**INTERAMERICAN TROPICAL TUNA COMMISSION**

**2ND MEETING OF THE PERMANENT WORKING GROUP ON ECOSYSTEM AND BYCATCH**

**2nd MEETING**

**La Jolla, California, USA**
**5- 6 June 2024**

# BRIEF REPORT OF THE MEETING

The 2nd Meeting of the Permanent Working Group on Ecosystem and Bycatch was held in La Jolla, California (USA) on June 5 and 6, 2024. It was co-chaired by Dr. Yonat Swimmer, and Mr. Manuel Correia, in their capacity as co-chairs of the working group. The list of participants is included in Annex 1.

The meeting agenda that was adopted without changes is attached as Annex 2.

The list of documents presented and discussed during the meeting can be consulted on the website of the 8th meeting of the Working Group, as well as the corresponding presentations.

Meeting documents:

- EB-02-01 - Ecosystem considerations
- EB-02-02 - Review of T-RFMO Ecosystem research to inform a workplan on EcoCards for the EPO
- EB-02-03 - Workplan towards the adoption of best handling and release practices for vulnerable species In IATTC fisheries
- SAC-15-09 - Sharks species under the purview of the IATTC
- SAC-15-10 - Shark sampling program
- SAC-15-11 - Best handling and release practice guidelines for sharks
- SAC-15-12 - Climate change workplan for the IATTC

Presentaciones:

- EB-02-01 Ecosystem Considerations EN
- EB-02-02 Review of t-RFMO ecosystem research to inform a workplan on EcoCards EN
- EB-02-03 Workplan towards the adoption of best handling and release practices for vulnerable species In IATTC fisheries EN
- Influence of environmental variability on the distribution of silky sharks EN
- Informing the spatial management of Silky shark EN
- Inputs for Multispecies Fisheries Bycatch MSE EN
- Mobulid ray sorting grids EN
- New Best Release Practice Guidelines PS EN
- Post release survival of mobulid rays in purse seine fisheries EN
- Progress in addressing key research to inform Mobulid ray conservation in the Pacific Ocean EN
- Relative efficacies of branchline weighting designs at mitigating seabird bycatch in pelagic longline fisheries EN
- SAC-15-09 and 10 Development of a Draft list of shark species under the purview of the IATTC EN
- SAC-15-11 Best handling and release practice guidelines for sharks EN
- SAC-15-12 Climate change workplan for the IATTC EN
- Seabird Bycatch Mitigation Experiments EN
- Spatio-temporal distribution of large of large pelagic fishes in the EPO EN

As a result of the group's work, several recommendations were agreed upon and are published on the Working Group meeting website as document EB-02 Recommendations adopted by the working group as well as an Annex 3.

It is expected that the 3rd meeting of the ecosystem and bycatch working group will take place in June 2025 at the time of the meetings of the Scientific Advisory Committee.

**Annex 1**
**Participants List**

| **ASISTENTES - ATTENDEES** | |
|---|---|
| **MIEMBROS - MEMBERS** | |
| **BELICE-BELIZE** | |
| **DELICE PINKARD***<br>Ministry of Finance<br>delice.pinkard@bhsfu.gov.bz | **CHARLES COC**<br>Ministry of Finance<br>charles.coc@bhsfu.gov.bz |
| **CANADÁ- CANADA** | |
| **JENNIFER SHAW***<br>Fisheries and Oceans Canada<br>jennifer.shaw@dfo-mpo.gc.ca<br>**KRISTEN COTE**<br>Fisheries and Oceans Canada<br>kristen.cote@dfo-mpo.gc.ca | **SARAH HAWKSHAW**<br>Fisheries and Oceans Canada<br>sarah.hawkshaw@dfo-mpo.gc.ca |
| **CHINA** | |
| **QINQIN LIN***<br>Shangai Ocean University<br>qqlin@shou.edu.cn<br>**XIAOJIE DAI**<br>Shangai Ocean University<br>xjdai@shou.edu.cn<br>**FENG JI**<br>Shangai Ocean University<br>fengji_shou@163.com | **DAI LIBIN**<br>Shangai Ocean University<br>libin.dai@qq.com<br>**YIQIAN SHI**<br>Shangai Ocean University<br>shiyiqian_shou@163.com<br>**YANG SHIYU**<br>Shangai Ocean University<br>yangshiyu_shou@163.com |
| **COLOMBIA** | |
| **ANDRES ORTÍZ***<br>Autoridad Nacional de Acuicultura y Pesca<br>andres.ortiz@aunap.gov.co<br>**LEONEL BOHORQUEZ**<br>Ministerio de Relaciones Exteriores<br>leonel.bohorquez@cancilleria.gov.co<br>**JAVIER GARCÍA**<br>Ministerio de Comercio, Industria y Turismo<br>jgarciap@mincit.gov.co<br>**GUSTAVO LARA**<br>Ministerio de Ambiente y Desarrollo Sostenible<br>glara@minambiente.gov.co | **CARMEN LÓPEZ**<br>Ministerio de Ambiente y Desarrollo Sostenible<br>calopezanaya@minambiente.gov.co<br>**SANDRA MUÑOZ**<br>Ministerio de Agricultura y Desarrollo Rural<br>sandra.munoz@minagricultura.gov.co<br>**GERMAN FONSECA**<br>Programa Nacional de Observadores<br>observadores@pescalimpia.org |
| **COREA - KOREA** | |
| **JEONG HO PARK***<br>National Institute of Fisheries Science<br>marinbio@korea.kr | **SANGGYU SHIN**<br>National Institute of Fisheries Science<br>gyuyades82@gmail.com |
| **HEEWON PARK**<br>National Institute of Fisheries Science<br>heewon81@gmail.com | |

DRAFT

## COSTA RICA

**MIGUEL DURÁN***
INCOPESCA/ Instituto Costarricense de Pesca y Acuicultura
mduran@incopesca.go.cr

**JOSÉ MIGUEL CARVAJAL**
INCOPESCA/ Instituto Costarricense de Pesca y Acuicultura
jcarvajal@incopesca.go.cr

## ECUADOR

**GUILLERMO MORÁN***
Tunacons
gamv6731@gmail.com

**LUCIANO DELGADO**
Ministerio de Producción, Comercio Exterior, Inversiones y Pesca
ldelgados@produccion.gob.ec

**HENRY MERO**
Ministerio de Producción, Comercio Exterior, Inversiones y Pesca
hmero@produccion.gob.ec

**JOSTYN SÁNCHEZ**
Ministerio de Producción, Comercio Exterior, Inversiones y Pesca
jsanchezv@produccion.gob.ec

**ESTEBAN ELÍAS**
Instituto Público de Investigación de Acuicultura y Pesca
eelias@institutopesca.gob.ec

**MANUEL PERALTA**
Instituto Público de Investigación de Acuacultura y Pesca
mperalta@institutopesca.gob.ec

**LUIS AMBROSIO**
Tunacons
lambrosio66@gmail.com

**LEONEL CAICEDO**
FIP PEZ Espada - Sworfish.EC
leonelcaicedolc@hotmail.com**JOSÉ GARCÍA**
Tunacons
jgarcia@tunacons.org

**GUILLERMO MORÁN B.**
Tunacons
guillermo.estefano.mb@gmail.com

**JUAN C. QUIROZ**
Tunacons
jcquiroz@facilevisual.com

**PEDRO SANTISTEVAN**
Tunacons
psantistevan@tunacons.org

**LUIS TORRES**
Probecuador
probecuador@gye.satnet.net

**RAFAEL TRUJILLO**
Cámara Nacional de Pesquería
rtrujillo@camaradepesqueria.ec

## EL SALVADOR

**ANTONIO VÁSQUEZ***
Ministerio de Agricultura y Ganadería
antonio.vasquez@mag.gob.sv

**ANA GALDAMEZ**
Ministerio de Agricultura y Ganadería
ana.galdamez@mag.gob.sv

## ESTADOS UNIDOS DE AMÉRICA – UNITED STATES OF AMERICA

**STEVEN TEO***
NOAA/National Marine Fisheries Service
steve.teo@noaa.gov

**COLIN BRINKMAN**
U.S. Department of State
Brinkmancc@state.gov

**MERNA SAAD**
U.S. Department of State
saadmn@state.gov

**CELIA BARROSO**
NOAA/National Marine Fisheries Service
celia.barroso@noaa.gov

**NICHOLAS DUCHARME-BARTH**
NOAA/National Marine Fisheries Service
nicholas.ducharme-barth@noaa.gov

**TYLER LAWSON**
NOAA/National Marine Fisheries Service
tyler.lawson@noaa.gov

**HUIHUA LEE**
NOAA/National Marine Fisheries Service
huihua.lee@noaa.gov

**AMANDA MUNRO**

**RACHAEL WADSWORTH**
NOAA/National Marine Fisheries Service
rachael.wadsworth@noaa.gov

**MICHELLE HORECZKO**
California Dept. Fish & Wildlife
michelle.horeczko@wildlife.ca.gov

**ANDRE BOUSTANY**
Monterey Bay Aquarium
aboustany@mbayaq.org

**CHRISTOPHER DAHL**
Pacific Fishery Management Council
kit.dahl@noaa.gov

**MARK FITCHETT**
Western Pacific Regional Fishery Management Council
mark.fitchett@wpcouncil.org

**SVEIN FOUGNER**
Hawaii Longline Association
fougneranalytics@gmail.com

**THERESA LABRIOLA**
Wild Oceans
tlabriola@wildoceans.org

**DOROTHY LOWMAN**

DRAFT

| | |
|---|---|
| NOAA/National Marine Fisheries Service<br>amanda.munro@noaa.gov<br>**PETER KURIYAMA**<br>NOAA/National Marine Fisheries Service<br>peter.kuriyama@noaa.gov<br>**EMILY REYNOLDS**<br>NOAA/National Marine Fisheries Service<br>emily.reynolds@noaa.gov<br>**YONAT SWIMMER**<br>NOAA/National Marine Fisheries Service<br>yonat.swimmer@noaa.gov<br>**DESIREE TOMMASI**<br>NOAA/National Marine Fisheries Service<br>desiree.tommasi@nooa.gov | U.S. Commissioner<br>dmlowman01@comcast.net<br>**JOSH MADEIRA**<br>Monterey Bay Aquarium<br>jmadeira@mbayaq.org<br>**MATTHEW OWENS**<br>Tri Marine<br>mowens@trimarinegroup.com<br>**JIM SOUSA**<br>GS Fisheries Inc.<br>jim.sousa@marpacifico.net<br>**MICHAEL THOMPSON**<br>U.S. Commissioner<br>thompsonmike148@gmail.com |
| **GUATEMALA** | |
| **CARLOS MARTÍNEZ***<br>Dirección de Normatividad de la Pesca y Acuicultura<br>carlosmartinez41331@gmail.com<br>**BERNAL CHAVARRIA**<br>Dirección de Normatividad de la Pesca y Acuicultura<br>bchavarria@lsg-cr.com | **VASCO FRANCO**<br>Pesquera Reina De La Paz<br>vascofrancoduran@yahoo.com |
| **JAPÓN - JAPAN** | |
| **HIDETADA KIYOFUJI ***<br>Fisheries Agency of Japan<br>kiyofuji_hidetada20@fra.go.jp<br>**SHUYA NAKATSUKA**<br>Fisheries Agency of Japan<br>nakatsuka_shuya49@fra.go.jp<br>**HIROMU FUKUDA**<br>Fisheries Agency of Japan<br>fukuda_hiromu57@fra.go.jp | **TAKAAKI HASEGAWA**<br>Fisheries Agency of Japan<br>hasegawa_takaaki53@fra.go.jp<br>**KIRARA NISHIKAWA**<br>Fisheries Agency of Japan<br>nishikawa_kirara68@fra.go.jp |
| **MÉXICO – MEXICO** | |
| **MICHEL DREYFUS***<br>Cicese<br>dreyfus@cicese.mx<br>**MARTHA BETANCOURT**<br>Fidemar<br>martha.betancourt@uabc.edu.mx | **MARIANA RAMOS**<br>Alianza del Pacífico por el Atún Sustentable<br>mariana@pacifictunaalliance.org |
| **NICARAGUA** | |
| **RENALDY BARNUTY***<br>Inpesca<br>rbarnutti@inpesca.gob.ni<br>**ROBERTO CHACÓN**<br>Inpesca<br>rchacon@inpesca.gob.ni<br>**JULIO GUEVARA**<br>Inpesca<br>juliocgp@hotmail.com | **REYNA ARANA**<br>Atunes de Nicaragua,S.A.<br>karina.marquez3@gmail.com<br>**KAROLA SIRIAS**<br>Atunsa<br>k_27@hotmail.es |
| **PANAMÁ- PANAMA** | |
| **YARKELIA VERGARA***<br>Autoridad de los Recursos Acuáticos de Panamá yvergara@arap.gob.pa<br>**YESURI PINO**<br>Autoridad de los Recursos Acuáticos de Panamá<br>yesuri.pino@arap.gob.pa | **MARÍA P. DÍAZ**<br>Fipesca<br>mpdiaz@fipesca.com<br>**ENRIQUE ESPINOSA**<br>Pronaob<br>pronaob@pronaob.org |
| **PERÚ - PERU** | |
| **ANA ALEGRE*** | **ALFONSO MIRANDA** |

DRAFT

| | |
|---|---|
| Instituto del Mar del Perú<br>palegre@imarpe.gob.pe<br>**JOSÉ SALCEDO**<br>Instituto del Mar del Perú<br>jsalcedo@imarpe.gob.pe | PEZ de Exportación S.A.C<br>alfonso.miranda@pezex.pe |
| **TAIPEI CHINO – CHINESE TAIPEI** | |
| **SHENG-PING WANG***<br>National Taiwan Ocean University<br>wsp@mail.ntou.edu.tw<br>**SHAO-WEI LU**<br>Fisheries Agency<br>shaowei0220@ms1.fa.gov.tw | **HSIANG-YI YU**<br>Fisheries Agency<br>hsiangyi@ms1.fa.gov.tw |
| **UNIÓN EUROPEA – EUROPEAN UNION** | |
| **JOSU SANTIAGO***<br>Azti Tecnalia<br>jsantiago@azti.es<br>**LOURDES RAMOS**<br>Instituto Español de Oceanografía<br>mlourdes.ramos@ieo.csic.es<br>**MARÍA JUAN**<br>Instituto Español de Oceanografía<br>mjuan.jorda@ieo.csic.es<br>**EIDER ANDONEGI**<br>Azti Tecnalia<br>eandonegi@azti.es | **MIGUEL HERRERA**<br>Opagac<br>miguel.herrera@opagac.org<br>**JEFFERSON MURUA**<br>Azti Tecnalia<br>jmurua@azti.es<br>**JON URANGA**<br>Azti Tecnalia<br>juranga@azti.es |
| **VENEZUELA** | |
| **ALVIN DELGADO***<br>Fundatun<br>fundatunpnov@gmail.com<br>**JEIRIS GALICIA**<br>Ministerio del Poder Popular de Pesca y Acuicultura<br>jgalicia.minpesca@gmail.com | **ELENA QUINTERO**<br>Ministerio del Poder Popular de Pesca y Acuicultura<br>elenaquintero.t@gmail.com |
| **NO MIEMBROS COOPERANTES – COOPERATING NON-MEMBERS** | |
| **BOLIVIA** | |
| **LIMBERT CORTÉZ***<br>Ministerio de Defensa<br>limbert.cortez@protonmail.ch | **HUGO ALSINA**<br>Ministerio de Defensa<br>hugo.alsina@protonmail.ch |
| **CHILE** | |
| **PATRICIO BARRIA***<br>Instituto de Fomento Pesquero<br>patricio.barria@ifop.cl | |
| **ORGANIZACIONES NO GUBERNAMENTALES – NON-GOVERNMENTAL ORGANIZATIONS** | |

DRAFT

| | |
|---|---|
| **LUIGI BENINCASA**<br>Atunec<br>luigibenincasa@gmail.com<br>**ORION CRUZ**<br>Defenders of Wildlife<br>OCruz@defenders.org<br>**MICHAEL DREXLER**<br>Ocean Conservancy<br>mdrexler@oceanconservancy.org<br>**CHLOE EVANS**<br>The Ocean Foundation<br>cevans@oceanfdn.org<br>**WILLIAM GIBBONS-FLY**<br>American Tunaboat Association<br>wgibbons-fly@atatuna.com<br>**PABLO GUERRERO**<br>World Wildlife Fund<br>pablo.guerrero@wwf.org.ec | **CRAIG HEBERER**<br>The Nature Conservancy<br>craig.heberer@tnc.org<br>**ALEXIA MORGAN**<br>Sustainable Fisheries Partnership<br>alexia.morgan@sustainablefish.org<br>**GALA MORENO**<br>International Seafood Sustainability Foundation<br>gmoreno@iss-foundation.org<br>**JONATHAN PINCAY**<br>COREMAHI<br>comunicaciones@coremahi.org<br>**GEORGE PINTO**<br>COREMAHI<br>pinto27-69@hotmail.com |
| **OBSERVADORES – OBSERVER** | |
| **SANDRA ANDRAKA**<br>EcoPacific+<br>sandrakag@gmail.com<br>**BRENDAN TALWAR**<br>Scripps Institution of Oceanography<br>talwar.brendan@gmail.com | **MANUEL CORREIA**<br>Bycatch WG Co-Chair<br>manuelcorreia.a@gmail.com |
| **SECRETARÍA – SECRETARIAT** | |
| **ARNULFO FRANCO, Director**<br>afranco@iattc.org<br>**MARISOL AGUILAR**<br>maguilar@iattc.org<br>**ANDRES ARENS**<br>andres.arens@fiskare.org<br>**RICARDO BELMONTES**<br>rbelmontes@iattc.org<br>**YOLE BUCHALLA**<br>ybuchalla@iattc.org<br>**DAN CREAR**<br>dcrear@iattc.org<br>**BARBARA CULLINGFORD**<br>bcullingford@iattc.org<br>**ALEXANDRE DA SILVA**<br>adasilva@iattc.org<br>**ROLANDO DENIS**<br>rdenis@iattc.org<br>**LEANNE FULLER**<br>lfuller@iattc.org<br>**MONICA GALVÁN**<br>mgalvan@iattc.org<br>**GRIFFIN GARNER**<br>ggarner@iattc.org<br>**SHANE GRIFFITHS**<br>sgriffiths@iattc.org<br>**MELANIE HUTCHINSON**<br>mhutchinson@iattc.org | **JON LOPEZ**<br>jlopez@iattc.org<br>**PAULINA LLANO**<br>pllano@iattc.org<br>**DAN MARGULIES**<br>dmargulies@iattc.org<br>**ALFONSO MIRANDA**<br>amiranda@iattc.org<br>**DAN OVANDO**<br>dovando@iattc.org<br>**CHRISTINE PATNODE**<br>cpatnode@iattc.org<br>**JEAN-FRANCOIS PULVENIS**<br>jpulvenis@iattc.org<br>**MARLON ROMAN**<br>mroman@iattc.org<br>**ROBERT SARAZEN**<br>rsarazen@iattc.org<br>**SALVADOR SIU**<br>ssiu@iattc.org<br>**ENRIQUE UREÑA**<br>eurena@iattc.org<br>**KATYANA VERT-PRE**<br>vertpre.katyana@gmail.com<br>**BRAD WILEY**<br>bwiley@iattc.org<br>**HAIKUN XU**<br>hkxu@iattc.org |

*Head of Delegation-Jefe de Delegación

DRAFT

**Annex 2**

**AGENDA**

1. **Opening of the meeting**
2. **Adoption of the agenda**
3. **Review of recommendations from the 1st meeting of the Ecosystem and Bycatch Working Group (EBWG)**
   a. Brief discussion on circle hook size to resolve C-19-04 (Co-Chairs)
4. **Updates on Ecosystem and Bycatch Activities**
5. **Ecosystem**

**a1.** Ecosystem considerations report (L. Fuller, IATTC Staff) EB-02-01

**a.2** Review of t-RFMO ecosystem research to inform a workplan on EcoCards for the EPO (L. Fuller, IATTC Staff) EB-02-02

**a.3.** Inputs for holistic bycatch management strategy evaluation (E. Gilman, Blue Ocean Institute)

**a.4.** Spatio-temporal distribution of the richness of large pelagic fishes in the Eastern Pacific Ocean (Buenfil-Avila, Aura et al, Instituto Politécnico Nacional-CICIMAR, Mexico).

**5.b. Climate Change**

**b.1**. A climate change workplan for the IATTC (D. Crear, IATTC Staff) SAC-15-12

**5.c. Eslamobranchs**

**c.1** Lista de especies de tiburones de competencia de la CIAT (re: Res C-23-07) (SAC 15-09, S. Griffiths, personal de la CIAT)

**c.2.** Modelo conceptual del tiburón sedoso (B. Talwar, The Nature Conservancy y Scripps Institution of Oceanography de UCSD)

**c.3** Avances en la conservación de Mobúlidos: un proyecto en colaboración con la flota de EE. UU. (Moreno/Cronin, ISSF)

**c.4** Efecto de la variabilidad ambiental en la distribución del tiburón sedoso (Carcharhinus falciformis) capturado en el océano Pacífico oriental. (M. Martinez et al., Instituto Politécnico Nacional-CICIMAR, Mexico)

**5.d. Seabirds**

**d.1.** Synthesizing a network of evidence on a seabird bycatch mitigation measure prescribed by regional fisheries management organizations (M. Chaloupka & E. Gilman, Blue Ocean Institute)

**d.2.** Seabird bycatch mitigation trials in U.S. Pacific Ocean longline fisheries (A. Ishizaki-West Pac Fish Mgt Council, US)

**5.e. Best practices**

**e.1.** Best handling and releasing practices: roadmap for vulnerable species (EB 02-03, M. Hutchinson, IATTC Staff) SAC-15-11

**e.2.** Best handling and release practices for sharks in IATTC fisheries (re: Res C-23-07) (SAC 15-11, M. Hutchinson, IATTC Staff) EB-02-03

**e.3.** Selective sorting grids for improved best handling and release practices of large mobulid rays in tropical tuna purse seiners (J. Murua, AZTI, ISSF, Duke Univ.)

**e.4.** Updated best handling and release practice guidelines for vulnerable species in tropical tuna purse seine fisheries (J. Murua, AZTI, ISSF).

**e.5.** Mobulid post-release survival in purse seine fisheries: Implications for best handling and release practices (J. Stewart, The Manta Trust)

6. **Recommendations to the Scientific Advisory Committee**

DRAFT

7. **Other business**
8. **Adjournment**

DRAFT

**Annex 3**

**INTER-AMERICAN TROPICAL TUNA COMMISSION**

**WORKING GROUP ON ECOSYSTEMS AND BYCATCH**

**2ND MEETING**

**La Jolla, California (USA)**

**05-06 June 2024**

# RECOMMENDATIONS ADOPTED BY THE WORKING GROUP

The EBWG recommends that:

## 1. Sea Turtles

1.1. A second circle hook workshop be conducted that will fulfill the mandate of paragraph 3(d)(i) of Res. C-19-04.

1.2. Advice be provided by the workshop on the impacts of fishing operations on the form and structure (i.e., longevity and integrity) of circle hooks of various sizes and from different manufacturers.

1.3. The workshop include development of a third mitigation measure as described in Paragraph 3(d)(iii) of C-19-04 for small coastal multi-species vessel fleets as well as best handling and releasepractices for sea turtles.

## 1. Mobulid Rays

2.1. The use of sorting grids be considered on purse seine vessels to mitigate impacts to Mobulid rays.

2.2. Captain workshops include training on the use of sortinggrids and encourage their voluntary use.

2.3. The Commission endorse the Best Handling and Release Practices (BHRP) guideline development workplan for rays, and sorting grids be included in handling and release guidelines in resolution C-15-04 Annex 1, point 5 as another alternativefor the release of rays.

## 3. Climate Change and EcoCards Workplans

3.1. The SAC and the Commission consider the further development of the proposed Climate Change and EcoCards Workplans, and encourage that this work be done in collaboration with expertise from other tuna RFMOs.
.

3.2. Final workplan proposals be submitted to the Commission, along with proposed budgets.

## 2. Hammerhead Sharks

Considering the benefits of understanding the ecology and spatial population structure of target and bycatch species in various assessment efforts, including close-kin mark-recapture (CKMR) and conventional stock assessment, a conceptual model of life history, ecology, and spatial population structure be developed for three hammerhead sharks species *Sphyrnalewini, S. zygaena and S. mokarran* similar to theone described in Talwar et al. (2024; presentation EB-02 5.c.2) for silky shark.

## 4. Fleet Characteristics

The Staff, in coordination with the CPCs, develop and present to the Commission the results of a process to characterize and classify the longline fleets and their fisheries in the Convention Area, distinguishing their dynamics and differentiated impacts, as well as the catchability of species, whether directed, associated or incidental.

## 5. Meeting Process

The SAC and Commission consider that, in the Rules of Procedure, a provision be added to the effect that, while appreciating the improvements introduced in the dynamics of the meetings of the SAC and related working groups, meeting documents and presentations should be made available through posting on the Commission web site at least 2 weeks before the start of the corresponding cycle of meetings, in both Spanish and English

## 6. Seabirds

The below described Seabird Action Plan (see Annex 1) be adopted, with the understanding that an intersessional meeting will be held prior to the third meeting of the EBWG.

## 7. Shark species list

8.1. For the purposes of Art VII, paragraph f) of the Antigua Convention, the preliminary list of 19 species of sharks presented by the IATTC Staff be adopted [see attached], understanding that this list is based upon species of interest due to their interactions and catchability associated with fisheries under IATTC management.

8.2. The SAC consider the inclusion in the list of:

- the crocodile shark, *Pseudocarcharias kamohari*;
- rays, manta rays and mobulas of interest.

**Annex 1**
**Seabird Action Plan**
**(with timeline)**

**2024**:

1. IATTC Scientific Staff will conduct a seabird assessment for presentation at the EBWG in 2025, including but not limited to:
   a. Comparison between C-11-02 and mitigation measures in other tRFMOs.
   b. Update of [SAR-7-05b]: spatial distributions of seabird species in the IATTC Convention Area, including any geographic hotspots for these species, overlap with LL fishing effort, and conservation statuses
   c. Overview of mitigation measures in use by CPCs in the IATTC Convention Area as required in paragraph 5 of C-11-02. This should account for all CPCs, including any that may have vessels fishing in areas where bycatch mitigation measures are not required.
   d. Summary of observed and estimated seabird bycatch rates in the IATTC Convention Area, including geographic information where possible, noting that data are limited.

**2025**:

2. At the 2025 EBWG, the IATTC Scientific Staff will present the results of its assessment for discussion by CPCs.

3. Between EBWG 2025 and the 2025 IATTC plenary, interested CPCs will coordinate intersessionally on a draft proposal updating C-11-02.

Proposed sponsors will present the updated seabird proposal for adoption at the 103rd meeting of the IATTC in 2025.

**Annex 2**
**List of shark species**

| | Family / Familia | Species / nombre científico | Common name | Nombre común |
|---|---|---|---|---|
| 1 | Alopiidae | Alopias pelagicus | Pelagic thresher | Zorro pelágico |
| 2 | Alopiidae | *Alopias superciliosus* | Bigeye thresher | Zorro ojón |
| 3 | Alopiidae | *Alopias vulpinus* | Common thresher | Tiburón zorro pinto |
| 4 | Carcharhinidae | *Carcharhinus brachyurus* | Copper shark | Tiburón cobrizo |
| 5 | Carcharhinidae | *Carcharhinus falciformis* | Silky shark | Tiburón sedoso |
| 6 | Carcharhinidae | *Carcharhinus galapagensis* | Galapagos shark | Tiburón de Galápagos |
| 7 | Carcharhinidae | *Carcharhinus longimanus* | Oceanic whitetip shark | Tiburón punta blanca oceánico |
| ~~8~~ | ~~Lamnidae~~ | ~~*Carcharodon carcharias*~~ | ~~Great white shark~~ | ~~Jaquetón blanco~~ |
| ~~9~~ | ~~Cetorhinidae~~ | ~~*Cetorhinus maximus*~~ | ~~Basking shark~~ | ~~Peregrino~~ |
| 10 | Galeocerdonidae | *Galeocerdo cuvier* | Tiger shark | Tintorera tigre |
| 11 | Lamnidae | *Isurus oxyrinchus* | Shortfin mako shark | Mako de aleta corta |
| 12 | Lamnidae | *Isurus paucus* | Longfin mako shark | Marrajo carite |
| 13 | Lamnidae | *Lamna ditropis* | Salmon shark | Marrajo salmón |
| 14 | Lamnidae | *Lamna nasus* | Porbeagle shark | Marrajo sardinero |
| 15 | Carcharhinidae | *Prionace glauca* | Blue shark | Tiburón azul |
| 16 | Rhincodontidae | *Rhincodon typus* | Whale shark | Tiburón ballena |
| 17 | Sphyrnidae | *Sphyrna lewini* | Scalloped hammerhead shark | Cornuda común |
| 18 | Sphyrnidae | *Sphyrna mokarran* | Great hammerhead | Cornuda gigante |
| 19 | Sphyrnidae | *Sphyrna zygaena* | Smooth hammerhead shark | Cornuda cruz |

***The species below was recommended by 2nd_EBWG*** ***La siguiente especie fue recomendada por el 2do_EBWG***

| | | | | |
|---|---|---|---|---|
| 20 | Pseudocarchariidae | *Pseudocarcharias kamoharai* | Crocodile shark | Tiburón cocodrilo |

BORRADOR