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## **ANNOTATED AGENDA FOR THE 18<sup>TH</sup> WORKING PARTY ON ECOSYSTEMS AND BYCATCH: ASSESSMENT MEETING**

**Last updated: August 2022**

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**Date:** 5-9 September 2022

**Location:** Zoom

**Venue:** Virtual

**Time:** 12:00 – 16:00 (Seychelles time)

**Chair:** Dr Mariana Tolotti (EU, France)

**Vice-Chairs:** Mr Mohammed Koya (India) and Dr Charlene da Silva (South Africa)

### **1. OPENING OF THE MEETING (Chair)**

### **2. ADOPTION OF THE AGENDA AND ARRANGEMENTS FOR THE SESSION (Chair)**

- IOTC-2022-WPEB18-01a: Agenda of the 18th Working Party on Ecosystems and Bycatch (Assessment Meeting)
- IOTC-2022-WPEB18-01b: Annotated agenda of the 18th Working Party on Ecosystems and Bycatch (Assessment Meeting)
- IOTC-2022-WPEB18-02: List of documents of the 18th Working Party on Ecosystems and Bycatch (Assessment Meeting)

### **3. THE IOTC PROCESS: OUTCOMES, UPDATES AND PROGRESS**

#### **3.1. Outcomes of the 26th Session of the Commission (IOTC Secretariat)**

- IOTC-2022-WPEB18-03: Outcomes of the 26th Session of the Commission

#### **3.2. Outcomes of the 24<sup>th</sup> Session of the Scientific Committee (IOTC Secretariat)**

- IOTC-2022-WPEB18-04: Outcomes of the 24<sup>th</sup> Session of the Scientific Committee

#### **3.3. Review of the Conservation and Management Measures relevant to Ecosystems and Bycatch (IOTC Secretariat)**

- IOTC-2022-WPEB18-05: Review of the Conservation and Management Measures relevant to Ecosystems and Bycatch

#### **3.4. Progress on the recommendations of WPEB17 (IOTC Secretariat)**

- IOTC-2022-WPEB18-06: Progress on the recommendations of WPEB16

### **4. REVIEW OF THE DATA AVAILABLE AT THE SECRETARIAT FOR BYCATCH SPECIES (IOTC Secretariat)**

- IOTC-2022-WPEB18-07: Review of the statistical data and fishery trends for ecosystems and bycatch species (IOTC Secretariat)

### **5. REVIEW OF NATIONAL BYCATCH ISSUES IN IOTC MANAGED FISHERIES AND NATIONAL PLANS OF ACTION (sharks; seabirds; marine turtles) (CPCs and IOTC Secretariat)**

#### **5.1. Updated status of development and implementation of NPOA for seabirds and sharks, and the implementation of the FAO guidelines to reduce marine turtle mortality in fishing operations (CPCs)**

- IOTC-2022-WPEB18-08: Status of development and implementation of NPOA for seabirds and sharks, and the implementation of the FAO guidelines to reduce marine turtle mortality in fishing operations (IOTC Secretariat)

- IOTC-2022-WPEB18-10: South Africa's NPOA Sharks II 2022 (C. da Silva)

## 5.2. Species identification tools

Information papers:

- IOTC-2022-WPEB18-INF17: Guide d'identification des espèces capturées dans les pêcheries tropicales (P. Sabarros, F. Moussy and E. Mollier)

## 6. REVIEW INFORMATION ON BIOLOGY, ECOLOGY, FISHERIES AND ENVIRONMENTAL DATA RELATING TO SHARKS (Chair)

### 6.1. Presentation of new information available on sharks (all)

- IOTC-2022-WPEB18-11: Length-Weight relationships for several large pelagic sharks from the Indian Ocean (A. Ramos-Cartelle, B. García-Cortés, J. Mejuto, I. González-González, A. Carroceda and J. Fernández-Costa)
- IOTC-2022-WPEB18-12: Species composition, commercial landings, distribution and some aspects of biology of shark (Class Pisces) of Pakistan: pelagic sharks (M. Moazzam and H. B. Osmany)
- IOTC-2022-WPEB18-13: Biological information for most commonly caught shark and ray species (Seret B., F. J. Abascal, J. Amande, J. Ariz, P. Bach, P. Chavance, R. Coelho, M. Korta, F. Poisson, M. N. Santos, and H. Murua)
- IOTC-2022-WPEB18-14: Status of marine sharks and rays in Southeast Asia (N. Clark-Shen)
- IOTC-2022-WPEB18-15: Semi-quantitative risk assessment of Chondrichthyan species from coastal Kenya using Productivity and Susceptibility Analysis (PSA) (B. K. Kiilu, B. Fulanda, E. Kimani, G. Okemwa, L. Menya, R. Oddenyo, E. Mueni, P. Musembi, G. Nduku, J. Musembei, M. Okeri)
- IOTC-2022-WPEB18-29: Silky shark bycatch in purse Seine fisheries with dFADs exploring differences between fisheries and overall impact estimates (I. Ziegler)
- IOTC-2022-WPEB18-30: Fishing, sizes and sex-ratios of blue shark and silky shark caught by Indonesian tuna longline in the eastern Indian Ocean (D. Novianto, B. Setyadji, A. Wujdi, R. Yuneni and A. Mustofa)

Information papers:

- IOTC-2022-WPEB18-INF01: Sharks caught in the protective gillnets off KZN South Africa. 10. The dusky shark *Carcharhinus obscurus* (Leseur 1818) (S. F. J. Dudley, G. Cliff, M. P. Zungu and M. J. Smale)
- IOTC-2022-WPEB18-INF02: Sharks caught in the protective gillnets off KZN South Africa. 8. The great hammerhead shark *Sphyrna mokarran* (Rüppell) (G. Cliff)
- IOTC-2022-WPEB18-INF03: Sharks caught in the protective gillnets off KZN South Africa. 11. The scalloped hammerhead shark *Sphyrna lewini* (Griffith and Smith) (P. de Bruyn, S. F. J. Dudley, G. Cliff and M. J. Smale)
- IOTC-2022-WPEB18-INF04: Sharks caught in the protective gillnets off KZN South Africa. 9. The spinner shark *Carcharhinus brevipinna* (Müller and Henle) (B. R. Allen and G. Cliff)
- IOTC-2022-WPEB18-INF05: Spatio-Temporal Distribution of Juvenile Oceanic Whitetip Shark Incidental Catch in the Western Indian Ocean (L. Lopetegui-Eguren, J. J. Poos, H. Arrizabalaga, G. L. Guirhem, H. Murua, N. Lezama-Ochoa, S. P. Griffiths, J. R. Gondra, P. S. Sabarros, J. C. Báez and M. J. Juan-Jordá)
- IOTC-2022-WPEB18-INF06: M-Risk: A framework for assessing global fisheries management efficacy of sharks, rays, and chimaeras (C. S. Sherman, G. Sant, C. A. Simpfendorfer, E. D. Digel, P. Zubick, G. Johnson, M. Usher, N. K. Dulvy)

### 6.2. Shark research plans (all)

## 7. STOCK ASSESSMENT AND INDICATORS FOR SHARKS (Chair)

### 7.1. Review of indicators (all)

- Scalloped hammerhead
  - IOTC-2022-WPEB18-16: Scalloped hammerhead (*Sphyrna lewini*): An important bycatch of in gillnet fisheries of Pakistan (M. Moazzam)
  - IOTC-2022-WPEB18-17: Bycatch of hammerhead sharks caught by the French pelagic longline and purse seine fisheries in the Indian Ocean (2005-2021) (P. Sabarros, E. Romanov, E. Mollier and P. Bach)
- Oceanic whitetip
- Pelagic thresher
- Bigeye thresher
- Other species
  - IOTC-2022-WPEB18-19: Update on the CPUE standardization of the blue shark caught by the Taiwanese large-scale tuna longline fishery in the Indian Ocean (X. H. Wu and W. P. Tsai)
  - IOTC-2022-WPEB18-20: Update on the CPUE standardization of the shortfin mako shark caught by the Taiwanese large-scale tuna longline fishery in the Indian Ocean (X. H. Wu and W. P. Tsai)

### 7.2. Stock assessment model for scalloped hammerhead shark (all)

- IOTC-2022-WPEB18-20: A preliminary stock assessment of Scalloped hammerhead shark in the Indian Ocean (Z. Geng)

### 7.3. Review of the proposed stock assessment of scalloped hammerhead shark (IOTC Secretariat)

### 7.4. Recommendation and executive summaries (all)

- IOTC-2022-WPEB18-18: Preliminary recovery plan for scalloped hammerhead in the Indian Ocean (C. Rigby)

## 8. NEW INFORMATION ON BIOLOGY, ECOLOGY, FISHERIES AND ENVIRONMENTAL DATA RELATING TO ECOSYSTEMS AND BYCATCH SPECIES (Chair)

### 8.1. Review new information on the environment and ecosystem interactions and modelling, including climate change issues affecting pelagic ecosystems in the IOTC area of responsibility (all)

- Ecosystems and climate  
Information papers:
  - IOTC-2022-WPEB18-INF12: Unintended effects of single-species fisheries management (M. Tolotti, P. Guillotreau, F. Forget, M. Capello, L. Dagorn)
  - IOTC-2022-WPEB18-INF13: Predicting bycatch hotspots in tropical tuna purse seine fisheries at the basin scale (L. Mannocci, F. Forget, M. Tolotti, P. Bach, N. Bez, H. Demarcq, D. Kaplan, P. Sabarros, M. Simier, M. Capello, L. Dagorn)
  - IOTC-2022-WPEB18-INF19: A decision support tool for integrated fisheries bycatch management (E. Gilman, M. Hall, H. Booth, T. Gupta, M. Chaloupka, H. Fennell, M. J. Kaiser, D. Karnad, E. J. Milner-Gulland)
- Impact of gears
  - IOTC-2022-WPEB18-23: An update on best practices onboard French and Italian tropical tuna purse seiners of the Atlantic and Indian Oceans: outcomes and ongoing projects (G. Wain, A. Maufroy and M. Goujon)
- Report on the gillnet bycatch mitigation workshop
  - IOTC-2022-WPEB18-INF11: Report of the multi-taxa gillnet bycatch mitigation workshop
- Report on the Second ecoregions workshop
  - IOTC-2022-WPEB18-22: Second IOTC Ecoregion Workshop: identification of regions in the IOTC convention area to inform the implementation of the ecosystem approach to fisheries management (M.

J. Juan Jordá, A. E. Nieblas, H. Murua, E. Chassot, P. de Bruyn, D. Hayes, F. Marsac, U. Shahid, P. Thoya, S. Tsuji, E. Andonegi, M. Green, T. Kitakado, L. Nelson, M. Khan, L. Ramos Alonso, J. Moss, L. Lopetegui, Z. Hoque, L. Pierre, A. Sheikh)

Information papers:

- IOTC-2022-WPEB18-INF14: Pre-workshop analysis in preparation for the 2022 IOTC Ecoregions Workshop: “Identification of regions in the IOTC convention area to inform the implementation of the ecosystem approach to fisheries management” (A. E. Nieblas, H. Murua, P. De Bruyn, E. Chassot, F. Fiorellato, M. J. Juan Jordá)

## 9. BYCATCH, SPECIES INTERACTIONS, AND ECOSYSTEM RISK ASSESSMENTS FOR OTHER SHARK SPECIES, MARINE MAMMALS, SEABIRDS, AND SEA TURTLES

### 9.1. All bycatch species (all)

Information papers:

- IOTC-2022-WPEB18-INF16: Squid fishing in the northwest Indian Ocean - clear as ink (M. T. Trygg)

### 9.2. Other sharks and rays

Information papers:

- IOTC-2022-WPEB18-INF15: High bycatch rates of manta and devil rays in the 'small-scale' artisanal fisheries of Sri Lanka (D. Fernando and J. D. Stewart)
- IOTC-2022-WPEB18-INF21: Harnessing stakeholder knowledge for the collaborative development of mobulid bycatch mitigation strategies in tuna fisheries (M. R. Cronin, D. A. Croll, M. A. Hall, N. Lezama-Ochoa, J. Lopez, H. Murua, J. Murua, V. Restrepo, S. Rojas-Perea, J. D. Stewart, J. L. Waldo and G. Moreno)

### 9.3. Marine mammals (all)

- Review new information on marine mammal biology, ecology, fisheries interactions and bycatch mitigation measures (all);
- IOTC-2022-WPEB18-24: Bycatch of deep dwelling cetacean in gillnet fisheries of Pakistan (M. Moazzam)

Information papers

- IOTC-2022-WPEB18-INF20: Sightings of whales in the Northern Arabian Sea along the coast of Pakistan in 2021 (M. Moazzam and R. Nawaz)

### 9.4. Seabirds (all)

- Review new information on seabird biology, ecology, fisheries interactions and bycatch mitigation measures (all)
- IOTC-2022-WPEB18-25: Conservation Status of Albatrosses and Petrels and Advice on Reducing their Bycatch in IOTC Longline Fisheries (S. Jimenez)
- IOTC-2022-WPEB18-26: Proposal to develop an IOTC seabird workplan (D. Gianuca)
- Review of mitigation measures in Resolution 12/06 (all)
- IOTC-2022-WPEB18-INF18: Towards mitigation of seabird bycatch in longline pelagic fisheries: do current mitigation measures have an effect? (S. Jiménez, A. Domingo, H. Winker, D. Parker, D. Gianuca, T. Neves, R. Coelho, S. Kerwath)

### 9.5. Sea turtles

- Review new information on marine turtle biology, ecology, fisheries interactions and bycatch mitigation measures (all)
- IOTC-2022-WPEB18-28: Modelling the distribution of sea turtles in the Western Indian Ocean based on bycatch data from the French longline and purse seine fisheries (J. Monsinjon, P. Sabarros, P. Bach, J. Bourjea and S. Bonhommeau)
- Letter of Understanding between IOTC and IOSEA on the Conservation and Management of Marine Turtles

- IOTC-2022-WPEB18-27: Draft Letter of Intent: Cooperation between the Indian Ocean Tuna Commission and the Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia (IOSEA)

#### **10. WPEB PROGRAM OF WORK (RESEARCH AND PRIORITIES)**

- 10.1. Revision of the WPEB Program of Work 2023-2027 (Chairperson and IOTC Secretariat)
  - IOTC-2022-WPEB18-09: WPEB Program of Work 2023-2027 (IOTC Secretariat)
- 10.2. Development of priorities for an Invited Expert at the next WPEB meeting (Chairperson)

#### **11. OTHER MATTERS (Chair)**

- 11.1. Review of the draft, and adoption of the Report of the 18<sup>th</sup> Session of the (Chairperson)