

INTERNATIONAL DOLPHIN CONSERVATION PROGRAM

**SCIENTIFIC ADVISORY BOARD**

**2<sup>ND</sup> MEETING**

LANZAROTE (SPAIN)

19 JUNE 2005

**MINUTES OF THE MEETING**

**AGENDA**

	Documents
1. Opening of the meeting	
2. Adoption of the agenda	
3. Consideration of research regarding:	
a. modification of current purse-seine technology to reduce dolphin mortality	
b. alternative means of capturing large yellowfin tuna	<a href="#">SAB-2-03b</a>
4. Dolphin life-history sampling proposal	<a href="#">SAB-2-04</a>
5. Workshop on calculation standard for Minimum Estimated Abundance for each stock of dolphins	
6. 2003 abundance estimates	
7. Proposed coastal spotted dolphin survey	
8. a. Technology for monitoring compliance of Class-5 vessels	<a href="#">SAB-2-08</a>
b. Tagging dolphins	<a href="#">SAB-2-08a</a>
9. Review of the SAB work plan	<a href="#">SAB-2-09</a>
10. Other business	
a. Bycatch studies	
11. Place and date of next meeting	
12. Adjournment	

**APPENDICES**

1. List of attendees

The second meeting of the Scientific Advisory Board (SAB) was held in Lanzarote, Spain, on 19 June 2005. The attendees are listed in Appendix 1.

**1. Opening of the meeting**

Dr. Robin Allen, Director of the IATTC, welcomed the participants and explained the responsibilities of the SAB. The main objectives of the SAB are to provide direction for modifying current fishing methods to reduce dolphin mortality, finding alternative means of fishing, and identifying possibilities for research on other topics.

**2. Adoption of the agenda**

The group added, under agenda item 10, *Other business*, a discussion of the SAB involvement with bycatch produced in the fishery on fish-aggregating devices (FADs). The agenda was then adopted as amended.

### **3. a. Consideration of research on modification of current purse-seine technology to reduce dolphin mortality**

Dr. Dreyfus presented an analysis of data compiled during several cruises, involving 192 sets, in which experimental patches, called 'alergones', were used in the net of a Mexican purse seiner. These patches are designed to keep the backdown channel open and help sink the apex of the channel. It was noted that the voluntary use of *alergones* had implications for the experimental design of the trials, and it was agreed that, where possible, the Secretariat would participate in the analysis of results. The importance of the SAB supporting this work was stressed, and it was agreed that the Board should be updated on progress.

### **3. b. Consideration of research on alternative means of capturing large yellowfin tuna**

Dr. Reilly presented [Document SAB-2-03b](#), which summarized the potential use of LIDAR (Light Detection And Ranging) to detect tunas not associated with dolphins. Since 1992, the U.S. National Marine Fisheries Service (NMFS) has been exploring LIDAR's potential use, but had previously concluded that the equipment was too large and its capabilities not developed enough to be of practical use. At its last meeting in June 2004, the SAB requested that the NMFS update its review of LIDAR. Current equipment is lighter, smaller and more reliable, and it was the sense of researchers in this field that these characteristics may make this technology more suitable for use in regular fishing operations. Dr. Reilly also noted other potential uses, such as for abundance estimation and studying the association between tunas and FADs.

### **4. Dolphin life-history sampling proposal**

Dr. Hall reviewed [Document SAB-2-04](#), which describes the biological sampling scheme of dolphins accidentally killed in the fishery to answer questions about trends in reproductive rates and abundance. The issue of shipping samples was discussed; transportation of whole carcasses would be required in the initial stages of the program for training purposes, but thereafter it would mainly be only certain tissue samples. CITES permits would be needed for international shipping.

After a brief discussion on the subject of the budget which needs to be obtained, it was decided to recommend to the Meeting of the Parties that this project be approved. The Secretariat was asked to prepare an implementation paper in consultation with the SAB.

### **5. Workshop on calculation standard for Minimum Estimated Abundance for each stock of dolphins**

Dr. Allen discussed the workshop on the minimum estimated abundance ( $N_{min}$ ) of dolphin stocks that will be held in August in La Jolla. The workshop will provide the SAB recommendations for updating and revising new estimates of  $N_{min}$  so that the SAB can decide whether to recommend to the Parties updated Stock Mortality Limits (SMLs) based on new estimates of  $N_{min}$ .

### **6. 2003 abundance estimates**

Dr. Reilly discussed the NMFS report on the subject. It was suggested that estimates for all dolphin and whale species be included in subsequent papers to compare trends in those stocks targeted by the fishery with those that are not.

### **7. Proposed coastal spotted dolphin survey**

Dr. Reilly stated that the NMFS had time available for a research vessel during 2007 to conduct a survey on spotted coastal dolphins. He indicated that the proposal was going to be presented within the framework of the MexUS-Pacifico fisheries cooperation program, and that NMFS had offered Mexico the opportunity to take the lead on the research project. Dr. Compeán indicated that Mexico was pleased to do so and was seeking participation of other countries as well. He added that the proposal would be formally presented at the next MexUS-Pacifico meeting, and would likely involve the participation of IATTC scientific staff.

### **8. a. Technology for monitoring compliance of Class-5 vessels**

Dr. Allen presented [Document SAB-2-08](#), which summarized information provided by a representative of a company that specializes in fisheries monitoring, that could be useful to assess dolphin mortality that may be caused by Class-5 purse-seine vessels (well volume 320-425 m<sup>3</sup>), which are not required to carry observers, but are capable of fishing for tunas associated with dolphins.

It was questioned whether this subject was more of a compliance issue than a scientific issue for the SAB. It was suggested that the SAB focus on an evaluation of the operation of the technology and its usefulness onboard class-5 purse seiners in the light of the scientific data required. The group also discussed whether all dolphin mortality that might occur on these vessels would be detected, and whether estimating catch of tuna species and bycatch of other species would be possible with these methods.

### **8. b. Tagging dolphins**

Dr. Hall presented [Document SAB-2-08a](#), which described a proposal to be supported by the SAB to promote the use of passively induced transponders (PIT tags) to tag dolphins associated with the fisheries for tunas in the EPO. The document describes an array of research possibilities that derive from the use of these tags, including interaction of dolphins with the purse-seine tuna fishery, herd fidelity, home range and seasonal migration, survival rates, abundance trends and mark-recapture index, among others.

The SAB supported such research in principle, and noted that the study would likely be long-term due to its complexity, and would require the cooperation of the international fleet to incorporate detectors in the nets of all vessels fishing on dolphins.

## **9. Review of the SAB work plan**

Dr. Allen presented [Document SAB-2-09](#) which described the current work plan of the SAB.

1. **Cow-calf separation:** Dr. Reilly announced that the NMFS had hired a researcher in Hawaii that was looking at the physics of swimming associated with different sizes of dolphins. It was suggested that it was necessary to do more observations in the field to determine if cow-calf separation in fact occurs, and if so, at what stage of the chase it occurs and whether there is a subsequent reunification.
2. **Stress effects:** discussed together with life history sampling under agenda item 4 above.
3. **Current abundance estimates:** The SAB decided to review the currently available estimates of abundance for dolphin stocks after obtaining the recommendations of the  $N_{min}$  workshop to be held in August 2005.
4. **Ecosystem effects:** Dr. Reilly announced that NMFS, among other steps, had contracted the services of Dr. George Watters, formerly of the IATTC scientific staff, to develop mathematical models. He indicated that at this point they had no information that could be reported yet, but that Dr. Watters soon would be doing some work on this issue.
5. **Mortality estimates:** Dr. Allen indicated that the IATTC staff had not been able to obtain funds for these analyses. After a brief discussion, there was an agreement to seek the funds and for the staff to do these estimates. Dr. Compean indicated that several options should be explored, including the closure of potentially high-mortality areas.
6. **Life history studies:** A sampling proposal was agreed.
7. **Stock assessment of coastal spotted dolphins:** discussed under agenda item 7 above.
8. **Population modeling:** Hoyle and Maunder's recent publication on offshore spotted dolphins was noted. Dr. Reilly indicated that Dr. Watters's addition to the NMFS staff would have an impact because of his expertise on the subject. He also indicated that Dr. Watters had published a paper on the subject, and that this should be examined as part of the work on this subject. It was suggested that the IATTC website include a link to the papers in an area of the website related to the SAB.

9. **Gear technology and fishing techniques to improve dolphin release:** The Stephenson *boleadoras* experiment (9b) was dropped. It was noted that the technology for net profiling (9d) was readily available. Dr. Compean indicated that Mexico would soon develop some of these ideas with its industry and would report the results to the SAB.
10. **Capture of mature tuna not in association with dolphins:** Research on LIDAR was updated under Agenda item 8 above.

**10. a. Other business**

Mr. Delgado stated that, under the terms of the AIDCP, this body had a clear mandate of advising on research conducted to reduce mortality of dolphins, but Venezuela believed that there was the need to also consider the issue of bycatch associated with the fishery for tunas with FADs in the EPO. Dr. Compeán agreed that the subject would be within the scope of this group, but Dr. Ariz pointed out that the IATTC had created a working group on the subject, and taking on this matter within the SAB could be a duplication of effort. If the SAB were to become involved in this area, it would need specific research proposals to evaluate. He noted that the Instituto Oceanográfico Español was conducting some experiments on FAD design to reduce entanglement of sea turtles in tuna-fishing operations in the Indian Ocean. Ing. Torres indicated that his government would offer the services of the Instituto Nacional de Pesca of Ecuador to assist the IATTC staff on such research. Ms. Young noted that the SAB should recognize that there are concerns regarding bycatch and the use of FADs in the fishery, and that the Meeting of the Parties should seek to coordinate with the IATTC to evaluate a research plan.

It was agreed that the Secretariat could communicate with the SAB regarding any relevant research proposals on FAD bycatch.

**11. Place and date of next meeting**

The next meeting of the SAB will take place in October 2005 in La Jolla.

**12. Adjournment**

The meeting was adjourned on June 19, 2005.

**Appendix 1.**

**INTERNATIONAL DOLPHIN CONSERVATION PROGRAM  
PROGRAMA INTERNACIONAL PARA LA CONSERVACIÓN DE LOS DELFINES**

**SCIENTIFIC ADVISORY BOARD - CONSEJO CIENTÍFICO ASESOR**

**2<sup>ND</sup> MEETING – 2<sup>a</sup> REUNIÓN**

**19 JUN 2005**

**Lanzarote (España)**

**ATTENDEES - ASISTENTES**

**JAVIER ARÍZ TELLERÍA**

Instituto Español de Oceanografía

**GUILLERMO COMPEÁN**

**MICHEL DREYFUS**

Instituto Nacional de la Pesca de Mexico

**ALVIN DELGADO**

Programa Nacional de Observadores de Venezuela

**RAMÓN MONTAÑO**

Asociación de Atuneros del Ecuador

**STEVE REILLY**

National Marine Fisheries Service, U.S.

**NINA YOUNG**

The Ocean Conservancy

**OBSERVERS - OBSERVADORES**

**ENRIQUE DE CÁRDENAS**

Secretaría General de Pesca de España

**LUIS FLEISCHER**

Instituto Nacional de la Pesca

**JESSICA KONDEL**

**JEREMY RUSIN**

**WILLIAM FOX**

National Marine Fisheries Service

**CRISTOBAL MARISCAL**

**LUIS TORRES**

Ministerio de Comercio Exterior, Industrialización,

Pesca y Competitividad

**KELLY MALSCH**

Defenders of Wildlife

**SECRETARIAT- SECRETARÍA**

**ROBIN ALLEN, Director**

**ERNESTO ALTAMIRANO**

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**MARTIN HALL**

**BRIAN HALLMAN**

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