in these areas since so little is known about such areas at present. In order to relate the physical environment and the biological environment with the abundance of all of the animals that spend at least a part of their lives in the marsh areas, Dr. Walford said the states would either have to enlarge their investigations or the FWS enlarge theirs. He estimated if the Service did the work it possibly would mean that \$25,000.00 would have to be added to the annual amount now being allocated to the Galveston operation. He suggested the states might apply for Dingell-Johnson funds. A discussion followed as to whether or not such funds could be made available for an

investigation of the character being considered, that is, for study of the physical environment of the fishes rather than the fishes (sport) themselves.

If FWS handled the collection of water samples for the entire coastline Mr. Collier stated they would assign a truck with a freezer type refrigerator installed to make a roundtrip to all stations every 6 to 8 weeks. Under this plan the states would take the FWS representative to the stations in state-owned patrol boats.

In discussion it was suggested by Mr. Eddy and Dr. Smith that before such a hydrological survey be undertaken that a suggested program be prepared for study by the Commission scientists. In this connection the Commission decided it would be well to have a meeting of its technical people during the summer to discuss not only the hydrographic aspects of an inshore program but to consider other studies which might lead to a better understanding of the fisheries. Additionally, it was thought that those responsible for statistics in the states should meet with the biologists to ascertain from them if by-area production figures were desired, and if so to draft uniform procedure. With the promise by Dr. Walford of mimeographed copies of the Lindner shrimp paper to be forthcoming in the immediate future, it was suggested that the scientists discuss the same at the mentioned meeting. The Galveston office of Gulf Investigations was designated as the meeting place. The secretary was requested to coordinate meeting date with the states.

Acting upon the suggestion of Mr. Bollinger, the Commission requested the secretary to find out to what extent Dingell-Johnson funds could be spent by the states in marine fishery research of the category under consideration.

Mr. Bollinger brought to the attention of the Commissioners that many trawls were being lost or badly damaged by dragging onto pieces of pipe, concrete blocks, parts of platforms and other items used in explorations and drilling for oil. He offered a motion to the effect that a committee be appointed to contact firms engaged in such work and solicit their assistance in reducing the dumping of obstructions in areas frequented by the shrimp fleet, and thus eliminate as far as possible loss of fishing time and net repair or replacement costs. The motion carried following presentation after Mr. Hendry's second.

It was agreed that no further recommendations be made at present to states reference either the oyster or blue crab fisheries.

It was decided that the next regular meeting be held at Tampa, Florida, it being that state's turn on the rotation plan. It was also decided that industry be asked to participate and the first day of the meeting be set aside for the Commissioners to hear from industry. The motion, which was proposed by Dr. Holmes and seconded by Mr. Hendry, also provided that the secretary communicate with each state director to ascertain who from industry would represent their state on a panel discussion of their views

regarding the fisheries. (Since regular meetings of the Commission fall on the third Thursday and Friday in each of the months of October and April, the Tampa meeting will be held October 15-16, 1953.)

Mr. Johnston presented a resolution wishing a speedy recovery to Mr. A. J. Harris, Jr. of the legal committee who was ill at St. Vincent's Hospital in Birmingham. The resolution was unanimously adopted following second by Mr. Bickerstaff. Copy is attached to these minutes.

It was agreed that no further recommendations be made at this time regarding the programs of the FWS in explorations or research.

Dr. Holmes moved for the adoption of the Minutes of the last meeting, October 16-17 at Brownsville, without reading. Mr. Bollinger seconded and the motion passed upon presentation.

Mr. Johnston inquired of FWS representatives present if the curtailment of allocations to the Service would affect the Gulf exploratory or research activities. It was said that no cut in Gulf allocations had been communicated to them. The secretary was requested to follow up.

Mr. Johnston proposed that the Work Plan submitted for the Commissioners' consideration December 15, 1952 be adopted as the official work plan of the Commission. Dr. Smith offered an amendment to the final paragraph to have same read:

"It would seem desirable that all publications on the subject of marine fisheries conservation be distributed through the Gulf States Marine Fisheries Commission in order that each state may be familiar with the work of the others. Such a plan would disseminate information and encourage greater unity in thinking and lead toward a more uniform effort in physical improvement."

Mr. Johnston accepted the amendment, Mr. Young seconded. The motion carried. Copy of Work Plan adopted is attached to these minutes.

The secretary referred to an outline of principal decisions reached and subjects discussed at Commission meetings through October 17, 1952, which was attached to the Commissioners' program file, and stated it was compiled at Mr. Dodgen's suggestion and that he would speak from the outline on subject matter covered if the Commissioners so desired. Because of the lateness of the hour, it was decided to dispense with this part of the program.

A summary of the Commission's financial status was attached to the program file and was accepted without reading by general voiced approval. The referred to summary is attached to these minutes.

Mr. Gautier expressed the gratitude of the Commissioners and their guests for the fellowship hour tendered by Mr. James McPhillips, McPhillips Packing Company, on the evening of April 16.

With no further business to come before the meeting, Mr. Gautier called for a motion for adjournment. Dr. Holmes so moved, Mr. Reid seconded, and upon vote the meeting adjourned at 4:25 PM.

Respectfully submitted,

W. Dudley Gunn Secretary-Treasurer

DEAD SHELL SATES

1952

State	Cu. Yds. Sold	Amount Collected	Unit Price per Cu. Yd.
Alabama	1,981,071.04	\$ 198,107.10	10¢
Florida	300,788.60	30,078.86	10¢
Mississippi	252,459.1	25,245.91	10¢
Louisiana			
Texas (fiscal)	9,172,365	642,065.52	7¢

A RESOLUTION

WHEREAS it has been brought to the attention of the Gulf States Marine Fisheries Commission in meeting assembled this day at Mobile, Alabama, that Hon. A. J. (Gus) Harris, able assistant attorney general of the great state of Alabama, is now in a hospital at Birmingham; and

WHEREAS as assistant attorney general this distinguished member of the Alabama Bar has been and is now acting as legal representative of the Conservation Department of his state, and as such he has been vitally interested in the work of this Commission, having been a member of the Legal Committee of the Commission continuously since the creation of the Commission; and

WHEREAS his absence from the meeting of the Commission today is the regret of all members present, and especially in view of the fact that his absence is due to his illness;

THEREFORE BE IT RESOLVED by the Commission in meeting assembled that we do hereby express to our friend "Gus" our sincere regrets occasioned by his being ill and hospitalized; and

BE IT FURTHER RESOLVED that we, individually and collectively do hereby wish for him a speedy recovery; and

FURTHER that the secretary be, and he is hereby, directed to mail to Gus a copy of this Resolution.

* * * * * * * *

The foregoing resolution was adopted by the Gulf States Marine Fisheries Commission, April 17, 1953, at a regular Commission meeting held at the Admiral Semmes Hotel in the City of Mobile, Alabama.

W. Dudley Gunn Secretary-Treasurer

WORK PLAN FOR THE GULF STATES MARINE FISHERIES COMMISSION (Adopted 4/17/53)

- 1. Drain on the present resources by annual harvest.
 - a. Is there an over-harvest of any species in any locality?
 - b. Are the present harvest methods of any species detrimental to that, or any other species, to the extent that methods should be changed or modified?
 - c. Should areas be set aside as nursery grounds to aid in annual crop?
- 2. Development of unused resources.
 - a. Is there a practical means of using scrap fish, and fish waste?
 - b. What valuable uses can be made of presently unharvested species?
- 3. Physical improvements to increase annual maximum yield.
 - a. Is physical improvement to inland waters possible, so as to improve fish production?
 - b. Is physical improvement to adjacent land needed to improve fish production?
 - c. Is artificial propagation of marine fishes feasible to improve annual production?
 - d. What effect does siltation have upon production? Should the Gulf States Marine Fisheries Commission work toward the encouragement of flood control and stoppage of marsh drainage?

It would seem desirable that all publications on the subject of marine fisheries conservation be distributed through the Gulf States Marine Fisheries Commission in order that each state may be familiar with the work of the others. Such a plan would disseminate information and encourage greater unity in thinking and lead toward a more uniform effort in physical improvement.

FINANCIAL SUMMARY

PREPARED FOR MOBILE, ALABAMA MEETING 4/17/53

Bank balance start fiscal year, July 1, 1952 Petty cash balance start fiscal year, July 1,1952	\$ 9,285.88 10.40	
Total start fiscal year, July 1, 1952		\$ 9,296.28
Membership dues received thru March 31, 1953		12,000.00
Total available for Operations		\$ 21,296.28
Bank balance close business March 31, 1953 Petty cash " " " "	\$ 10,990.83 7.30	
Total close business March 31, 1953		\$ 10,998.13
Total expended first 9 months current fiscal ye	ear	\$ 10,298.15

FORECAST:

Budget for year \$14,444.00, including \$500.00 depreciation reserve, or \$1,203.67 per month. Average expended per month thru 3/31/53 \$1143.12. With April, May and June to go, expenses (3 x \$1143.12 plus \$500.00 depreciation) the Commission's useable balance at close of fiscal year should be approximately \$7,068.77. \$8,068.77 if unpaid dues of \$1,000.00 are remitted before 6/30/53.