

INTER-AMERICAN TROPICAL TUNA COMMISSION

MINUTES OF THE 58TH MEETING

June 3-4, 1997

San José, Costa Rica

The 58th meeting of the Inter-American Tropical Tuna Commission (IATTC) was held in the Casa de España in San José, Costa Rica, on June 3 and 4, 1997.

1. Opening of the Meeting

Dr. Jorge Campos M., of Costa Rica, was elected Chairman, and he introduced the Deputy Minister for Foreign Trade, Lic. Rodrigo Carreras, who made a speech welcoming the attendees to Costa Rica (Appendix 1). The Chairman then called for introductions. Representatives of the governments of Costa Rica, France, Japan, Panama, the United States, and Venezuela introduced themselves, as did observers from Colombia, Ecuador, El Salvador, Mexico, the Republic of China, Spain, the Commission for the Conservation of Southern Bluefin Tuna, the International Whaling Commission, the Fundación para la Defensa de la Naturaleza (FUDENA), Greenpeace International, and the Humane Society International. The attendees are listed in Appendix 2.

2. Adoption of agenda

The provisional agenda was adopted as presented (Appendix 3).

3. Review of current tuna research

The Chairman turned the floor over to Dr. James Joseph, Director of the IATTC, who introduced Dr. Robin Allen, Assistant Director of the Commission. Dr. Allen described the research carried out by the IATTC during its half-century of existence, and summarized the principal projects currently being undertaken. He pointed out that all the IATTC staff's studies depended on data from the fishery, and described how the Commission's seven field offices contributed to this end. He gave a brief overview of the work carried out at IATTC headquarters in La Jolla by IATTC staff, both alone and in collaboration with other entities in many nations.. He emphasized that the main focus of research was population dynamics, essential for making management recommendations, and described the basic biological research into yellowfin, skipjack, and bigeye tunas, as well as swordfish. Information on the reproductive biology and early life history of tunas is necessary for studies of recruitment, and determining stock structure requires information on rates of mixing and interaction among stocks, obtained from tagging studies, analyses of catch and effort, and biochemical and genetic studies, as well as the crucial question of natural mortality rates. He described the ground-breaking research being undertaken at the IATTC's laboratory at Achotines, Panama, and the recent expansion of the facilities as a result of a cooperative research project with Japan and Panama, which had resulted in the first successful breeding of yellowfin tuna in captivity.

4. and 5. The 1996 fishing year and Status of tuna stocks

Dr. Joseph said that 1996 had been a very good year in the fishery, with record catches of all the principal market species, and a record total catch of 419 thousand tons. Dr. Joseph briefly summarized the history of the fishery, and the changes brought about by environmental factors such as the 1982-83 El Niño and the conservation programs for yellowfin tuna and dolphins. The fishery had changed in the last few years, with the development of a large offshore fishing area south of the equator and a dramatic increase in the catch of bigeye tuna by the surface fishery, from 5,000 tons in 1993 to over 50,000 tons in 1996.

Dr. Joseph explained and discussed the various indices of abundance calculated by the IATTC staff and used as the basis for conservation recommendations. He said that currently the yellowfin stock in the eastern Pacific was capable of supporting catches of some 260 to 300 thousand tons, but that this could change rapidly. He con-

trasted the possible results of “dolphin-safe” fishing and fishing on dolphins, and pointed out that the large quantities of small fish caught by the former mode of fishing could affect the future productivity of the fishery. The average size of the yellowfin in the catch had fallen in 1995, and this might possibly be linked to the expansion of the new southern fishing area.

The IATTC staff recommended a catch quota for yellowfin for 1997 similar to that of 1996, 220 thousand metric tons, with three increments of 15 thousand tons each. Dr. Joseph pointed out that it was unlikely that this level would be exceeded, since the fleet and the tuna populations were currently in balance. However, he said that the fleet was growing, a trend which was continuing in 1997, and warned that this should be monitored in order to avoid excessive effort. With the present level of about 100 boats and 20 thousand days of effort, and with the same size composition of the catch, the fishery should stay healthy, but that an increase to the 35 thousand days of effort seen in the late 1970s and early 1980s and/or a shift to catching smaller fish would in all likelihood lead to problems.

Dr. Joseph then turned to bigeye tuna. He noted that although the species accounts for only about 11% of world tuna catches, its economic importance is great, since its physical characteristics make it much sought after for the *sashimi* market. Traditionally bigeye was caught primarily with longlines, but in recent years the purse-seine catch in the EPO had increased tenfold, and was now greater than the longline catch, which had fallen considerably. The purse-seine catches consisted mainly of small fish, which in 1996 averaged about 9 kg, compared to 59 kg for longline-caught fish, and the effect of this on the stock had given rise to concern. The economic impact of this change was also considerable, since the longline-caught fish commanded prices 8 or 10 times higher than the surface-caught fish. Since much less is known about the biology and population structure of bigeye than of yellowfin or skipjack, the IATTC staff had been asked to study the situation and the species in greater detail than in the past.

Dr. Joseph then presented the results of staff’s investigations. He stressed that these were preliminary, and that several assumptions had had to be made, most importantly about the natural mortality rate of bigeye. However, based on these results, extrapolations had been made for the 1997-2006 period about the potential effects of different combinations of catch levels in both the purse-seine and longline fisheries with three rates of natural mortality, 0.4, 0.6 and 0.8. All the analyses indicated that increasing the purse-seine catch reduced the longline catch, and the staff was concerned that the stock might be overfished. New instruments, such as the UN Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks, the Rio Summit, and the FAO Code of Conduct on Responsible Fishing, all stressed the cautionary approach, based on the best available data, rather than waiting until more comprehensive and definitive information was available, by which time it might be too late to achieve the desired ends. Dr. Joseph said that in his opinion ways of limiting the expansion of the fishery should be considered, but that the issue was complicated because the fishery caught multiple species, and a way would have to be found of controlling the bigeye catch without constraining the catch of skipjack, which could support higher levels of catch. He said that the matter was urgent, and suggested that a working group of experts from various nations be formed within the following month or two to study this issue and present its report to the next IATTC meeting. It should meet as often as possible, and consider such management options as limiting fishing areas, seasons, or the use of certain gears, especially Fish-Aggregating Devices (FADs), and that in the meantime the staff would continue their studies and make the results available to the group.

The representative of Mexico, referring to the question of the multi-species fishery, noted that the fishery also discarded large quantities of small yellowfin, and asked about the natural mortality rate of that species and whether the potential threat of overfishing resulting from large catches of juvenile fish applied to yellowfin as well as to bigeye. Dr. Joseph said that there was also uncertainty about the rate for yellowfin, but 0.8 was generally used, and that with that rate and the current size composition of the catch the yield per recruit would indeed fall.

The representative of Japan agreed that further study of natural mortality rates was necessary, but noted that, whatever the rate, the current increase in catches of bigeye in sets on FADs was unwise, since it created the risk of reducing the total catch, not just the longline catch. He endorsed the suggestion of a working group, and suggested that in order not to harm the fishermen who depended on the FAD fishery, the total surface bigeye catch should be limited to the level reached in 1996 and not be allowed to go higher.

The delegate from Costa Rica expressed his concern about the fragility of the resource, especially if vessels faced with falling catches in the Atlantic and Indian Oceans decided to transfer to the currently healthy fishery in the EPO.

The U.S. delegate cautioned against taking action on the basis of preliminary results, and noted that changes in yellowfin abundance sometimes reflected environmental changes, and that this might also be true for bigeye. He also pointed out that not all nations involved were members of the IATTC, and that any measures taken might have no effect on these countries' activities. He also noted that the fishery involved not only multiple species but also multiple markets, and that one fishery's discard was another's catch; the level of discards should be monitored, but the trade-offs should be analyzed before taking action. He supported the proposal for a working group, but said that any interim measures would be premature.

Mexico also supported the idea of a working group.

In response to the U.S. statement, the delegate of Japan said that action was not premature; he agreed that non-member countries could not be subject to any measures the IATTC took, but pointed out that the IATTC could and should take the lead, and by so doing encourage other nations, who might in turn become members. He also noted that the majority of the juveniles caught had no commercial value in any market, and were dumped for that reason. He repeated Japan's proposal for the FAD fishery, no reduction but no increase, which did not penalize the fishery, but accepted that if the consensus was against it Japan would not insist.

Dr. Joseph described the concerns about the question of access to the fishery, and mentioned rumors about other fleets transferring to the EPO. He commented that the fleet was currently close to its ideal size, and that if it grew this could be a matter for concern. He agreed with the United States that environmental changes did affect apparent abundance, and that the IATTC staff would examine this as best it could. He said that yellowfin recruitment was very variable, and was currently very high; bigeye recruitment had increased in 1981-82, but this had not been sustained. He said he was optimistic regarding non-member nations, that they would all want to do what was necessary to conserve the resource; the intergovernmental forum had been used in the 1970s for yellowfin conservation measures, and perhaps something similar could be done now for bigeye, although he hoped that eventually all the nations involved would become members of the IATTC.

The Chairman summarized the debate, and the meeting agreed to the U.S. proposal that the IATTC staff draft terms of reference for the working group on bigeye for consideration later in the meeting.

6. Review of tuna-dolphin research and extension programs

Dr. Martín Hall, head of the IATTC Tuna-Dolphin Program, presented this agenda item. He said that in 1996 the dolphin mortality in the fishery had once again fallen, to 2,547 animals, and went on to describe the by-catches arising from the three different types of purse-seine sets, the mortality-per-set ratios, the staff's calculations of the relative abundance of the various dolphin stocks involved in the fishery, and the sources of the data used, mainly the IATTC observer program. He noted that the calculations of dolphin abundance were made difficult by the "disappearance" of juvenile dolphins from the time they left their parent herd to the time they rejoined another herd as adults five to ten years later. He said that current estimating procedures incorporated environmental information, but that this had not changed the overall picture. The stocks appeared healthy, and mortality levels caused by the fishery were not only below the Potential Biological Removal (PBR) rate, defined as 0.1% of a reduced estimate of the abundance of a stock, but for all but two stocks they were below the Zero Mortality Rate Goal (ZMRG), which is 10% of the PBR rate.

Next, Mr. Dave Bratten, also of the Tuna-Dolphin Program, described the causes of dolphin mortality and the techniques and approaches used to reduce it. The factors which most affected mortality level are the species of dolphin involved, the area, herd size, the amount of tuna caught, the oceanic conditions, the time of day, and the weather. The factors which most helped to reduce the mortality were the backdown maneuver, hand rescue, use of a floodlight after dark, avoiding high-risk conditions, and maintaining the motivation of the crew. The boatowners' contribution was also important, by maintaining the vessel in good working order and ensuring that it had all the

recommended dolphin safety gear. Currently 86% of sets resulted in no mortality. The IATTC program organized mortality reduction workshops for fishermen, in which they learnt the three main lines of defense against dolphin mortality: ensuring that all the equipment was present and working before leaving port, avoiding high-risk situations, and always performing the backdown maneuver. Mr. Bratten also described some research and development projects being undertaken to reduce dolphin mortality further.

Dr. Hall went into detail about bycatches in purse-seine sets, and specifically about bigeye. In 1996 total discards of all species of tunas was about 45 thousand tons, a 50% increase over 1995 and about double those of 1993 and 1994. Almost all discarded bigeye were caught in sets on floating objects, which were also responsible for the great majority of the bycatch of most species except dolphins. He described experiments in Norway with a sorting grid which would allow the smaller fish to escape while retaining the larger ones, and said that the ideal would be for the fishermen to be able to select what they caught and what they released, but that this was not currently possible.

The Chairman suggested that in future this agenda item should cover not just tuna-dolphin but concern itself with bycatch generally.

Mexico pointed out that the table shown by Dr. Hall showed the effect on dolphin mortality of the “dolphin-safe” policy, but not of the La Jolla Agreement, and asked how much food the 45 thousand discarded tons potentially represented. Dr. Hall answered that dolphin mortality had already fallen by 60% before the introduction of the “dolphin-safe” policy, and that in future the table would reflect the impact of the Agreement. He said that the potential production from the discarded tuna would depend on how many of the fish survived and how large they grew before being caught; in the case of bigeye, the discards represented about one-eighth of the total catch of the species in weight, so the loss to both purse-seine and longline fisheries was almost certainly significant.

Ecuador expressed its interest in collaborative studies, especially in reference to marine turtles, and asked about the mortality levels of these species. Dr. Hall welcomed this offer, and said that the low numbers of turtles caught might only reflect low abundance, and that its significance could not be determined without an understanding of the ecosystem as a whole; once that was understood, the importance of individual components, and changes in their abundance, could be evaluated.

The United States expressed its pleasure at the low level of mortality, and endorsed the proposal to change the agenda item to the general issue of bycatch.

Panama pointed out that at every IATTC meeting in recent years the staff had presented information on the high discards of other species, particularly in sets on schoolfish and floating objects. Panama was especially concerned because of the potential detrimental impact of these bycatches on artisanal fisheries, and asked whether such impacts were in fact occurring. Dr. Hall said this was an important question, but hard to answer because very little was known about the population dynamics or biology of the many species affected. He pointed out that the fishermen had reduced dolphin mortality by 98% without major changes in the fishery or in fishing technology, and it might be possible to do the same for other bycatch species.

7. Review of International Dolphin Conservation Program

Dr. Joseph briefly summarized the history of dolphin mortality in the purse-seine fishery, which since its inception in the 1960s had changed from annual mortality levels of over 200,000 dolphins caused by a fleet in which over 90% of the vessels flew the U.S. flag to an annual mortality of 2,500 animals caused by a fleet made up of vessels of several nations. The International Dolphin Conservation Program was created by the La Jolla Agreement in 1992, and since its inception had proved highly successful in reducing mortality to levels which were biologically insignificant for the dolphin populations of the EPO. At current levels of mortality, the future growth of the dolphin populations should be independent of the fishery. In 1996 the dolphin mortality limit (DML) for individual vessels was 94, but the actual average mortality per vessel was only 44, and the average mortality per set 0.35. Dr. Joseph compared this incidental mortality with that of other marine species, including juvenile tunas, in sets on floating objects and schoolfish, and commented on the potential ecological cost of these discarded bycatch-

es. He described the yield per recruit as a function of size and average weight of the fish, and commented that the effect on recruitment to the population of catching large numbers of immature fish was unknown. Concern about this situation and about the ecological costs of not fishing on dolphins had led the nations involved in the fishery to formulate a management scheme which would avoid these problems. The result was the Declaration of Panama, signed by twelve nations in October 1995, which would, once implemented, formalize and strengthen the provisions of the La Jolla Agreement.

8. Recommendations and resolutions for 1997

Dr. Joseph presented the draft resolutions on bigeye and yellowfin tunas prepared by the staff. The United States said that the resolution on bigeye met most of the concerns expressed by the delegations regarding overfishing, as well as his delegation's concerns about how to proceed, and enabled the IATTC to play an active role in conserving the species. The U.S. delegation endorsed the resolution and recommended its adoption. The delegate from Japan thanked the staff for its work in drafting the resolutions, and likewise expressed its support.

Both resolutions were approved as drafted (Appendices 4 and 5).

9. Recommended research programs and budget for FY 1998-1999

Dr. Allen presented the proposed budget for the 1998-1999 fiscal year, which was approved as presented. It was suggested that in future simultaneous interpretation should be provided at meetings of the International Review Panel, and the staff agreed to look into the possibility of including this in future budgets.

10. Place and date of next meeting

It was agreed that the next meeting of the IATTC would be held in La Jolla, USA, in June 1998.

11. Election of officers

Panama proposed that the United States should provide the Chairman for the next meeting, and the proposal was approved unanimously.

12. Other business

There was some discussion about a proposed working group on bycatch. It was decided that a working group should be established to examine the question of bycatches of all species in the purse-seine fishery in the EPO, and look for ways of reducing it. The staff was instructed to prepare a document outlining the group's terms of reference and some proposals for consideration, and distribute it among the governments. The staff would also designate members of the working group.

The observer from FUDENA expressed interest in taking part in the working group on bycatch.

The Japanese delegate said he was also acting as observer on behalf of the Commission for the Conservation of Southern Bluefin Tuna, and distributed a report on that Commission's objectives and work (Appendix 6).

13. Adjournment

The Chairman thanked all the participants for their labors, and in particular Mr. Jaime Basadre Oreamuno, of Costa Rica, who had been responsible for organizing the meeting, and introduced Dr. Ricardo Garrón F., Minister of Agriculture, who, after thanking the attendees for all their hard work, congratulating them on their achievements, and stressing the importance of implementing the Declaration of Panama (Appendix 7), declared the meeting closed.