INTER-AMERICAN TROPICAL TUNA COMMISSION
WORKING GROUP ON ECOSYSTEM AND BYCATCH
4th MEETING
Martin Johnson House (T-29), Scripps Institute of Oceanography
8840 Biological Grade
La Jolla, California (USA) (Hybrid)
June 1 and 2, 2026

MEETING REPORT (REV)

The 4th Meeting of the IATTC Permanent Working Group on Ecosystem and Bycatch was held in hybrid format in La Jolla, California (USA) on June 1 and 2, 2026, at the Martin Johnson House, Scripps Institution of Oceanography, UC San Diego. It was co-chaired by Dr. Yonat Swimmer and Dr. Manuel Correia, in their capacity as co-chairs of the working group.

The list of documents presented and discussed during the meeting, together with the corresponding presentations, can be found on the website of the 4th Meeting of the IATTC Permanent Working Group on Ecosystems and Bycatch (https://www.iattc.org/en-US/Event/DetailMeeting/Meeting-EBWG-04). Twenty-three items were presented and discussed, grouped under seven main topics. The meeting agenda is presented below, along with the corresponding presentations. Appendix 1 includes a list of meeting documents and their links. EBWG4 made several consensus-based recommendations for consideration by the Scientific Advisory Committee (SAC) and the Commission, as found in found in Appendix 2.

Early in the meeting, discussions focused on the procedural roles of the EBWG, specifically concerning the provisions contained in Resolution C-22-06 (paragraph 3) regarding recommendations the Working Group reviews for submission directly to the Commission or to the SAC. The delegations of Guatemala and the United States differed in their interpretations and submitted written text that they requested be included in this Report. The discussion was not sufficient to resolve the issue and as such both statements are presented herein (see Appendix 3 statement from Guatemala and Appendix 4 statement from the United States. The list of attendees is included in Appendix 5.

AGENDA

1. Opening of the meeting

2. Adoption of agenda

3. Review of recommendations from the 3rd meeting of the EBWG

4. Updates on Ecosystem and Bycatch Activities

I. SAC-17-07 Characterization of longline fleets in IATTC Convention area (IATTC Staff)
II. Update on Deep Sea Mining (van der Grient, Royal Netherlands Institute for Sea Research (NIOZ) and B Dobush, Salt Horizon)

5. Ecosystem

I. EB-04-01 Ecosystem considerations report (IATTC Staff).

II. *EB-04-03 Advancing the Ecocard workplan: exploring ecoregions and establishing criteria for candidate indicators. (IATTC Staff)*
III. *Identification of persistent and ephemeral billfish bycatch hotspots across the Pacific Ocean (Arostegui, Woods Hole Oceanographic Institute).*
IV. *Implementation of the ecosystem approach to fisheries management: Advancing the development of ecosystem indicators (H. Murua, ISSF)*

6. Climate Change

I. *SAC-17 INF-M Climate change staff recommendations: updated (IATTC Staff)*

7. Elasmobranchs

I. *SAC-17-09 Proposed shark data collection and research plan for the IATTC: follow-up on paragraphs 15 and 16 of C-25-08 (IATTC staff)*
II. *Evaluating silky shark post release survival in class 4-5 purse seine vessels (IATTC staff)*
III. *Genetic population structure and misidentification reveal the need for regionally informed management of manta and devil rays (M Cronin, UMass Dartmouth)*
IV. *Identifying operational and anthropogenic drivers of mobulid ray bycatch in the EPO purse seine fishery. (I Garfield, UMass Dartmouth)*
V. *A Comprehensive approach to collecting species-specific data and assessing post-release survival on mobulid rays in the Hawaii Longline Fisheries (J Stahl, NOAA PIFSC)*
VI. *A shark reporting template for Resolution C-25-08 (IATTC staff)*
VII. *Analysis of incidental catches of blue shark (Prionace glauca) in industrial longline vessels targeting swordfish (X. gladius) in the Tropical Eastern Pacific Ocean, 2022-2025 (Moran, FIP Swordfish, Ecuador)*

8. Seabirds

i. *EB-04-02 IATTC Seabird Action Plan: Seabird distribution overlap with longline fisheries (IATTC Staff)*
ii. *EB-04-INF-A A seabird mitigation reporting template for the IATTC (IATTC Staff)*
iii. *Updates and future work relating to the Seabird Action Plan (T Clay, Environmental Defense Fund)*
iv. *Reducing seabird bycatch in Ecuador's artisanal longline fisheries (S Cruz, American Bird Conservancy)*
v. *EB-04-INF At-sea comparative testing of the effects of different towed objects on the aerial performance of tori lines in tuna* longline fisheries (W Tang et al., Shanghai Ocean University)

9. Best Handling and Release Practices (BHRP)

I. *A Decade of sustainable best practices in tuna purse seine fisheries (N Cuevas, AZTI).*
II. *EB-04-XX Guidelines for best handling and release practices for vulnerable species: sharks (update SAC-17-08), sea turtles (EB-04-04), and seabirds (EB-04-05) (IATTC staff).*
III. *SAC-17-INF-K Pilot study to evaluate use of tools for lifting large sharks: update (IATTC staff).*

10. Recommendations
11. Other business
12. Adjournment

The documents of the meeting and their corresponding links, as well as the presentations made, are listed below and are available on the IATTC website.

PRESENTATIONS	PRESENTACIONES	
Review of recommendations from the 3rd meeting of the EBWG	Revisión de las recomendaciones de la 3ª reunión del GTECI	**1**
Updates on Ecosystem and Bycatch Activities	Actualizaciones sobre actividades de ecosistemas y captura incidental	**2**
Ecosystem	Ecosistema	**4**
Climate change	Cambio climático	**1**
Elasmobranchs	Elasmobranquios	**7**
Seabirds	Aves marinas	**5**
Best Handling and Release Practices (BHRP)	Mejores prácticas de manipulación y liberación (MPML)	**3**
TOTAL PRESENTATIONS	**PONENCIAS TOTALES**	**23**
NON-IATTC SPEAKERS	**PONENTES EXTERNOS A LA CIAT**	**10**

APPENDIX 1 **Meeting documents**

- EBWG-04-01 - Ecosystem Considerations
- EBWG-04-02 - Albatross and Petrel overlap with pelagic longline fisheries in the EPO
- EBWG-04-03 - Advancing the EcoCard Workplan: Exploring ecoregions and establishing criteria for candidate indicators
- EBWG-04-04 - Best Handling and Release Practices for Sea Turtles captured in IATTC fisheries
- EBWG-04-05 - Updated Seabird Best Handling and Release Practice Guidelines
- SAC-17-07 - Characterizing and Classifying Longline Fisheries in the IATTC Convention Area: Updated
- SAC-17-08 - Updated Best Handling and Release Practice guidelines for sharks in IATTC fisheries
- SAC-17-09 - Proposed IATTC shark data collection and research plan: Follow-up on paragraphs 15 and 16 of Resolution C-25-08

Related documents:

- RD-A. At-sea comparative testing of the effects of different towed objects on the aerial performance of tori lines in tuna longline fisheries
- RD-B. A decade of monitoring Best Practices in tuna purse seine fisheries: implications for observer data collection
- RD-C. Analysis of incidental catches of blue shark in industrial longline vessels targeting swordfish in the Tropical EPO (2022-2025)
- RD-D. USA suggested edits to the shark reporting template (INF-B)
- RD-E. PAN proposal for the Establishment of a Billfish Working Group within the IATTC
- RD-F. Statement by the Delegation of Guatemala

Informational documents

- INF-A. Seabird Reporting Template
- INF-B. Notification of a template for the implementation of Resolution C-25-08 -- Conservation measures for the protection and sustainable management of sharks
- SAC-17- INF-K. Testing the Safety and Efficacy of Shark Bycatch Release Devices: Velcros and Harnesses
- SAC-17 INF-M. Updated Staff Draft Recommendations on Climate Change

Background documents:

- Stahl et al. -- A Comprehensive Approach to Collecting Species-Specific Data and Assessing Post-release Survival on Mobulid Rays in the Hawaii Longline Fisheries

Presentations

- 4.i Characterizing and classifying longline fisheries in the IATTC Convention Area: Updated (SAC-17-07)
- 4.ii Potential pathways for interactions between deep-sea mining and tuna fisheries
- 5.i Ecosystem Considerations
- 5.ii Advancing the EcoCard Workplan
- 5.iii Persistent hotspots of billfish (by)catch pervade the high seas of the tropical Pacific Ocean
- 5.iv Meeting on the Implementation of the Ecosystem Approach to Fisheries Management in tunaRFMOs: Advancing the Development of Ecosystem Indicators
- 7.i Proposed IATTC Shark Data Collection and Research Plan
- 7.ii Handling and survival of Silky Sharks captured in Class 4 and 5 purse seine vessels
- 7.iii Genetic population structure and misidentification reveal the need for regionally informed management of manta and devil rays
- 7.iv Identifying anthropogenic drivers of mobulid ray bycatch in the Eastern Pacific Ocean (EPO) purse seine fishery
- 7.v A collaborative approach to collecting species-specific manta and devil ray catch data and assessing effect on post release survival
- 7.vii Capturas incidentales de tiburón azul en el OPO ES
- 8.iii Ongoing seabird work to support updates at the IATTC
- 8.iv Reducción de la Pesca Incidental de Aves Marinas en Ecuador ES
- 8.v At-sea comparative testing of the effects of different towed objects on the aerial performance of tori lines in tuna longline fisheries
- 9.i A decade of monitoring Best Practices in tuna purse seine fisheries: Implications for observer data collection
- 9.iii Pilot study: Testing the safety and efficacy of shark bycatch release devices

APPENDIX 2 EBWG4 recommendations to the SAC

EBWG-04 RECOMMENDATIONS TO THE SAC/ RECOMENDACIONES DE GTECI-04 AL CCA

Ecosystems	Ecosistemas
a. The Commission staff collaborate and engage with the International Seabed Authority (ISA) to better understand the effects of deep-sea mining on tuna and tuna-like fisheries in the IATTC convention area and eventually to identify measures that the Commission might consider taking to mitigate them, and to report back to the EBWG and the SAC.	a. Que el personal de la Comisión colabore con la Autoridad Internacional de los Fondos Marinos (ISA - por sus siglas en inglés) para comprender mejor los posibles efectos de la minería en aguas profundas sobre las pesquerías de atunes y especies afines en el área de la Convención de la CIAT, e identificar medidas que la Comisión pueda considerar tomar para mitigarlos, e informar al GTECI y al CCA.
Ecosystem Approach to Fisheries Management	**Enfoque ecosistémico para la ordenación pesquera**
a. To support the implementation of the Ecocard workplan, noting the criteria established for delineation of ecoregions and indicator selection in EB-04-03.	a. Que se continue apoyando la implementación del plan de trabajo de Ecocard, tomando nota de los criterios establecidos para la delimitación de ecorregiones y la selección de indicadores en el documento EB-04-03.
b. To consider measures or actions to have improved bycatch data coverage and quality across all IATTC fisheries, including small-scale and longline fleets, with a view at strengthening regional Ecocard development and supporting the Ecosystem Approach to Fisheries	b. Considerar medidas o acciones para contar con una mejor cobertura y calidad de los datos de captura incidental en todas las pesquerías de la CIAT, incluidas las flotas artesanales y palangreros, con el propósito de fortalecer el desarrollo regional de Ecocard y

Management (EAFM).	respaldar el Enfoque Ecosistémico para la Ordenación Pesquera (EEOP).
c. That the IATTC monitor and assess the potential development of fisheries targeting mesopelagic species and other ecologically important "hub" species in the eastern Pacific Ocean. Such monitoring would enable the Commission to evaluate potential ecosystem consequences at an early stage and ensure that any future fishery developments are considered within an ecosystem-approach to fisheries management framework.	c. Que la CIAT monitoree y evalúe el posible desarrollo de pesquerías dirigidas a especies mesopelágicas y otras especies ecológicamente importantes que actúan como "especies clave de conexión" (*hub especie*) en el Océano Pacífico oriental. Dicho seguimiento permitiría a la Comisión evaluar las posibles consecuencias ecosistémicas en una etapa temprana y garantizar que cualquier desarrollo futuro de pesquerías sea considerado dentro de un marco de enfoque ecosistémico para la ordenación pesquera.
Reporting Templates and Requirements	**Plantillas y requisitos de presentación de informes**
a. That work be undertaken intersessional to develop a new, standardized shark reporting template that facilitates all CPCs provide necessary scientific data on all shark measures for adoption by the Commission in 2026. The EBWG has taken note of the importance of CPCs facilitating compliance regarding data that should be provided and that the COR follows up on these obligations.	a. Que se trabaje durante el período intercesiones para desarrollar una nueva plantilla estandarizada de informes sobre tiburones que facilite que todos los CPC proporcionen la información de los datos científicos necesarios sobre todas las medidas relacionadas con los tiburones, para su adopción por la Comisión en 2026. El GTECI toma nota de la importancia de que los CPC faciliten el cumplimiento en lo que se refiere a los datos que deberían ser provistos y que el COR dé seguimiento a esas obligaciones.
Shark Research Plan	**Plan de investigación sobre tiburones**
a. To support the proposed shark research plan outlined in document SAC-17-09 to advance shark conservation and management in the EPO.	a. Que se apoye el plan de investigación sobre tiburones propuesto en el documento SAC-17-09 para avanzar en la conservación y ordenación de los tiburones en el OPO.
b. Funds be allocated or obtained for the shark assessment and sampling efforts proposed in Tier 2 in document SAC-17-09 to produce a silky shark stock assessment. The IATTC Scientific Staff is encouraged to continue collaborating with CPCs, industry, universities, NGOs, and other bodies to fund and execute the	b. Que se asignen u obtengan fondos para las actividades de evaluación y muestreo de tiburones propuestas en el Nivel 2 del documento SAC-17-09 para producir una evaluación poblacional del tiburón sedoso. Se alienta al personal científico de la CIAT a continuar colaborando con los CPC, la industria, universidades,

proposed study.	ONG y otras entidades para financiar y ejecutar el estudio propuesto.
c. To support allocating or obtaining funding the development of a conceptual model for hammerhead sharks, like the one described in Talwar et al. (2025) for silky sharks, which will serve as the foundation for a Close Kin Mark Recapture (CKMR) assessment for hammerhead sharks (see unfunded project F.2.b in document IATTC-103-03c).	c. Que se apoye la asignación u obtención de fondos para desarrollar un modelo conceptual para los tiburones martillo, similar al descrito en Talwar et al. (2025) para el tiburón sedoso, que servirá como base para una evaluación mediante Captura-Recaptura de Parientes Cercanos (CKMR, por sus siglas en inglés) de los tiburones martillo (véase el proyecto no financiado F.2.b en el documento IATTC-103-03c).
Mobulids	**Mobulidos**
a. That studies analyzing individual vessel-specific fishing strategies continue and be further refined, as these offer a promising avenue for identifying practices that reduce the bycatch of vulnerable species.	a. Que los estudios que analizan estrategias de pesca específicas de embarcaciones individuales continúen y se perfeccionen, ya que representan una vía prometedora para identificar prácticas que reduzcan la captura incidental de especies vulnerables.
Seabird Mitigation Research	**Mitigación e investigación sobre aves marinas**
a. That the IATTC Staff-proposed seabird mitigation reporting template be considered.	a. Que se considere la plantilla de presentación de informes sobre mitigación de aves marinas propuesta por el personal de la CIAT.
b. That the IATTC Scientific Staff's analysis of seabird bycatch be expanded to include interactions with all orders of seabirds, not solely *Procellariiformes* (albatrosses and petrels).	b. Que se amplie el análisis del personal científico de la CIAT sobre la captura incidental de aves marinas para incluir interacciones con todos los órdenes de aves marinas, y no únicamente con los *Procellariiformes* (albatros y petreles).
c. Convening an intersessional meeting of the EBWG to review current seabird mitigation measures and related matters in greater depth, with a goal to develop an effective seabird conservation and management measure.	c. Que se convoque una reunión intercesiones del GTECI para analizar con mayor profundidad las medidas actuales de mitigación para aves marinas y asuntos relacionados, con el objetivo de desarrollar una medida eficaz de conservación y ordenación de aves marinas.
d. Encourage CPCs to undertake feasibility and performance studies	d. Que se aliente a los CPC a realizar estudios de factibilidad y

regarding the technical standards for mitigation measures in Table 1 (C-11-02), such as the effectiveness of different towing objects of tori lines, based on their specific operational conditions, and presenting the results to the EBWG and SAC for consideration.	desempeño sobre las normas técnicas para las medidas de mitigación incluidas en la Tabla 1 de la resolución C-11-02, como la eficacia de distintos objetos de arrastre utilizados en las líneas espantapájaros (*tori lines*), En base a sus condiciones operativas específicas, y presentar los resultados al Grupo de Trabajo de EB y al CCA para su consideración.
e. That the technical information for towed objects required to ensure the effectiveness of the tori line, be further clarified.	e. Que se aclaren aún más las normas técnicas relativas a los objetos de arrastre, requeridas para asegurar que las "tori lines" sean efectivas.
f. That the IATTC Scientific Staff collaborate on and support additional research of seabird bycatch mitigation measures for artisanal longline fisheries, such as the NISURI system (American Bird Conservancy) (see presentation 8.iv)	f. Que el personal científico de la CIAT colabore y preste su apoyo a nuevas investigaciones sobre medidas de mitigación de la captura incidental de aves marinas en la pesca artesanal con palangre, como el sistema NISURI (American Bird Conservancy) (ver presentación 8.iv)
Best Handling and Release Practices (BHRP) Implementation	**Implementación de las mejores prácticas de manipulación y liberación (MPML)**
a. CPCs are encouraged to collaborate with IATTC Staff to undertake feasibility and performance studies regarding the use of Velcro and harnesses, utilizing IATTC Staff-developed protocols.	a. Que se inste a los CPC a que colaboren con el personal de la CIAT para llevar a cabo estudios de viabilidad y desempeño relativos al uso de velcro y arneses, utilizando los protocolos elaborados por dicho personal.
b. That the finalized IATTC Best Handling and Release Practices (BHRPs) for sharks be discussed for inclusion in the guidelines (see resolution C-25-08, paragraph 12).	b. Que las MPML finales para tiburones sean discutidas para que se incluyan en las directrices pertinentes (ver resolución C-25-08, párrafo 12).
c. That the IATTC Staff link to existing educational resources on the IATTC website while IATTC-specific materials are under development.	c. Que el personal de la CIAT incluya en el sitio web de la CIAT enlaces a recursos educativos existentes mientras se desarrollan materiales específicos de la CIAT.
d. That the IATTC Staff collaborate with CPCs and utilize existing resources to develop and disseminate simplified BHRP educational	d. Que el personal de la CIAT colabore con los CPC y utilice recursos existentes para desarrollar y difundir materiales educativos

materials, such as illustrated infographics with minimum text for on-vessel reference and educational videos.	simplificados sobre MPML, tales como infografías ilustradas con texto mínimo para referencia a bordo y videos educativos.
e. That a portion of the Special Sustainable Development Fund for Fisheries for Highly Migratory Species be allocated to finance the development of additional educational toolboxes on BHRPs that do not already exist.	e. Que una parte del Fondo Especial para el Desarrollo Sostenible de las Pesquerías de Especies Altamente Migratorias se destine a financiar el desarrollo de herramientas educativas adicionales sobre MPML que aún no existan.

APPENDIX 3. Statement from Guatemala regarding C-22-06 (Paragraph 3):

The Delegation of Guatemala wishes to express its appreciation to the IATTC Secretariat for the commendable effort undertaken to organize this meeting under challenging circumstances related to funding and coordination, and to the Co-Chairs for their dedication, which, together with our collective commitment, gives us confidence that this meeting will be highly successful.

Guatemala takes this opportunity to refer to a matter that it considers fundamental. The importance of this Working Group is evident in light of the provisions of the Antigua Convention, which call for management approaches aligned with the principles and elements underpinning the Ecosystem Approach. This approach represents one of the most significant challenges for regional fisheries management organizations, as it highlights the multidisciplinary and interdisciplinary nature of fisheries management, drawing upon the multiple scientific disciplines—both natural and social sciences—that contribute to the effectiveness of our work.

For this Delegation, there is a structural and fundamental consideration. The IATTC operates through the integration of two clearly identifiable phases established under the Antigua Convention: first, a scientific cycle that develops through continuous interaction between the scientific staff and the delegations, culminating in the deliberations of the Scientific Advisory Committee (SAC), from which the best available scientific information is provided to the Commissioners for the adoption of appropriate management decisions; and second, a management cycle that integrates all inputs received from scientists and managers through the relevant working groups and committees.

The Ecosystem and Bycatch Working Group serves a purpose that, while not exclusively scientific, forms part of the essential elements that the Scientific Advisory Committee must consider because it directly affects scientific work and, in turn, should benefit from the deliberations of this Working Group. For this reason, while this Delegation acknowledges the provisions contained in paragraph 3 of Resolution C-22-06 regarding the possibility that matters reviewed by the Working Group may be submitted directly to the Commission, we understand that such circumstances arise only exceptionally, when those matters cannot be considered by the Scientific Advisory Committee, which is the body specifically mandated to review them. Likewise, those provisions do not preclude this Working Group from adopting specific measures to ensure that the issues addressed herein are reviewed by the SAC, thereby preserving sound institutional discipline and the spirit of the Antigua Convention.

Consistent with the important agenda before us, Guatemala wishes to express its readiness to join the consensus reached by this Working Group, provided that all decisions and recommendations adopted are submitted to the SAC for timely consideration.

APPENDIX 4. Statement from the United States regarding C-22-06 (Paragraph 3):

The United States acknowledges the text from the delegate of Guatemala with respect to the interpretation of Resolution C-22-06. Paragraph 3 of Resolution C-22-06 reads as follows:
"The conclusions and recommendations adopted by the EBWG:

i. shall be submitted first of the Scientific Advisory Committee (SAC), for its consideration and endorsement and later submission to the Commission, as endorsed;

ii. may be submitted to the Commission directly, whenever they could not be considered and/or endorsed by the SAC or upon the request of the Commission itself."

The United States clearly reads this text that the EBWG recommendations may be submitted to the Commission "whenever they could not be considered and/or endorsed by the SAC," (emphasis added). The Resolution does not make any reference to this scenario being exceptional or rare in nature, but simply states that recommendations can be submitted directly to the Commission without SAC endorsement. The U.S. recommends any revisions or additional criteria related to this text be proposed as a revision to the Resolution for the consideration of the Commission.

APPENDIX 5. List of Participants

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