INTER-AMERICAN TROPICAL TUNA COMMISSION

SUMMARY MINUTES OF THE THIRTY-EIGHTH MEETING

October 28-29, 1980
Washington D.C., USA

Chairman: Alan Ford

AGENDA

38th MEETING OF THE INTER-AMERICAN TROPICAL TUNA COMMISSION

28, 29 October 1980

Washington D.C., U.S.A.

1. Opening of the Meeting
2. Consideration and Adoption of the Agenda
3. Review of Current Research
4. Tuna-Porpoise Program
5. The 1980 Fishing Year
6. Condition of the Yellowfin Stock and Recommendation for 1981
7. Recommended Research Program and Budget for FY 1982-1983
8. Review of Negotiation toward a New or Modified Tuna Convention
9. Place and Date of Next Meeting
10. Election of Officers
11. Other Business
12. Adjournment

SUMMARY MINUTES OF THE THIRTY-EIGHTH MEETING

AGENDA ITEM 1 - OPENING OF THE MEETING

The 38th meeting of the IATTC was opened by Mr. Gerald V. Howard at 10:50 AM, October 28, 1980, in the Loy Henderson Conference room in the Department of State Building. Mr. Howard explained that the 37th meeting had not been concluded and that its chairman had asked him to formally close the 37th meeting before opening the 38th meeting. Having done so Mr. Howard noted that he had retired from his position with the U.S. National Marine Fisheries Service and suggested that it would be more appropriate for his successor Mr. Alan Ford to chair this session. Mr. Ford was elected by unanimous consent.

After taking the chair Mr. Ford extended a cordial welcome to all Commissioners, government observers, representatives of international organizations, and other attendees of the meeting. He then asked the leaders of delegations to introduce themselves and the members of their delegations. All member governments of the Commission were represented at the meeting. A list of attendees is attached as Appendix 1.

AGENDA ITEM 2 - CONSIDERATION AND ADOPTION OF THE AGENDA

The Chairman introduced Agenda Item 2, which was concerned with the consideration and adoption of the Agenda which had been distributed before the meeting. There was no discussion and the Agenda as circulated was adopted.

The Chairman suggested a working schedule of 9:30 AM - 12:30 PM and 2:00 PM - 4:30 PM. There was no objection to this schedule, and it was adopted.

AGENDA ITEM 3 - REVIEW OF CURRENT RESEARCH

The Chairman next moved to Agenda Item 3, explaining that it has been the customary practice of the Commission to have the Director of Investigations present a brief review of the Commission's research during the current year. He called on the Director to make this presentation.

The Director began his review by explaining that during 1980 the Commission completed its 30th year of research on the tunas of the eastern Pacific Ocean. He explained that a major share of the staff's research effort has been directed toward the collection of catch statistical data. For purposes of stock assessment such data may be collected several weeks or months after the catches take place, but for purposes of management the data must be collected on a current basis. Since the Commission maintains an active conservation program, considerable effort by the research staff is directed toward the collection of statistical data on

a current basis. To accomplish this the Commission maintains offices in most of the major tuna fishing ports of the eastern Pacific, and the data gathered at these locations form the basis for the staff's statistical research. The Commission also has a system for monitoring the catches of vessels at sea.

After his explanation of the basic data collection, the Director went on to review some of the major research projects in which the staff is engaged.

The Commission has for many years carried out tagging programs in the eastern Pacific to study migration, stock boundaries, and vital parameters. During 1979 there was one eastern Pacific tagging cruise in which about 5,000 yellowfin and 2,500 skipjack tuna were tagged off Central and South America. The Director noted that the positions at which fish have been recaptured show that some move all over the eastern Pacific emphasizing the need for international management of the fisheries for these species.

The Director also summarized the tagging work that has been carried out by the staff in the central Pacific region around the Marquesas, Tuamotu, and Society Islands. The Commission is interested in this area because skipjack do not spawn in the eastern Pacific and the stocks exploited by the eastern Pacific fishery migrate into the area from elsewhere. One possibility is that they originate in the area of the Marquesas Islands. During two and a half years the Commission has tagged 25,000 skipjack and several hundred yellowfin in the area. So far there have been about 250 skipjack recovered, all in the area of French Polynesia. During the cruises in this area information about the distribution of skipjack was collected with the intention of assessing the possibilities for large scale fishing operations. The Director noted that because of the behavior of the fish in this area they would be difficult to catch with purse seine gear, and, although baitfishing was successful, it was difficult to obtain suitable bait.

The staff has also been engaged in a northern bluefin tuna tagging study in cooperation with the Far Seas Fishery Research Laboratory at Shimuzu, Japan. During 1980 the Commission tagged 845 small bluefin off Japan. More than 100 of these have been recaptured near Japan, and it is expected that in the future some of the tagged bluefin will be taken in the eastern Pacific fishery.

The Director next reviewed progress in studies of age and growth, using increments on yellowfin and skipjack otoliths. These studies have shown that yellowfin between 40 and 110 cm deposit one ring per day while skipjack deposit rings at a slower rate. Further investigation is required on yellowfin of other sizes before this technique can be used for ageing.

The Director then reviewed recent stock structure investigations. Previously the staff had studied differences in blood serum proteins. Those studies had suggested heterogeneity of yellowfin stocks in the eastern Pacific, but had not led to a clear definition of stocks. The latest work involves studies of chemical composition of hard parts as reflected by the spectra of back scattered X-rays produced by an electron microscope or cyclotron. Early trials showed differences

between samples of fish selected from northern and southern areas of the fishery.

The Director described continuing studies which relate the thermal profile of the ocean to the vulnerability of tuna to purse seines. Good fishing has normally occurred when the 15°C and 23°C isotherms come close to the surface. The Director noted, however, that the converse of this was not always true.

The Director then went on to discuss the skipjack fishery in more detail. There are northern and southern components to this fishery and the Director described a decline and a northward movement of the southern fishery from off the coast of Ecuador towards Central America. He noted that this shift, and simultaneous changes in other fisheries, appeared to be related to changes in currents and water temperatures which have occurred over the last ten years. He also noted a large anomaly during 1980 in the catch from the northern fishery off the coast of Mexico. In 1980 the catch is expected to be 60,000 tons, about twice as much as in any previous year. There have also been unusually high skipjack catches outside of the CYRA.

Finally the Director reviewed investigations into the eastern Pacific fisheries for northern bluefin, bigeye, and black skipjack tunas.

oct. 28

Following the Director's research review the Chairman adjourned the meeting for lunch at 12:10 PM.

The meeting reconvened at 2:40 PM and the Chairman asked for questions or comments on the research review. Dr. Le Guen of France offered four comments. First, he noted that the discrepancy between the formation of marks on otoliths of yellowfin and skipjack might be because the skipjack were mature, and the yellowfin inmature, and that it was possible that changes in environmental conditions would interrupt the daily formation of rings. Second, he commented on the difficulty involved in defining stocks based on chemical or genetic differences. Third, he noted that in New Caledonia he had observed high concentrations of skipjack larvae along temperature fronts six months after an El Niño. Last, he commented on the use of diagrams showing positions of tagging and recapture to show migration routes. The Director replied that it was likely that the yellowfin involved in the otolith study were in fact more mature than the skipjack, and that he agreed with Dr. Le Guen's other points. There being no further questions or comments the Chairman moved to the next agenda item dealing with the tuna porpoise program.

AGENDA ITEM 4 - PROGRESS OF THE TUNA-PORPOISE PROGRAM

The Chairman asked Dr. Joseph to review the tuna-porpoise program for the meeting. Dr. Joseph began by giving the background for IATTC involvement in porpoise research. Porpoise and larger yellowfin associate with each other in the eastern Pacific, where they are caught together by purse seiners. In the process, some porpoise are killed. During the 1960's and early 1970's porpoise mortality was high, with as many as half a million animals being killed annually. This caused international concern, especially in the United States, which passed

a law (the Marine Mammal Protection Act) which has as one of its goals the sharp reduction of porpoise mortality in the purse-seine fishery. At the Commission's 33rd meeting, held in Managua, Nicaragua, in October 1976, it was agreed that the IATTC should concern itself with the problem. As its objectives it was agreed that: "(1) the Commission should strive to maintain a high level of tuna production and (2) also to maintain porpoise stocks at or above levels that assure their survival in perpetuity, (3) with every reasonable effort being made to avoid needless or careless killing of porpoise."

Funding for the program became available in mid-1978, and during that year a staff was recruited and observer training begun. The program includes placing scientific technicians aboard purse seiners of the international fleet for data collection, studies of the population dynamics of the stocks involved, and a gear program for development of gear technology and extension work.

The Director reviewed the distribution of the four major species involved in the fishery, and then went on to describe some of the highlights of the staff's recent work.

One of the most important items has been the data collection aboard seiners. The 1980 program was planned in conjunction with the US and Mexican programs and included plans for sampling 103 trips from both member and non-member countries. The non-member countries whose vessels were sampled in 1980 were Costa Rica, New Zealand, and Venezuela. The Director noted that the IATTC staff and officials of the Mexican Government were attempting to finalize an agreement under which Mexican vessels would be included in the sample.

The data collected are used for making estimates of mortality, abundance, and for biological studies. The estimate of mortality for 1980 (through September 16) was 23,000 animals, slightly more than the estimated number killed during all of 1979. The Director reviewed mortality estimates from 1973 until 1980, and noted the large reduction in mortality between 1976 and 1977 which resulted from improved gear and techniques, and a further decline in the years 1978, 1979, and 1980 associated with a reduction in the catch of yellowfin in association with porpoise. The Director commented on the large variability of these mortality estimates and noted that, while most sets caused no mortality, a large part of the mortality estimates resulted from a few sets with a high observed mortality.

The Director then reviewed recent assessments of stock sizes. He first discussed estimates made by NMFS workshops, the most recent of which was based on data collected during aerial surveys. He went on to discuss estimates for the eastern spinner stock based on data collected aboard tuna seiners. These stock size estimates showed a decline over the years 1978, 1979, and 1980. Because this decline may be a result of a failure to meet the underlying assumptions of the estimation scheme and not necessarily reflect a real population decline, the Director noted it was something which should be watched in the future rather than the cause for immediate action.

The Director then went on to discuss the gear program, and in particular the experimental use of moored rafts to aggregate tunas independently of

porpoise. To fulfill its responsibilities the staff had prepared a list of fishing techniques and gear designs which were known to significantly reduce mortality. The Director described these and recommended that the Commission consider taking some action on them.

Commissioner Howard of the United States complimented the Director on the work accomplished in response to the goals of the Commission's tuna-porpoise program, and noted that the United States already has a set of regulations that are somewhat more restrictive than the measures proposed. He suggested that the best way to deal with the recommendations was not to formally adopt them in a resolution at the meeting, but instead to have Commissioners communicate them to their respective governments.

Commissioner Roudie from France congratulated the Director on his report. However, in view of the conditions in the yellowfin fishery, he was unable to support the recommendations at this time.

Commissioner Beckett of Canada and Commissioner Rodriguez of Panama supported the Unted States. The Chairman, with the agreement of the meeting, asked the Director to summarize the recommendations in the minutes. This summary is included as Appendix 2.

AGENDA ITEMS 5 AND 6 - THE 1980 FISHING YEAR AND THE CONDITION OF THE YELLOWFIN STOCK AND RECOMMENDATION FOR 1981

In introducing Agenda Item 5, discussion of the 1980 fishing year, the Chairman explained that because this agenda item was so closely tied to Agenda Item 6, assessment studies of yellowfin, he would ask the Director of Investigations to discuss both items together. The presentation was supplemented by numerous tables and graphs, all of which are included in Background Papers 1 and 2.

The Director noted that the Commission began research on the tuna stocks of the eastern Pacific in 1950. It has been established that the present levels of exploitation of yellowfin are sufficiently large to affect its abundance in subsequent years, but such is apparently not the case for skipjack. By 1960 it was estimated that the maximum sustainable yield of yellowfin from inshore areas then under exploitation was 90 to 100 thousand short tons annually. In the early 1960's much of the fleet changed from baitboat fishing to purse seining, and catches increased to about 120 thousand tons, which was greater than the estimated sustainable yield for the fishery. Subsequently, the catch declined to about 80 thousand tons.

In 1962 the Commission first recommended a yellowfin quota, and in 1966 a conservation program for yellowfin tuna was established. Shortly after the initiation of the conservation program construction of new vessels caused the fleet to increase in size. This increase in fleet size increased competition and vessels began fishing further offshore in areas that had not previously been exploited. It was clear that the potential yield from the population relative to that during the period when the fishery was concentrated inshore on smaller fish had increased. In order to generate information with which to

quantify this increased potential yield, the Commission began an experimental program of gradually increasing the quotas to test empirically the productivity of the stock. At the same time, areas of the CYRA where effort had not previously been generated were experimentally left open after closure elsewhere. The results of this unique experiment showed that the yellowfin fishery was capable of sustaining a catch of about 175,000 tons within the CYRA.

The Director then reviewed progress to date of the fishery during 1980, comparing this year to 1978 and 1979. Fleet deployment by week, both within the CYRA and west of the CYRA, was discussed, as were the accumulating catches of yellowfin and skipjack. The geographical distribution of the effort, the catch by flag, and the fleet capacity by flag were also considered. The yellowfin catches of 1980 are below those observed in 1979, with a total 1980 catch of about 170 thousand tons expected. The 1980 skipjack catches are close to those for 1979 and below the levels taken in 1978, the best skipjack year in history. Nevertheless, 1980 has been a better than average skipjack year, with a total catch of about 130 thousand tons expected by the end of the year. Skipjack catches in the area north of 15°N have been better this year than ever before. The Ecuadorian fishery was poor. Because of good weather the fishery in the area west of the CYRA started in April and yellowfin catches have been greater than those of 1978 and 1979, but they are still considerably below the peak year catches in 1974, 1975, and 1976. The skipjack catches in the area west of the CYRA have also been unusually good, with the catch to date of 12 thousand tons being already greater than the total for any previous year.

The Director reviewed the historical development of the fleet. In the mid-1960's the fleet capacity was 40 thousand tons, growing to 170 thousand tons by the mid-1970's, and currently being about 188 thousand tons. Because of the large amount of construction underway, it is expected to increase further.

The Director then went on to review the status of the yellowfin stocks. He discussed various methods of stock assessment used for other fisheries such as acoustic or egg and larval surveys, and noted for various reasons that these were not effective for yellowfin stocks, and that the staff relied more heavily on catch rates for indices of abundance. These indices have been used in conjunction with production models which show a maximum sustained yield of about 175 thousand tons. There are still not enough data to show the exact shape of the overfishing side of the yield-effort curve, but it is clear that the effort is now greater than that required to produce the maximum yield. Depending on the exact shape of the curve, the sustained yield that would be produced by the current level of effort is between 160 and 173 thousand tons.

The Director then reviewed the size composition of the catch noting that since 1973 average size has been declining. Age structured models showed that the yield per recruit could be increased by increasing the size of first capture for yellowfin. This raised the question of whether it is feasible to protect small yellowfin. The Director concluded that because of the mixing of both different size yellowfin and of yellowfin and skipjack in the same school, it would not be possible to protect small yellowfin without substantial losses of skipjack and larger yellowfin.

Bearing in mind the need to ensure the stock does not decline further and the uncertainty in the exact form of the production model, the Director recommended a quota this year of 160 thousand tons.

The Director then turned to conditions in the fishery west of the CYRA and east of 150°W longitude. Effort and catches from this area have been low since 1977 and will increase a little in 1980. From tagging studies, it is known that the exchange rate of fish between the inside and outside areas is relatively slow, so the decline of the catch outside the CYRA should not be attributed to reduction of the yellowfin stock inside the CYRA. Instead it appears that the reduced catches are the result of reduced effort. Indeed, since 1970, the catch has been linearly related to effort, and the catch per day of fishing has remained more or less constant. Based on these facts, the staff concluded that there presently is no need for regulations in the area west of the CYRA.

This concluded Dr. Joseph's presentation on Agenda Items 5 and 6.

The Chairman invited discussion of the Director's presentation. Dr. Le Guen of France commented that the production model does not include much biological information about the stocks and noted that there were too many small fish in the catch. He believed the Commission should take some action to improve the situation.

Commissioner Howard of the United States asked a series of questions relating to the predicted catch for 1980. the likely future course of the fishery if no quota were imposed, the effectiveness of increments to the quota, and the difficulty of setting an accurate closure date.

The Director replied that he estimated 170 thousand tons of yellowfin would be taken from the CYRA this year. In recent years the fishery had been taking, on the average, more from the stock than should have been taken, and consequently the stock is below the level that would produce the greatest sustained yield. If this situation persists, the stock size and catch rate can be expected to decline further, eventually making the fishery uneconomic. The Director noted that the carrying capacity of the fleet now exceeds the recommended quota, and consequently decisions about the closure date have to be made on the basis of data from a very short period at the beginning of the year. It is becoming more difficult to predict the final catch from the CYRA, and it is possible that errors in predicting the final catch may be larger than the quota increments.

Dr. Szekely from Mexico then asked the Director a series of questions about the geographic distribution of catches, the effect of the delay in the 1979 closure and of having no closure in 1980, and the effect of recent unilateral restrictions on national catches by some nations. The Director replied that he would circulate tables showing combined yellowfin and skipjack catches within the various jurisdictional zones within the CYRA for the years 1975 to 1980. These tables are attached as Appendix 3. The Director noted that the continued lack of an effective international conservation program would lead to a progressive decline in sustainable yield. Because of the migratory nature of tunas, no one country can effectively manage the resource. The meeting was recessed for lunch at 12:20 PM.

OCT. 29

The meeting was reconvened at 2:40 PM. The Chairman first returned to Agenda Item 4 and asked if the draft of the document describing the staff's recommendations was agreeable to all Commissioners. Mr. Miyamoto of Japan then noted that because Japan was not involved in the porpoise fishery, there was no need to advise the Japanese Government of porpoise saving measures. There being no objections the Chairman asked that the staff's redrafted recommendations be attached to the minutes.

The Chairman then asked for comments on the recommended quota. Mr. Beckett from Canada noted that a quota of 160 thousand tons was an attempt to preserve the status quo, rather than an attempt to rebuild the stock. He supported the earlier statements about small fish, and pointed out that there are indications that a much lower quota, for example, 120 thousand tons would be more prudent.

Commissioner Rodriguez of Panama supported Commissioner Beckett. He pointed out the futility of current investment if the resource was to become depleted.

Commissioner Urroz of Nicaragua also expressed his concern for the state of the yellowfin stocks. In view of the fact that there was not an effective quota in either 1979 or 1980, he believed it was important to implement a quota in 1981. He stressed the need to avoid future stock problems which might aggravate the economic situation for developing countries which were planning to enter the fishery.

Commissioner Roudie of France stressed the need for a consensus on this matter, and said France would support the resolution provided other countries agreed also.

Commissioner Howard of the United States said that the United States was agreeable to a quota of 160 thousand tons, with the reservation that the United States cannot implement such a quota unless there is international agreement to do so. He commented that it would be a mistake to lower the quota drastically. He noted that the 1980 catch was likely to be close to the recommended quota, and there was no reason for real alarm about the state of the stocks.

The Chairman asked for some action on the recommendation and, on Commissioner Howard's suggestion, asked the Director to draft a resolution.

AGENDA ITEM 8 - REVIEW OF NEGOTIATIONS TOWARD A NEW OR MODIFIED TUNA CONVENTION

The Chairman asked the Director to review progress made in negotiations towards a new convention. The Director referred to a memorandum, dated June 4, to the Commissioners describing various meetings that had occurred between September 1977 and October 1979. Substantial progress had been made at these meetings but there remained differences on two or three issues.

Ambassador Busby of the United States discussed the United States' view of the negotiations during the last year. Because of difficulties in achieving a long term agreement, Mexico and the United States attempted to reach an interim agreement for three years. However it appeared that these negotiations met the

same problems as those for a long term agreement, and the United States suggested reverting to negotiating for a long term agreement. The outstanding issues seen by the United States were the provision concerning the last open trip and the question of whether coastal state allocations should be fixed or vary in relation to the annual quota.

Dr. Szekely of Mexico noted that Mexico had shown its interest in achieving a new regional agreement for conservation of tuna in the eastern Pacific by sponsoring negotiating meetings during the last four years. The Government of Mexico had delayed implementing its own conservation legislation in the hope that a new agreement would be reached quickly. Mexico is committed to concluding a new agreement satisfactory to all parties and is now waiting for new facts which can be the basis for further negotiations.

Commissioner Roudie of France said that France shared the thesis of the right of coastal states to manage resources within 200 miles. He said that France was prepared to support resolutions which would help bring countries together. He noted that it was urgent to deal with the problem speedily so conservation measures could be taken in a coordinated fashion.

Commissioner Rodriguez of Panama supported Commissioner Roudie, and asked that all coastal states be kept informed of the progress of negotiations between Mexico and the United States.

Commissioner Urroz stated that Nicaragua was aware of the necessity for a new convention to guarantee the conservation of tuna. He noted that Nicaragua was ready to go into a new round of negotiations for a new convention.

AGENDA ITEM 7 - RECOMMENDED RESEARCH PROGRAM AND BUDGET FOR FY 1982-83

The Chairman asked the Director to discuss the research program and budget for FY 1982-83. The Director said the proposed budget had been circulated as background paper number 3. Essentially it was similar to the budget for 1981-82, but contained a 7% increase to partially compensate for inflation.

Commissioner Howard of the United States noted that within his country budgets are being subjected to more scrutiny and in particular there have been requests to have budgets of International Commissions studied more closely. In response to these requests he suggested that in the future the Director draw up a more detailed budget and that future meetings include an executive session to study the budget.

Commissioner Miyamoto noted that Japan does not intend to contribute to the tuna-porpoise budget as Japan has no seiners in the eastern Pacific.

Commissioner Beckett of Canada agreed with Commissioner Howard's suggestion.

Commissioner Howard then introduced a resolution that "The Commission instruct the Director of Research to prepare future budgets in the same manner as the past, and that they be circulated to the Commissioners in advance of the meeting, and that the budgets contain more detail for individual items.

Furthermore that the Commission hold an executive session at their meetings to discuss the budget". The resolution was carried.

The Commission unanimously approved the 1982-83 budget.

AGENDA ITEM 9 - PLACE AND DATE OF NEXT MEETING

The Chairman noted that in the past the location of the IATTC's meeting has rotated among member nations and that in 1981 it would be the turn of Canada. However, Canada has notified him that they would be unable to host next year's meeting, and France had generously offered to be the host.

Commissioner Beckett of Canada noted that the meeting should be held at a time which would be convenient for officials who had to attend the meeting of ICCAT which is normally held in Madrid in November.

The Chairman suggested that the timing be left to the French Government and the Director of Investigations.

AGENDA ITEM 10 - ELECTION OF OFFICERS

Commissioner Beckett of Canada nominated Mr. Roudie of France as Chairman. Commissioner Rodriguez of Panama seconded the nomination, and Mr. Roudie was elected unanimously.

Commissioner Urroz of Nicaragua nominated Mr. Rodriguez of Panama as Secretary. Commissioner Howard of the United States seconded the nomination, and Mr. Rodriguez was elected unanimously.

AGENDA ITEM 11 - OTHER BUSINESS

Commissioner Howard presented a report on porpoise research carried out by the United States during the past year. He advised the Commission that at the time of agreeing on the means for implementing a quota, the United States would request an allocation of 1000 tons of yellowfin for porpoise research.

There being no further business under this Agenda Item, the Chairman returned to the recommendation for a yellowfin tuna quota.

Commissioner Miyamoto of Japan proposed the following resolution:

"Whereas no mechanism for a 1981 regulatory program for the conservation of yellowfin tuna in the eastern Pacific Ocean has yet been agreed to, and

Whereas such a yellowfin conservation program has been in effect every year from 1966 through 1979, and

Recognizing that there continues to be a need for a yellowfin conservation program in 1981 in order that the yellowfin resources may be maintained at a level that will insure continued high productivity in the future,

The Inter-American Tropical Tuna Commission therefore recommends to the high contracting parties that when a yellowfin conservation program is adopted

for 1981, there should be established an annual quota on the total catch of yellowfin tuna for the 1981 calendar year of 160,000 short tons from the CYRA as defined in the resolution adopted by the Commission on May 17, 1962, and

Further recommends that the Director of Investigations should be authorized to increase this limit by no more than two successive increments of 20,000 short tons each, if he concludes from examination of available data that such increases will offer no substantial danger to the stock, and

Finally recommends that all member states and other interested states work diligently to achieve the implementation of such a yellowfin conservation program for 1981."

The resolution was seconded by Commissioner Howard of the United States and by Commissioner Rodriguez of Panama.

Commissioner Beckett of Canada noted that the final paragraph left the question of the mechanism for implementing the quota undecided. He said that Canada would be agreeable to consider resolving the question by correspondence if the method of implementation did not differ too much from previous ones.

The resolution was carried unanimously.

Mr. Roberto Jimenez Ortiz, the observer from El Salvador, asked for the floor and noted that his presence at the meeting reflected his country's interest in the conservation of fish resources in the eastern Pacific.

There being no other business, the Chairman thanked the Commissioners and other delegates for their cooperation and assistance and recessed the meeting at 4:30 PM.

APPENDIX I

LIST OF ATTENDEES AT THE 38TH MEETING OF THE IATTC

CANADA

James S. Beckett
George Ernest Waring

James Harlick

FRANCE

Luis Roudie
Serge Garache
Jean-Claude Le Guen

JAPAN

Tatsuo Saito

Satoru Goto
Yuichiro Harada
Koji Imamura
Hideaki Kumazawa
Yoshinori Miyamoto

NICARAGUA

Jamil Urroz Escobar

Juan Gazol Salcedo
Juan Jacobo Espinoza

PANAMA

Carlos Icaza
Luis E. Rodriguez
Juan A. Stagg

UNITED STATES OF AMERICA

Wymberly Coerr
Jack Gorby
Gerald V. Howard
Robert Macdonald

Carmen Blondin
Gordon C. Broadhead
Peter Buchan
Morris D. Busby
Charles Cary
Michael Danaher
August J. Felando
Charles Finan
Paul P. Finerty
David A. Fitch
Alan Ford
Brian Hallman
Milton Kaufman
O. E. Kerns, Jr.
Frank Martins
John Mulligan
Anthony Nizetich
Wesley W. Parks
Barbara Rothschild
Gary Sakagawa
Lewis Wright
Richard E. Zellers

CHILE

Jaime Bazan

COSTA RICA

Rodrigo Sotela

CUBA

Humberto Falcon Valdespino
Bernardo Garcia Moreno
Luis Gonzalez Reyes

ECUADOR

Roberto Jimenez

EL SALVADOR

Roberto Jimenez Ortiz

GUATEMALA

Luis Fernando Martinez Avalos
Doroteo Monterroso

HOLLAND

Harold Henriquez

HONDURAS

Ricardo Midence

MEXICO

Alberto Szekely

NEW ZEALAND

Colin R. Keating

PERU

Alfredo Valencia

REPUBLIC OF KOREA

Han Mo Kim

SPAIN

Javier Elorza
Jose Pedro Sebastian de Erice
Gonzalo Vasquez

TAIWAN

Ruen-len Tsai
P. W. Yuan

VENEZUELA

Oscar Pietri

INTERNATIONAL ORGANIZATIONS

INTERNATIONAL WHALING COMMISSION

William Perrin

ORGANIZACION DE LOS ESTADOS AMERICANOS - OEA

Stephanie Albertson
William Bickerdyke
Carlos Gallego
Nicolas Rivero

COMISION PERMANENTE DEL PACIFICO SUR - CPPS

Juan Miguel Bakula

INTER-AMERICAN TROPICAL TUNA COMMISSION

James Joseph
Robin Allen
Regina Newman

APPENDIX II

In 1976 the Commission adopted certain objectives concerning problems arising from the purse seine fishery for tunas associated with various species of dolphins in the eastern Pacific.

These objectives were (1) to strive to maintain a high level of tuna production, and (2) to maintain dolphin stocks at or above levels that assure their survival in perpetuity, (3) with every reasonable effort being made to avoid needless or careless killing of dolphins.

Based on the research of various organizations, the Commission's own research, and the practical experience of the international fleet, dolphin mortality is significantly reduced by adopting certain fishing techniques and gear designs which facilitate the release of dolphin schools upon which purse seine sets have been made.

In keeping with our responsibilities, the staff recommends to the Commissioners that they consider adopting the following measures which are designed to reduce dolphin mortality:

1. All purse seiners execute the backdown procedure when dolphins are captured in the net.

2. All purse seiners that fish for tunas associated with dolphins have dolphin safety panels of mesh size no larger than 1 1/4 inch installed in their nets. The panels should be sufficiently long and deep so that the entire periphery of the backdown channel consists of fine mesh. Hand hold openings between the small mesh and the corkline should be laced closed with twine.

3. All purse seiners that fish for tunas associated with dolphins have at least three operable speedboats equipped with stern towing bridles and towlines to prevent net collapses. When dolphins are within the net, at least one such equipped speedboat should remain in the water, manned, throughout the set until after backdown.

4. All purse seiners deploy a manned life raft during the backdown procedure for dolphin rescue. The occupant should be equipped with a face mask. The captain should restrict the use of the raft when conditions endanger the occupant.

5. During backdown at least two crew members should be engaged in hand rescue of dolphins, one of these being the raft occupant and the others in speedboats.

6. No sharp or pointed instruments be used for removing live dolphins from the net or off the deck of a purse seiner.

7. No live dolphins be sacked up, or brailed aboard a purse seiner unless all other rescue attempts fail.

8. When backdown must be carried out in the dark, a fixed floodlight should be directed into the water next to the vessel and a hand held spotlight should be used intermittently to check on the dolphin release progress in the release area.

APPENDIX III

Annual yellowfin catches taken within 200 miles of coastal nations and beyond 200 miles in the eastern Pacific by the entire international fleet, 1975-79 (short tons).

	YELLOWFIN							
Catch within 200 miles of --	1975	1976	1977	1978	1979	Average catch 1975-79	Proportion of average total eastern Pacific catch	Proportion of average total CYRA catch
Chile	0	0	0	0	0	0	.0000	.0000
Colombia	4,852	2,624	8,858	15,452	7,714	7,900	.0356	.0410
Costa Rica	9,538	21,365	15,805	16,546	9,912	14,633	.0660	.0760
Ecuador	38,975	26,151	16,398	6,679	11,301	19,901	.0897	.1034
El Salvador	1,212	3,314	2,450	2,413	2,043	2,286	.0103	.0119
France (Clipperton)	13,854	9,120	8,801	2,557	6,220	8,110	.0366	.0421
Guatemala	10,178	8,032	4,435	9,880	3,831	7,271	.0328	.0378
Mexico	45,123	38,300	38,042	51,937	71,415	48,963	.2207	.2544
Nicaragua	279	464	80	2,727	401	790	.0036	.0041
Panama	1,982	5,321	8,977	6,985	1,569	4,967	.0224	.0258
Peru	4,162	13,721	9,112	7,663	9,294	8,790	.0396	.0457
U.S.A.	0	8	2	59	252	64	.0003	.0003
Total catch within 200 miles	130,155	128,420	112,960	122,898	123,952	123,677	.5575	.6426
CYRA catch beyond 200 miles	47,199	77,122	90,618	59,456	69,463	68,772	.3100	.3574
Total CYRA catch	177,354	205,542	203,578	182,354	193,415	192,449	.8675	1.0000
Catch outside of CYRA and east of 150°W	47,203	51,839	16,946	15,812	15,192	29,398	.1325	
Total eastern Pacific Ocean catch	224,557	257,381	220,524	198,166	208,607	221,847	1.0000	

Note: Sums of individual catches and proportions may not agree exactly with totals shown because of rounding.

Annual skipjack catches taken within 200 miles of coastal nations and beyond 200 miles in the eastern Pacific by the entire international fleet, 1975-79 (short tons).

SKIPJACK

Catch within 200 miles of --	1975	1976	1977	1978	1979	Average catch 1975-79	Proportion of average total eastern Pacific catch	Proportion of average total CYRA catch
Chile	0	0	9	0	0	2	.00001	.00001
Colombia	8,605	5,768	11,875	49,669	38,200	22,823	.1605	.1635
Costa Rica	17,734	15,390	4,395	20,763	21,626	15,982	.1124	.1145
Ecuador	57,543	12,174	12,342	5,006	7,250	18,863	.1327	.1351
El Salvador	1,673	4,425	1,184	1,076	317	1,735	.0122	.0124
France (Clipperton)	454	2,555	2,363	618	1,157	1,429	.0101	.0102
Guatemala	1,747	15,286	2,278	8,593	2,573	6,095	.0429	.0437
Mexico	18,553	24,384	13,541	25,472	27,857	21,961	.1545	.1573
Nicaragua	568	890	29	1,233	164	577	.0041	.0041
Panama	2,239	3,511	4,267	14,494	6,413	6,185	.0435	.0443
Peru	6,696	12,785	9,949	5,691	5,263	8,077	.0568	.0578
U.S.A.	0	86	7	271	450	163	.0011	.0012
Total catch within 200 miles	115,812	97,254	62,239	132,886	111,270	103,892	.7308	.7441
CYRA catch beyond 200 miles	18,520	44,666	29,870	54,699	30,928	35,737	.2514	.2559
Total CYRA catch	134,332	141,920	92,109	187,585	142,198	139,629	.9822	1.0000
Catch outside of CYRA and east of 150°W	2,086	1,611	2,742	3,142	3,098	2,536	.0178	
Total eastern Pacific Ocean catch	136,418	143,531	94,851	190,727	145,296	142,165	1.0000	

Note: Sums of individual catches and proportions may not agree exactly with totals shown because of rounding.

Annual combined yellowfin and skipjack catches taken within 200 miles of coastal nations and beyond 200 miles in the eastern Pacific by the entire international fleet, 1975-79 (short tons).

YELLOWFIN AND SKIPJACK COMBINED

Catch within 200 miles of --	1975	1976	1977	1978	1979	Average catch 1975-79	Proportion of average total eastern Pacific catch	Proportion of average total CYRA catch
Chile	0	0	9	0	0	2	.00001	.00001
Colombia	13,457	8,392	20,733	65,121	45,914	30,723	.0844	.0925
Costa Rica	27,272	36,755	20,200	37,309	31,538	30,615	.0841	.0922
Ecuador	96,518	38,325	28,740	11,685	18,551	38,764	.1065	.1167
El Salvador	2,885	7,739	3,634	3,489	2,360	4,021	.0110	.0121
France (Clipperton)	14,308	11,675	11,164	3,175	7,377	9,540	.0262	.0287
Guatemala	11,925	23,318	6,713	18,473	6,404	13,367	.0367	.0403
Mexico	63,676	62,684	51,583	77,409	99,272	70,925	.1948	.2136
Nicaragua	847	1,354	109	3,960	565	1,367	.0038	.0041
Panama	4,221	8,832	13,244	21,479	7,982	11,152	.0306	.0336
Peru	10,858	26,506	19,061	13,354	14,557	16,867	.0463	.0508
U.S.A.	0	94	9	330	702	227	.0006	.0007
Total catch within 200 miles	245,967	225,674	175,199	255,784	235,222	227,569	.6252	.6853
CYRA catch beyond 200 miles	65,719	121,788	120,488	114,155	100,391	104,508	.2871	.3147
Total CYRA catch	311,686	347,462	295,687	369,939	335,613	332,077	.9123	1.0000
Catch outside of CYRA and east of 150°W	49,289	53,450	19,688	18,954	18,290	31,934	.0877	
Total eastern Pacific Ocean catch	360,975	400,912	315,375	388,893	353,903	364,012	1.0000	

Note: Sums of individual catches and proportions may not agree exactly with totals shown because of rounding.

APPENDIX III (Continued)

Estimated catch (short tons) of yellowfin and skipjack within 200 miles of the coasts and islands of the eastern Pacific Ocean, as of 22 October 1980

Zone	Yellowfin	% CYRA	Skipjack	% CYRA	Yellowfin and Skipjack	% CYRA
Within 200 miles						
Chile	0		0		0	
Colombia	392	0.3	2581	2.2	2973	1.2
Costa Rica	4723	3.6	7404	6.3	12127	4.9
Ecuador	5262	4.0	2983	2.5	8245	3.3
El Salvador	710	0.5	565	0.5	1275	0.5
France (Clipperton Is.)	5171	4.0	8695	7.4	13866	5.6
Guatemala	711	0.5	109	0.1	820	0.3
Mexico	56524	43.2	52179	44.3	108703	43.7
Nicaragua	191	0.2	45	0.0	236	0.1
Panama	697	0.5	1531	1.3	2228	0.9
Peru	3097	2.4	608	0.5	3705	1.5
U.S.A.	60	0.0	0		60	0.0
Total within 200 miles:	77,539	59.3	76,700	65.1	154,239	62.1
Within CYRA, Beyond 200':	53240	40.7	41050	34.9	94290	37.9
Total CYRA	130,779		117,750		248,529	
West of CYRA, east of 150°W:	21,440		13,895		35,335	
Entire eastern Pacific	152,219		131,645		283,864	