

SUMMARY MINUTES OF THE EIGHTH MEETING

INTER-AMERICAN TROPICAL TUNA COMMISSION

San Diego, California

July 30, 1956

The eighth meeting of the Inter-American Tropical Tuna Commission, being the regular annual meeting for 1956, convened at the Ward Room of the U.S. Grant Hotel in San Diego, California, beginning at 10:00 a.m. 30 July 1956.

Present were Sr. Don Miguel A. Corro and Sr. Don Sergio Crespo representing Panama; Sr. Lic. José Cardona-Cooper, Sr. Don Virgilio Aguiluz and Sr. Don Victor Nigro representing Costa Rica; Mr. E.D. Bennett, Mr. G.W. Sloan, and Mr. L. F. Payne representing the United States; Dr. M.B. Schaefer, Director of Investigations and several members of the scientific staff. The Government of Mexico was represented by a special observer, Sr. Don Julio Berdegué A., a scientist of the Dirección General de Pesca e Industrias Conexas. Also present were several members of the Advisory Committee to the U.S. Section, staff members of the Scripps Institution of Oceanography and others.

Chairman Miguel A. Corro opened the meeting with remarks on the importance of the Commission's work to Panama, and welcoming the observers and others in attendance. Additional opening speeches were made by José L. Cardona-Cooper on behalf of the Costa Rican Section and Eugene D. Bennett on behalf of the U.S. Section.

The tentative agenda which had been prepared for the meeting was unanimously approved and adopted. Thereafter were taken up the several points on the Agenda:

Approval for publication of the Annual Report for 1955

Copies of the draft of the Annual Report for the year 1955 had been sent to all Commissioners for review and comment prior to the meeting. No changes had been suggested, and no further modifications were suggested at the meeting.

It was moved, seconded, and unanimously passed that: The Annual Report for the year 1955, as drafted by the Director of Investigations, be approved for publication.

Presentation and discussion of research during the past year

At the request of the Chairman, Dr. Schaefer reviewed the research being conducted by the staff, and the progress made along the several lines of investigation. These were illustrated by a number of charts and graphs on lantern slides.

Research on the effects of fishing on the tuna stocks, based on analysis of current and historical statistics of fishing effort, abundance of tuna, and catch, had permitted estimation of the status of each of the tropical tuna

species, taken in the aggregate, in the Eastern Tropical Pacific. The skipjack tuna appear to be, currently, fished at a level of effort well below that corresponding to maximum sustainable yield. Yellowfin tuna, on the other hand, are being currently exploited by a fishing intensity not far below that corresponding to maximum sustainable yield. The recent trend of the fishing effort has been downward, and the fishing fleet will probably continue to decrease in the near future, due to economic vicissitudes. When the industry is again able to resume its growth, and the fishing effort increases to its former levels, it may be necessary to make conservation recommendations for yellowfin tuna.

Research on the biology and life history of yellowfin and skipjack tuna is being concentrated primarily on studies to elucidate the population structure and migration of these species, because it will be necessary to treat each sub-population as a separate unit, if the species are, in fact, separated into distinct or semi-distinct biological units. In addition, studies are being conducted to elucidate the aspects of biology and behavior of tunas important to the designing of efficient conservation recommendations when and if required.

Progress was reported on expanded investigations into the relationships of the tunas to their physical, chemical and biological environment, the spatial and temporal variations of which need to be understood in order to explain variations in the harvests not related to changes in amount of fishing.

Studies of baitfishes have been concentrated on the anchoveta, Cetengraulis mysticetus, which is the most important of the several species used for tuna bait. Analysis of current and historical statistical data regarding fishing for this species indicates that in each of the major baiting areas the population of anchovetas is subject to rather large variations in abundance not associated with amount of fishing. It appears that in each of the major areas, at current levels of fishing effort, variations in environmental factors are of greater importance in determining the abundance than the effects of fishing. This species is normally short-lived and fast-growing, maturing sexually at one year of age. In most areas it is essentially an annual crop, and in no area are there more than two or three age classes in the catch.

Extensive investigations in the Gulf of Panama are being conducted to elucidate the details of the life history, ecology, and biology of the anchovetas. Detailed studies are also being conducted throughout the year on the hydrographic regime and its effects on the basic biological productivity of the waters of the Gulf, as a basis of eventually understanding the causes of "natural" fluctuations in the abundance of the anchovetas.

The population of anchovetas in the Gulf of Nicoya, resulting from the transplantation of 1953, continue to reproduce, and appear to have increased somewhat and spread over a wider area during the past year. The population is, however, still far below a size permitting commercial exploitation. Research is continuing to keep track of this population, to study the biology of the species, and to study the hydrography of the Gulf of Nicoya.

A number of questions were asked by the Commissioners and members of the audience on various aspects of the researches, which were duly discussed.

Program of Investigations for Fiscal Year 1956-57

The Commission has recommended a budget of \$379,912 for the current fiscal year. Contributions from member Governments will amount to \$353,739. It appeared, therefore, possible to undertake essentially the full program of research recommended by the Commission at its last meeting. The Director of Investigations had prepared a detailed outline of the proposed investigations during the fiscal year, as follows:

1. Collection, compilation and analysis of catch statistics, logbook records, and related data for the tunas and baitfishes.
 - a. Continue routine collection and compilation of current data. ✓
 - b. Completion and publication of manuscripts reporting on analyses of historical series of catch statistics for tunas and baitfishes.
 - c. Continuation of analysis of data respecting tuna catches by geographical and seasonal sub-divisions.
 - d. Further development of theory of fishery dynamics and applications to the tropical tuna fishery.
 - e. Examination of relationship between intensity of fishing and average size of yellowfin tuna, based on logbook data of pole-sizes of fish captured during the past decade.
2. Investigations of life history, biology and population structure of tunas.
 - a. Continue market-measurement program at San Diego and San Pedro to provide information on age, growth, and size composition by geographical sub-areas. Supplementary data to be collected in northern Peru incidental to tagging program.
 - b. Morphometric studies of yellowfin and skipjack based on measurements at sea on freshly-caught specimens.
 - c. Studies of tuna maturation and spawning based on examination of gonads of specimens landed at San Pedro.
 - d. Studies of schooling habits of tunas:
 - 1) Completion of analysis of logbook records of individual "sets" of purse seiners.
 - 2) Collection of additional observations at sea, from seiners and clippers, respecting degree of aggregation by species and by size.
 - e. Studies of distribution of planktonic larvae (and possibly eggs) of tropical tunas based on:

- 1) Material collected by "Eastropic" expedition in October-December 1955.
 - 2) Material to be collected during "Scope" expedition in fall of 1956 (see below).
 - 3) Material collected during seamount project (see below) in spring of 1957.
 - 4) Materials collected on a special cruise to Revilla Gigedo Island area during tuna-spawning season in spring or summer of 1957.
- f. Observations, by scientists aboard commercial fishing vessels, of seasons and areas of occurrence of juvenile tunas.
 - g. Study of food-habits of tunas based on collections of stomach contents of tunas at sea from commercial fishing vessels and research vessels incidental to other operations.
 - h. Studies of the geographical variations in standing crops and productivity of organisms at the base of the food chain, and the relationship thereof to the regions of concentration of the tuna populations. These studies to be conducted from research vessels in cooperation with Scripps Institution of Oceanography by an expedition in the fall of 1956 ("Scope") in several regions of the Eastern Pacific between California and Peru, and by a special cruise in the spring of 1957 to study processes in the vicinity of islands and "banks" (seamounts).
3. Tuna tagging.
 - a. Further development of improved tags and tagging techniques.
 - b. Expansion of tagging program from U.S. commercial vessels.
 - c. Tagging aboard vessels operating from Paita and Mancora, Peru, by scientists stationed there during 1956-57.
 4. Oceanography and tuna ecology.
 - a. Continuing analysis of existing oceanographic and meteorological data from the Eastern Tropical Pacific for:
 - 1) General description of the oceanographic circulation of the region.
 - 2) Correlation of seasonal and annual variations of meteorological and oceanographic factors.
 - b. Completion of reports on descriptive oceanography of the region based on data prior to and including the "Shellback" expedition.

- c. Continuation of analysis of physical and biological data from "Eastropic" expedition.
 - d. Investigation of basic productivity and standing crops of organisms at the lower end of the food chain in selected areas, in cooperation with Scripps Institution, on an expedition ("Scope") in the fall of 1956. Correlation of results of this study with geographic distribution of tuna concentrations.
 - e. Further investigations of possibility of obtaining useful oceanographic data by means of equipment aboard commercial fishing vessels.
 - f. Further developmental work on tide gauging and temperature recording equipment to be established on outlying islands and coastal points. Cooperation with island observing program of the International Geophysical Year, especially with respect to establishment of stations on Galapagos, Clipperton, and perhaps Cocos Island.
 - g. Planning for shipboard oceanographic work of interest to the Commission during the International Geophysical Year.
 - h. Preliminary studies toward development and use of fixed and free-floating telemetering buoys for obtaining physical oceanographic data.
 - i. Special study in the spring of 1957 on the effects of islands and seamounts on vertical circulation and associated biological factors, to attempt to account for tuna concentration in such situations.
5. Bait-fish research
- a. Continued field studies in Costa Rica to evaluate transplantation experiment, and to study biology and ecology of anchovetas.
 - b. Continued field studies of biology, ecology and life history of the anchoveta stock of the Gulf of Panama.
 - c. Extension of observations and collections down the Colombian coast to determine limits of Panama anchoveta stocks, and relationship to stocks off Colombia.
 - d. Completion for publication of analyses of statistical data on bait-fishes, based on clipper logbook records.
 - e. Continuation at headquarters laboratory of studies of larval and juvenile stages of anchovetas and related species; racial characteristics of anchoveta stocks; age, growth and spawning of anchovetas in the several major baiting areas.
 - f. Limited field collections of anchovetas in other areas than Panama and Costa Rica to supplement material collected by the tuna fleet.

This proposed program was discussed, after which it was moved, seconded, and unanimously adopted that: The program of investigations prepared and recommended by the Director of Investigations for the fiscal year 1956-57 be approved and adopted.

Research program and budget for fiscal year 1957-58.

The Director of Investigations had transmitted to the Commissioners and Advisors, on May 29, 1956, detailed recommendations for the research program for the fiscal year commencing July 1, 1957, together with estimates of funds required, amounting to \$352,700.

The recommended program is a continuation of the research during the previous year, with some changes of emphasis on the several lines of investigations. Since the program will be up to full operating strength during 1956-57, no increase is requested for 1957-58.

The Commissioners discussed the program and the budget, and ascertained that each of the member Governments is satisfied with the program and agreeable to the proposed budget. It was also determined by questioning of members of the Advisory Committee that it is satisfied with the progress so far attained, and with the program and budget proposals for the next fiscal year.

It was then moved, seconded and unanimously approved that: The Commission approves the program of investigations for the fiscal year 1957-58 prepared by the Director of Investigations and previously transmitted to the Commissioners; to conduct these investigations a budget is recommended for the period July 1, 1957 through June 30, 1958 in the amount of \$352,700.

Proportion of contributions of member Governments for fiscal year 1957-58.

At the request of the Chairman, Dr. Schaefer presented statistics of the utilization during 1955 of tropical tunas from the Eastern Pacific by the three member nations (as defined by the resolution of the 1953 annual meeting):

United States of America	- 262,260,000 pounds
Costa Rica	- 805,000 pounds
Panama	- no utilization

Therefore, in accordance with the formula adopted by the Commission at its 1953 meeting, the contributions of the three member Governments to the joint expenses of the Commission should be:

United States	- 99.7%
Costa Rica	- 0.3%
Panama	- Minimum contribution (\$500)

A question was asked as to the share of the tuna utilization by the United States that are transshipped from other countries for processing in the United States. Dr. Schaefer indicated that the Commission's records show that of the 262 million pounds, approximately 32 million pounds were landed initially in other countries and transshipped to the U.S. for canning. No accurate data are

available to show what share of the 32 million pounds is caught by American Flag vessels, but a rough estimate would be about two-thirds.

In reply to a question as to the amounts of tuna utilized (as defined by the 1953 resolution) by non member governments, it was indicated that in 1955 approximately 5½ million pounds were canned outside the U.S. and Costa Rica. An unknown, but completely negligible amount, is used fresh in some Latin American countries; no statistical data are available on this amount, however.

It was ascertained by the Commissioners that the share of contributions as above computed under the 1953 resolution is satisfactory to each of the member Governments.

It was then moved, seconded, and unanimously approved that: The joint expenses for the Commission for fiscal year 1957-58 shall be in the following proportions: United States - 99.7%; Costa Rica - 0.3%; Panama - minimum contribution of \$500.

Employee retirement plan

A communication had been received from the U.S. State Department that it had under consideration the establishment of a retirement plan for employees of the International Fisheries Commissions to which the U.S. is a party. Details had not yet been worked out, but the general plan was to provide for retirement, through some insurance company, based on employee contributions of about 6% of salary plus matching contributions by the employer (the Commission). The estimated contribution by the Commission would be in the neighborhood of \$5,000 to \$10,000 per year; the Department of State would contemplate requesting additional appropriations for this purpose.

At this time it was not requested that the Commission approve a retirement plan, but merely that it consider the desirability of establishing such a plan and, if desirable, permit the Director of Investigations to work with the State Department on a detailed proposal, to be submitted to the Commissioners for consideration.

After some discussion of the possible advantages and disadvantages to the Commission of having an employee retirement plan it was moved, seconded and unanimously approved that: The Commission approves in principle the idea of a plan for employee retirement; the Director of Investigations is authorized to work with the U.S. State Department on the details of a specific proposal, said proposal to be submitted in detail in writing to the Commissioners for approval or disapproval.

Election of Officers for the next year

Mr. Gordon W. Sloan, of the United States, was nominated as Chairman of the Commission for the following year. This nomination was seconded, and he was unanimously elected.

Sr. Don Miguel A. Corro of Panama, was nominated Secretary for the following year. This nomination was seconded, and he was unanimously elected.

Next Annual Meeting

The next meeting should be held in Costa Rica, under the procedure whereby the annual meetings are held in turn in each of the member countries. It was brought out that it would be most convenient to have the meeting somewhat earlier in the year, and that since the Commission can probably ascertain the amount of funds to be appropriated further in advance than in the past, this would present no administrative difficulty.

After further discussion of possible dates, it was moved, seconded, and unanimously approved that: The next annual meeting will be held in San José, Costa Rica, commencing the first Tuesday in March (5 March 1957).

Training of students

In order to provide training for students in the scientific disciplines of importance to the Commission, the following resolution was proposed: "The delegates of Costa Rica and Panama proposed the creation of three annual fellowships, for one student of each one of the countries signatory to the Convention, for courses of study in Oceanography in the United States. Each fellowship will be for one year or more, and will carry a stipend of not less than \$240 per month, which is to be paid by the Commission. The Director of Investigations will be in charge of the handling of these fellowships".

The resolution was discussed at some length. It was brought out that there is no provision in the budget for the current year for this purpose; there is some doubt as to whether the member Governments would consider this to be a proper function of the Commission; there exist other sources of funds for this purpose, including the scholarship program of the International Cooperation Administration of the United States, and the scholarships offered by various private foundations. It might, therefore, be most expeditious to obtain scholarships from these other sources for students from Costa Rica and Panama. Further information on this is required before a decision can be made.

It was, therefore, moved, seconded and unanimously approved that: The Director of Investigations is authorized to investigate the possibility of obtaining scholarships or fellowships through other agencies, and the availability of qualified candidates for such fellowships or scholarships in Costa Rica and Panama, and to report on this to the Commission at the next annual meeting.

There being no further business to come before the eighth meeting of the Inter-American Tropical Tuna Commission, it was adjourned at 3:50 p.m.

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8/10/56