



**CONVENTION ON
MIGRATORY
SPECIES**

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BYCATCH AND OTHER FISHERIES-INDUCED MORTALITY

(Prepared by the Secretariat)

Summary:

This document reports on progress made in implementing Decisions 14.31–14.34 *Bycatch and Other Fisheries-induced Mortality* and addresses the emerging issue of bycatch in fisheries for croaker maw. The document proposes the adoption of new Decisions and amendments to Resolution 12.22 *Bycatch*.

The attached draft Resolution and Decisions would support the achievement of Targets 3.1, 3.4, 4.1 and 5.3 of the Samarkand Strategic Plan for Migratory Species 2024–2032.

BYCATCH AND OTHER FISHERIES-INDUCED MORTALITY

Background

1. Bycatch remains one of the primary causes of mortality for many CMS-listed aquatic species. Despite the obligations outlined in Article III (5) and III (4c), numerous species listed in Appendix I of CMS (which are endangered and require strict protection) are still subject to fisheries-induced mortality, and commercial and consumptive use. Minimizing bycatch of Appendix I-listed species and managing bycatch of Appendix II-listed species to reduce fisheries mortality to sustainable levels is integral to fulfilling one of the overarching goals of CMS: to take action to avoid any migratory species becoming endangered.
2. COP14 adopted the following Decisions on this issue:

14.31 Directed to Parties

Parties are requested to:

- a) *take account of the Food and Agriculture Organization of the United Nations (FAO) Technical Guidelines to prevent and reduce bycatch of marine mammals in capture fisheries and the associated Technology Fact Sheets (2023) in addition to the best available scientific advice for the fisheries concerned, and implement effective bycatch mitigation measures for marine mammals, as appropriate to their fishing operations including the introduction of alternative gears;*
- b) *apply the recommendations included in Drynan and Baker (2023), Technical mitigation techniques to reduce bycatch of sharks, provided in Annex 2 to UNEP/CMS/COP14/Doc.27.1.1, with emphasis on:*
 - i. *applying tailored solutions with timebound action plans for individual fisheries,*
 - ii. *considering species specificity and management objectives including for individual fisheries,*
 - iii. *balancing target catch and minimizing bycatch while accounting for unintended impacts,*
 - iv. *techniques need to be assessed for the species and regions where they will be deployed, and the involvement of the fishing industry must be encouraged and actively sought early in the process,*
 - v. *if capture cannot be avoided, then efforts need to be made to allow escape prior to hauling in the gear,*
 - vi. *if escape prior to hauling is not possible, efforts need to be made to reduce at-vessel mortality and increase post-release survival,*
 - vii. *collecting detailed data on shark species movements and life history characteristics as a matter of priority,*
 - viii. *capitalizing on the knowledge of and support from the fishing industry and fisheries management and advisory bodies, that are necessary for developing and deploying effective bycatch mitigation and post release survival strategies, and*
 - ix. *supporting fishers to modify fishing techniques as well as ensuring appropriate regulatory measures with oversight, and adequate penalization for lack of compliance; and*
- c) *report to the Conference of the Parties at its 15th meeting on the implementation of Decision 14.31 (b) through their National Reports.*

14.32. Directed to Parties that are Range States of the Baltic Proper Harbour Porpoise

Parties that are Range States of the Baltic Proper Harbour Porpoise are requested to:

- a) *urgently implement time-bound action plans and measures for effective bycatch mitigation; and*
- b) *report to the Conference of the Parties at its 15th meeting on the implementation of Decision 14.32 (a) through their National Reports.*

14.33. Directed to the Scientific Council

The Scientific Council is requested to, subject to the availability of external resources:

- a) *identify regions where reviews of relative levels of bycatch of CMS-listed marine mammals and marine turtles in commercial and artisanal fisheries would be a priority and/or beneficial; collaborate with all relevant organizations including fisheries management bodies to develop regional reviews with a view to reducing the levels of bycatch of all CMS-listed marine mammals and turtles in commercial and artisanal fisheries; identify and prioritize fisheries and areas in which adverse impacts of bycatch are highest for CMS-listed marine mammals and turtles; cooperate with the relevant organizations, including fisheries bodies to develop the most appropriate bycatch mitigation measures for fisheries of highest priority; and develop appropriate bycatch mitigation measures with associated timebound action plans;*
- b) *in collaboration with the IOSEA Marine Turtle MOU and, if possible, the Inter-American Convention for the Protection and Conservation of Sea Turtles and the Caribbean Environment Programme, review current knowledge about existing measures to reduce and mitigate bycatch of marine turtles for both commercial fisheries and artisanal fisheries, and make recommendations to Parties and the Signatory States of the IOSEA Marine Turtle MOU on the most effective and appropriate measures to reduce and mitigate bycatch, while ensuring that recommended measures do not act to the disadvantage of other CMS-listed marine species;*
- c) *in collaboration with the Advisory Committee of the Sharks MOU, review and appraise current data and knowledge regarding the levels of fisheries-induced mortality of CMS- and Sharks MOU-listed shark and ray species and to prepare recommendations on reducing fisheries-induced mortality;*
- d) *in collaboration with other relevant stakeholders, ensure cross-referencing with seabird bycatch work, to ensure consideration of cross-taxa implications, and identify opportunities for further collaboration on addressing fisheries-induced mortality across taxa;*
- e) *to assess the experience gained from bycatch mitigation strategies of: marine mammals as developed for COP13, sharks and rays as developed for COP14, seabirds as developed by AEWA and the ACAP Seabird Bycatch Working Group in collaboration with CMS, and on marine turtles as developed as part of paragraph 14.33(b), and any new relevant scientific information which arises, prepare a synthesis report on all species and an update of Resolution 12.22 on Bycatch for COP15; and*
- f) *report to the Conference of the Parties at its 15th meeting on the progress in implementing Decisions 14.33 (a) –(c).*

14.34 Directed to the Secretariat

The Secretariat shall, subject to the availability of external resources:

- a) *support the Scientific Council with the implementation of Decision 14.33; and*
- b) *engage with the International Whaling Commission (IWC), Food and Agriculture Organization (FAO) of the United Nations, Regional Fisheries Bodies (RFBs), and Regional Seas Conventions (RSCs) and Action Plans regarding bycatch of CMS-listed aquatic species.*

Progress in implementing Decisions on bycatch and other fisheries-induced mortality

Cetaceans

3. Parties implemented Decision 14.32 (a), making use of the Jastarnia Group established under ASCOBANS, which is tasked with overseeing the implementation of the Recovery Plan for Baltic Proper Harbour Porpoises¹ (Jastarnia Plan).
4. The 2025 Progress Report on the Jastarnia Plan² highlights that, while awareness of the critical status of the population remains high, there has been limited progress in implementing bycatch mitigation measures. A key development was the entry into force of mandatory pinger use in Swedish waters south of Skåne (ICES Area 24) as of October 2024. Although this measure primarily benefits the Belt Sea population, it may also help to reduce risks to the Baltic Proper population. In parallel, the German Government has published a comprehensive proposal on management measures for static net fisheries in the German Baltic Exclusive Economic Zone (EEZ). This initiative is expected to provide the basis for further national mitigation efforts.
5. Despite these national-level initiatives, the Jastarnia Group notes that discussions at regional level, including within the framework of the Baltic Sea Fisheries Forum (BALTFISH), have not yet resulted in strengthened joint commitments. Continued political and procedural obstacles remain a challenge to achieving a coordinated regional mitigation response, and the large-scale bycatch mitigation measures that are necessary to ensure population survival are still lacking.
6. Additionally, the International Council for the Exploration of the Sea (ICES) published a 'technical service' paper, *EU request on alternative measures to prevent bycatch of the harbour porpoise in the Baltic Sea*,³ in August 2024, and 'special request advice', *EU request on support for the implementation of the Action Plan for harbour porpoise in the Baltic Sea*,⁴ in March 2025. Parties that are Range States of the Baltic Proper harbour porpoise are encouraged to review these ICES publications and to use them in developing further bycatch mitigation measures.
7. At its second meeting in February 2025, the Joint Bycatch Working Group of ACCOBAMS and ASCOBANS made recommendations to urgently implement and strengthen national plans of action, regional and sub-regional cooperation, and harmonized data reporting and monitoring to reduce or eliminate cetacean bycatch, particularly for the Baltic Proper, Black Sea and Iberian harbour porpoise populations. Recommendations for measures to prevent and mitigate bycatch included technological improvements, the use of alternative (more selective) gear, shifting of fishing effort, and monitoring the performance of and compliance with mitigation measures. The Working Group also recognized the need to better engage fishers in bycatch mitigation from the start, including transfer of knowledge, encouraging the adoption of good practices and contributions to the prevention and monitoring of bycatch and careful release of entangled animals. The full list of recommendations is available on the ASCOBANS website.⁵

¹ <https://www.ascobans.org/en/document/ascobans-recovery-plan-baltic-harbour-porpoises>

² <https://www.ascobans.org/en/document/progress-report-implementation-jastarnia-plan-august-2025>

³ ICES. 2024. EU request on alternative measures to prevent bycatch of the harbour porpoise (*Phocoena phocoena*) in the Baltic Sea. In Report of the ICES Advisory Committee, 2024. ICES Advice 2024, sr.2024.12. <https://doi.org/10.17895/ices.advice.26868907>

⁴ ICES. 2025. Support for the implementation of the Action Plan for Harbour porpoise in the Baltic Sea (Baltic Proper). Replacing advice provided in December 2024. In Report of the ICES Advisory Committee, 2025. ICES Advice 2025, sr.2024.20. <https://doi.org/10.17895/ices.advice.28616360>

⁵ <https://www.ascobans.org/en/document/recommendations-2nd-meeting-joint-bycatch-working-group-accobams-and-ascobans>

Marine Turtles

8. In response to Decision 14.33 (b), a review of turtle bycatch mitigation measures was prepared by the COP-appointed Councillor for Bycatch, with support from the Secretariat. The work was undertaken in collaboration with the IOSEA Marine Turtle MOU.⁶ Signatories to the MOU adopted the same mandate at their 9th Meeting (MOS9) in the Work Programme 2024-2028 (see [CMS/IOSEA/MOS9/Outcome 9.1](#)). The report fulfils the requests of both CMS Parties and Signatory States to the IOSEA Marine Turtle MOU to assess current knowledge on turtle bycatch mitigation and provides recommendations on the most effective and appropriate measures.
9. The report, *A review of technical and operational measures to mitigate bycatch of marine turtles in commercial fisheries (Breimann and Baker, 2025)*, is provided as [UNEP/CMS/COP15/Inf.25.1.1](#), and a summary and recommendations can be found in Annex 1. It compiles and evaluates existing bycatch mitigation techniques for turtles used across different fisheries and regions, and considers their effectiveness, practicality and implications for other marine species. It includes assessments for commercial fisheries, including technical and operational measures across four key gear types: trawl, purse seine, setnet/gillnet and longline gear. The review identifies the most effective mitigation techniques based on the best available evidence, and highlights considerations for their practical implementation.
10. In trawl fisheries, Turtle Excluder Devices (TEDs) are seen as effective in minimizing turtle bycatch. They are widely accepted by fishers, especially in prawn and shrimp fisheries, in part due to improvements in product quality.
11. Purse seine fisheries generally have very low levels of turtle bycatch, and most turtles captured can be released alive. Because many purse seine fisheries set gear around Fish Aggregating Devices (FADs), recent mitigation efforts have focused on improving FAD design, promoting the use of biodegradable materials and non-entangling constructions. Decisions on FADs and a report on the link between FADs and marine debris can be found in [UNEP/CMS/COP15/Doc.25.1.3](#).
12. Gillnet gear, also known as set net gear, is a significant source of turtle mortality. Recent work has focused on increasing the visibility of gear for turtles using LED illumination, which has shown to be effective in some fisheries but not in all.
13. In pelagic longline fisheries, using large circle hooks in place of J-hooks can significantly reduce the internal ingestion of hooks, which greatly facilitates post-capture release and reduces injury and mortality. The type of bait used also has a significant influence on bycatch rates, with fish bait consistently associated with reduced sea turtle bycatch compared to squid bait. Capture probabilities are lowest when both measures are used together. For demersal longline gear, no effective mitigation strategies are currently available.
14. Trailing gear still attached to hooks that cannot be removed from sea turtles should be cut as close to the hook as possible to decrease post-release mortality.

⁶ Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia

15. Sea turtles are also at risk of gas embolisms and decompression sickness, resulting from rapid, forced ascents during gear hauling, especially in trawl and gillnet fisheries. Mortality risk increases with greater depth, haul duration and faster ascent speeds; although mortality has been recorded even at relatively shallow depths. Mitigation measures include the use of TEDs to limit retention in trawls, and the reduction of haul speeds and gear soak times.

Sharks and Rays

16. In response to Decision 14.33 (c), work was initiated in collaboration with the Advisory Committee of the Sharks MOU to review and appraise current data and knowledge on fisheries-induced mortality of shark and ray species listed on the appendices of CMS and the Sharks MOU. It was not possible to commission a draft assessment within the current triennium, but this work will continue into the next period, with a view to developing targeted recommendations for reducing fisheries-induced mortality based on the best available data.

Seabirds

17. Work to implement Decision 14.33 (d) was initiated in collaboration with Birdlife International and is expected to continue during the next triennium.

Limited progress on review of priority areas and synthesis report

18. Due to limited resources and the short intersessional period, the activities foreseen under Decision 14.33 (a) directed at the CMS Scientific Council could not be implemented. It is proposed that this work be carried forward to the next triennium.
19. In addition, implementation of Decision 14.33 (e) could not be completed within the current triennium. It is therefore proposed that the planned synthesis of bycatch mitigation strategies for marine mammals, sharks and rays, seabirds, and marine turtles will be carried forward. This will include the new material on marine turtles developed during the current period under Decision 14.33 (b). The final report will be prepared in the next triennium, subject to the availability of resources, with plans to publish it as part of the CMS Technical Series.

Engagement with other organizations regarding bycatch of CMS-listed aquatic species

20. In accordance with Decision 14.34 (b), the CMS Secretariat and the COP-appointed Councillor for Bycatch, Barry Baker, have been in regular communication with the IWC, FAO, relevant Regional Fisheries Bodies (RFBs) and Regional Seas Conventions (RSCs), and have actively participated in expert groups and workshops, requests for data and technical input, and the coordination of ongoing reviews and assessments. This included continued involvement in the IWC's Bycatch Mitigation Initiative, with the Secretariat serving in the Bycatch Standing Working Group and contributing to the Expert Panel. The Secretariat is also actively engaged in the Sustainable Ocean Initiative (SOI) coordinated by the Secretariat of the Convention on Biological Diversity (CBD). It participated in the Intersessional Workshop of the SOI Global Dialogue with Regional Seas Organizations and Regional Fishery Bodies held in Théoule-sur-Mer, France, and the 4th meeting of the SOI Global Dialogue in the Republic of Korea. The COP-appointed Councillor for Bycatch and the Secretariat also contributed to a joint workshop involving

ICES, CIBBRiNA,⁷ REDUCE⁸ and Marine Beacon on mitigation measures to minimize marine turtle bycatch. The ASCOBANS Secretariat is a member of the Stakeholder Advisory Board for the CIBBRiNA EU LIFE project and the CMS Secretariat is a member of the External Advisory Board for the EU Horizon REDUCE project.

Emerging Issue: Bycatch in fisheries for croaker maw

21. A significant concern is the increasing demand for, and value of, fish maw (swim bladders), mainly from Sciaenid (croaker and drum) species.⁹ Researchers and international organizations, including IUCN¹⁰ and the IWC,¹¹ are increasingly concerned that expanding and intensifying croaker maw fisheries, typically using gillnets, are seriously impacting not only croaker species, but other marine taxa caught as bycatch.¹²
22. At least one cetacean species, the vaquita (*Phocoenidae sinus*), is on the verge of extinction, with fewer than 10 individuals remaining,¹³ due to ongoing illegal fishing for and illegal international trade in totoaba (*Totoaba macdonaldi*) maws. This experience serves as a warning for CMS-listed Irrawaddy dolphin (*Orcaella brevirostris*, App. I & App. II), already impacted by maw fisheries,¹⁴ and other small cetacean species that overlap spatially with high-value croaker species, including Indo-Pacific finless porpoise (*Neophocaena phocaenoides*, App. II), narrow-ridged finless porpoise (*N. asiaeorientalis*, App. II), Australian snubfin dolphin (*O. heinsohni*, App. II), Indo-Pacific humpback dolphin (*Sousa chinensis*, App. II) and Franciscana (*Pontoporia blainvillei*, App. I & App. II). CMS-listed dugongs (*Dugong dugon*, App. II) and leatherback sea turtles (*Dermochelys coriacea*, App. I) are also bycaught in maw fisheries along with other turtle species and sharks and rays, including wedgefishes and guitarfishes.¹⁵
23. There is an urgent need, and increasing willingness, for relevant organizations to collaborate to better understand the scope and impact of the maw trade on species subject to both direct and incidental catch in these fisheries so that targeted regulations and policies can be developed to foster sustainable fishing and trade practices.

⁷ CIBBRiNA – the Coordinated Development and Implementation of Best Practice in Bycatch Reduction in the North Atlantic, Baltic and Mediterranean Regions. <https://cibbrina.eu>

⁸ REDUCE – Reducing bycatch of threatened megafauna in the East Central Atlantic

⁹ Seah, Y.G. and Wainwright, B.J. (2025). 'An Assessment of the Fish Maw Trade in Singapore and Malaysia Reveals Threatened Species and Highlights the Need for a More Complete Assessment of the Conservation Status of the World's Fishes'. *Conservation Letters*, 18(3), p.e13115. <https://onlinelibrary.wiley.com/doi/pdfdirect/10.1111/conl.13115>

¹⁰ International Union for Conservation of Nature (IUCN) (2021). Controlling and monitoring trade in croaker swim bladders to protect target croakers and reduce incidental catches of threatened marine megafauna. [WCC-2020-Res-132-EN](https://www.iucn.org/conservation/2020/12/2020-Res-132-EN)

¹¹ International Whaling Commission Scientific Committee (2024). Report of the Scientific Committee (SC69B). Bled, Slovenia, 22 April – 3 May 2024.

https://archive.iwc.int/pages/view.php?search=%21collection73&k=&modal=&display=list&order_by=title&offset=0&per_page=240&archive=&sort=DESC&restypes=&recentdaylimit=&foredit=&noreload=true&access=&ref=22242#

¹² Amepou, Y., Chin, A., Foale, S., Sant, G., Smailes, O., & Grant, M. I. (2024) Maw money, maw problems: A lucrative fish maw fishery in Papua New Guinea highlights a global conservation issue driven by Chinese cultural demand. *Conservation Letters*, e13006. <https://doi.org/10.1111/conl.13006>

¹³ Cárdenas-Hinojosa, G., Jaramillo-Legorreta, A., Bonilla-Garzon, A., Nieto-García, E., Taylor, B.L., Mesnick, S.L., Henry, A., Sevilino, N.P., Rojas-Bracho, L., Booth, C. and Thomas, L. (2024). Survey report for vaquita research 2024. IUCN Cetacean Specialist Group website. <https://iucn-csg.org/wp-content/uploads/2024/12/Reporte-Crucero-Vaquita-2024-Ingles-Final.pdf>

¹⁴ Smith, B. D., Mansur, E. F., Shamsuddoha, M., & Billah, G. M. M. (2023). Is the demand for fish swim bladders driving the extinction of globally endangered marine wildlife? *Aquatic Conservation: Marine and Freshwater Ecosystems* 33(12), 1615-1620. <https://doi.org/10.1002/aqc.4025>

¹⁵ Grant, M. I., Amepou, Y., & Jacobs, S. (2022). Assessment of target and non-target species catch rates in the Kikori fish maw fishery and local ecological knowledge of locally threatened dolphin species. Final report prepared for the Secretariat of the Pacific Regional Environmental Program (SPREP), AP_2/39 Assessment of by-catch of threatened marine species by small scale fishers and mitigation options in the Kikori River Delta, Papua New Guinea. pp 1-52. [https://library.sprep.org/sites/default/files/2023-02/Assesment Kikori Swimbladder By-Catch Survey report PNG 0.pdf](https://library.sprep.org/sites/default/files/2023-02/Assesment%20Kikori%20Swimbladder%20By-Catch%20Survey%20report%20PNG%200.pdf)

Discussion and analysis

24. Several activities under Decision 14.33 remain incomplete and will be carried forward into the next triennium. These include Decision 14.33 (a) on identifying areas with high levels of bycatch of marine mammals and marine turtles, Decision 14.33 (c) on assessing levels of fisheries-induced mortality of CMS- and Sharks MOU-listed shark and ray species, and Decision 14.33 (e) on the planned synthesis report on bycatch mitigation strategies.
25. Technical resources on marine mammal and shark bycatch have improved, and the turtle bycatch review, which supports Parties in targeting measures and prioritizing future work, has helped to address the gap in consolidated guidance for turtle bycatch mitigation across gear types and regions. The summary and recommendations of the turtle bycatch review can be found in Annex 1, while the full review can be found as [UNEP/CMS/COP15/Inf.25.1.1](#).
26. Cross-taxa collaboration, particularly with seabird bycatch initiatives and tuna Regional Fisheries Management Organizations (t-RFMOs), continues to progress, strengthening multispecies approaches to bycatch reduction.
27. The expansion of croaker maw fisheries poses a critical emerging threat, with bycatch impacts on species such as vaquita, dugongs and turtles. International collaboration, particularly with IWC, FAO and CITES, will be essential to address this issue and develop effective trade and fisheries regulations.
28. Effective bycatch mitigation requires a structured, precautionary approach that addresses ecological, operational and socioeconomic dimensions. The mitigation hierarchy, originally developed in the context of terrestrial conservation, has been increasingly applied in fisheries management to reduce impacts on non-target species, including CMS-listed sharks and rays, marine mammals, seabirds and turtles.¹⁶ The hierarchy consists of five sequential levels: Avoid, Minimize, Remediate, Compensate and Research. Avoidance, such as spatial closures or alternative gear, is the preferred option. Where avoidance is not possible, minimization and remediation focus on reducing capture and improving post-capture survival. Compensation may be used to offset residual impacts, while research supports all stages by informing and evaluating mitigation strategies. Applying this framework can help Parties identify and implement more effective bycatch measures for CMS-listed species.
29. To incorporate recommendations on addressing bycatch in the context of Art III (5) for all aquatic species subject to bycatch, the Secretariat has prepared an amended version of Resolution 12.22 *Bycatch*. At COP12, all existing resolutions on bycatch were consolidated into one, eliminating duplication, but with little attempt to further streamline or rationalize. The proposed revision seeks to improve clarity, coherence and readability. References are made to CMS Articles III (4) and III (5). Technical details and guidance were separated from the main text and are now provided in an Annex to the Resolution in order to improve clarity and maintain the document's long-term applicability.

¹⁶ Outlined for example in: Cronin, M. R., Amaral, J. E., Jackson, A. M., Jacquet, J., Seto, K. L., & Croll, D. A. (2023). Policy and transparency gaps for oceanic sharks and rays in high seas tuna fisheries. *Fish and Fisheries*, 24(1), 56–70. <https://doi.org/10.1111/faf.12710>

30. A definition of the term “bycatch” for the purpose of this Resolution has been included. The FAO, in its report, *A global assessment of fisheries bycatch and discards* (1994),¹⁷ notes that the term has long suffered from definitional ambiguity. While the term is widely used across international biodiversity and fisheries frameworks, its meaning varies with institutional context.
- The FAO definition of bycatch provided by Roda et al (2019) in the report, *A third assessment of global marine fisheries discards*,¹⁸ is as follows: “Bycatch is the catch of organisms that are not targeted. This includes organisms that are outside legal-size limits, over-quotas, threatened, endangered and protected species, and discarded for whatever other reasons, as well as non-targeted organisms that are retained and then sold or consumed.” In FAO projects dealing with bycatch – REBYC III¹⁹, for example – bycatch is divided into the following components:
- a) Retained bycatch – retained catch of non-targeted organisms (landed bycatch or by-product), including juveniles of the target species, but excluding endangered, threatened and protected (ETP) species.
 - b) Unwanted bycatch – non-desired and discarded portion of the catch because of economic, legal or personal considerations. These animals are thrown back (alive or dead) into the sea and can also include juveniles of the target species.
 - c) Incidental bycatch of ETP species.
31. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) defines bycatch more narrowly and applies three different definitions across its publications: “commercially undesirable species caught during a fishing process”, “the incidental capture of non-target species” and “the portion of a commercial fishing catch that consists of marine animals caught unintentionally”.²⁰ The Convention on Biological Diversity (CBD) has not published a standalone formal definition of bycatch and often refers to IPBES terminology in its documents. The Convention on International Trade in Endangered Species (CITES) refers to bycatch in species-specific contexts but relies on partners such as FAO for technical framing.
32. This definitional diversity complicates measurement, management and mitigation of bycatch. The preamble of Resolution 12.22 *Bycatch* acknowledges that multiple interpretations across organizations and jurisdictions hinder coherent implementation. Without a CMS-specific definition, Parties may find it difficult to apply the Resolution consistently. Establishing a clear, context-specific definition under CMS will sharpen the scope of action and improve efforts to address bycatch of CMS-listed species.
33. The proposed amendments and the draft Resolution can be found in Annex 2.

¹⁷ Alverson, D. L., Freeberg, M. H., Murawski, S. A., & Pope, J. G. (1994). *A global assessment of fisheries bycatch and discards*. FAO Fisheries Technical Paper No. 339. Rome: Food and Agriculture Organization of the United Nations.

¹⁸ Pérez Roda, M.A. (ed.), Gilman, E., Huntington, T., Kennelly, S.J., Suuronen, P., Chaloupka, M. and Medley, P. 2019. *A third assessment of global marine fisheries discards*. FAO Fisheries and Aquaculture Technical Paper No. 633. Rome, FAO. 78 pp. Licence: CC BY-NC-SA 3.0 IGO.

¹⁹ Strategies, technologies and social solutions to manage bycatch in tropical Large Marine Ecosystem Fisheries, <https://www.thegef.org/projects-operations/projects/10857>

²⁰ Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. (n.d.). *Bycatch*. In IPBES Glossary (accessed on 05 September 2025)

Recommended actions

34. The Conference of the Parties is recommended to:
- a) note the summary and recommendations by Breimann and Baker (2025) in *A Review of Technical and Operational Measures to Mitigate Bycatch of Marine Turtles in Commercial Fisheries*, contained in Annex 1 of this document;
 - b) adopt the draft amendments to Resolution 12.22 *Bycatch* contained in Annex 2 of this document;
 - c) adopt the draft Decisions contained in Annex 3 of this document; and
 - d) delete Decisions 14.31–14.34.

ANNEX 1

A REVIEW OF TECHNICAL AND OPERATIONAL MEASURES TO MITIGATE BYCATCH OF MARINE TURTLES IN COMMERCIAL FISHERIES**L. Breimann & G. B. Baker****SUMMARY AND RECOMMENDATIONS***(The full report can be found in [UNEP/CMS/COP15/Inf.25.1.1](#))***Executive Summary**

Marine turtles are incidentally killed in a range of fisheries throughout the world and levels of global sea turtle bycatch have been estimated at between 85,000 and 250,000 individuals annually, mainly by pelagic fisheries targeting tuna and billfish. Turtles are killed when they become hooked and drown in longline fisheries, become entangled in netting used in trawl, purse seine or gillnet fisheries, or suffer stress and trauma during retrieval of fishing gear when animals are captured. This bycatch in active fishing gear is one of the biggest threats to marine turtle populations. As these species are long-lived with high adult survival and low breeding productivity, anthropogenic activities that increase mortality levels, such as fisheries bycatch, can have significant, long-term population impacts.

This review assesses technical and operational bycatch mitigation measures across four major gear types – trawl, purse seine, set and gillnet, and longline fisheries – drawing from peer-reviewed literature and grey literature.

Trawl fisheries pose a major threat to sea turtles due to their low selectivity, particularly in tropical shrimp fisheries. Turtle Excluder Devices (TEDs) are among the most effective mitigation tools, reducing turtle bycatch by up to 97% in some regions. TED effectiveness depends on correct design and installation, with critical elements being escape opening size and bar spacing. Hard grids are more effective than flexible grids in excluding turtles, however flexible grids offer advantages for smaller vessels. Long-term success requires industry collaboration and compliance, together with training, monitoring and enforcement.

Purse seine fisheries have relatively low turtle bycatch mortality, with most individuals released alive and unharmed. Risks increase with sets on drifting Fish Aggregating Devices (FADs), which can entangle turtles, and recent mitigation efforts have focused on improving FAD design, promoting the use of biodegradable materials and non-entangling constructions. Avoiding the encirclement of turtles during fishing, and crew training on safe handling techniques, enhance post-capture survival.

Gillnet fisheries, especially in small-scale coastal operations, are among the most significant sources of turtle bycatch, with high mortality rates reported. Net illumination using LEDs (green, violet, UV) is one of the most effective and tested mitigation measures with bycatch reductions of up to 93.3% reported in some studies, without significantly affecting target catch. However, efficacy varies across regions and fisheries, and economic viability may impact adoption. Additional visual strategies (e.g., predator models, high-contrast panels) show potential but require further field validation. Adoption remains low due to limited field testing, economic concerns and lack of regulatory frameworks.

Pelagic longline fisheries are a major source of sea turtle bycatch, particularly for loggerhead and leatherback turtles. The use of large circle hooks and fish rather than squid baits are the most effective known strategies, reducing sea turtle catch rates by 55-90%. Capture probabilities are lowest when both measures are used together. Circle hooks significantly reduce deep hooking and increase post-release survival. Demersal longline fisheries, however, currently lack any effective mitigation measures for sea turtles.

Trailing gear attached to hooks which cannot be safely removed from sea turtles should be cut as close to the hook as possible to decrease post-release mortality.

Sea turtles are also at risk of gas embolisms and decompression sickness, resulting from rapid, forced ascents during gear hauling, especially in trawl and gillnet fisheries. Mortality has been recorded even at relatively shallow depths of 19-37m. However, mortality risk increases with greater depth, haul duration, and faster ascent speeds, with mortality ranging from 20–50% depending on severity and handling. Mitigation measures include the use of TEDs to limit retention in trawls, reducing haul speeds and gear soak times.

Overall, the review confirms that effective turtle bycatch reduction is fishery-specific, as has been found for mitigation of bycatch of other non-target species including seabirds, marine mammals and sharks. Measures that are highly effective in one region or gear type may be ineffective or impractical elsewhere. Selecting measures to minimize marine turtle bycatch should ensure their implementation does not increase bycatch of other non-target species such as seabirds, marine mammals or sharks. Tailored, evidence-based approaches, combined with stakeholder collaboration, enforcement and training, are essential for successful implementation and long-term conservation outcomes.

Recommendations

Parties are encouraged to:

- Adopt fishery-specific mitigation strategies that recognize that effective turtle bycatch mitigation measures vary by fishery type and region. Management efforts should tailor approaches accordingly, based on the latest evidence.
- Use operational and technical mitigation measures for all fisheries where turtle bycatch is problematic.
- Develop and research best practice mitigation options to reduce marine turtle bycatch in fisheries deploying demersal longline gear.
- Engage with the fishing industry to ensure design, development and effective implementation of practical solutions, which are essential to creating good outcomes. For mitigation to be considered effective, a significant reduction in bycatch mortality needs to be demonstrated, together with maintenance of target catch quality and quantity, while ensuring no negative effects on bycatch rates of other protected species.
- Adopt an adaptive approach to managing turtle bycatch in all fisheries. Operational characteristics of most fisheries are dynamic, and updating and improving knowledge of the biological and behavioural characteristics of target and bycatch species, including temporal and spatial overlap of bycatch species with fishing activities, should be continually evaluated to assess efficacy of bycatch mitigation solutions, and change these as appropriate.
- Use systematic monitoring and reporting as crucial tools for assessing and improving mitigation efforts for turtles in all fisheries.
- Include species- and fisheries-specific testing with adequate scientific rigour, and a quantitative target to enable efficacy assessment to determine mitigation efficacy.

ANNEX 2

PROPOSED AMENDMENTS TO RESOLUTION 12.22

NB. Proposed new text is underlined. Text to be deleted is ~~crossed out~~.

Text from Existing Resolution	Commentary	Clean New Text Proposed (including new numbering of operative paragraphs)
<u>BYCATCH AND OTHER FISHERIES-INDUCED MORTALITY</u>	Title amended	BYCATCH AND OTHER FISHERIES-INDUCED MORTALITY
<i>Recalling</i> previous related decisions of the Conference of the Parties including Resolution 6.2, Recommendation 7.2, Resolution 8.14, and, Resolution 9.18, and Resolution 10.14 on bycatch,	Repeal, outdated. Note that at COP12, all existing bycatch resolutions on bycatch were consolidated into this one, deleting repetition, but with little attempt to further streamline or rationalize; a task now undertaken.	-
<i>Acknowledging</i> the obligations of the global community to conserve natural resources through sustainable development, as underpinned by, inter alia, the United Nations Convention on the Law of the Sea, the Convention on Biological Diversity, the United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, the Commission on the Conservation of Antarctic Marine Living Resources and the Food and Agriculture Organization of the United Nations (FAO), especially through its Code of Conduct for Responsible Fisheries,	Repeal, not necessary.	-
<i>Recognizing</i> that bycatch has been highlighted as a priority threat to be mitigated in a number of CMS subsidiary agreements and memoranda of understanding,	Repeal, not necessary.	-

Text from Existing Resolution	Commentary	Clean New Text Proposed (including new numbering of operative paragraphs)
<p>Concerned that despite considerable progress on implementing bycatch mitigation measures to reduce the adverse impacts of fishing on <u>CMS-listed migratory species</u>, bycatch stillremains one of the major causes of mortality of listed <u>aquatic migratory species from human activities in the marine environment</u>,</p>	<p>Language updated.</p>	<p><i>Concerned</i> that despite considerable progress on implementing bycatch mitigation measures to reduce the adverse impacts of fishing on CMS-listed species, bycatch remains one of the major causes of mortality of aquatic migratory species,</p>
<p>Further Noting concerned that despite the progress made so far by the Parties, bycatch remains a key threat to aquatic species, especially those listed on Appendix I and Appendix II of the Convention (including seabirds, fish, turtles and aquatic mammals) and that significant additional efforts are required to <u>prevent ensure that bycatch is of for Appendix I-listed species and to reduced or controlled bycatch</u> to levels that do not threaten the conservation status of <u>Appendix II-listed these</u> species,</p>	<p>Retain. Duplications removed and language updated.</p>	<p><i>Noting</i> that significant additional efforts are required to prevent bycatch of Appendix I-listed species and to reduce bycatch to levels that do not threaten the conservation status of Appendix II-listed species,</p>
<p>Concerned that migratory aquatic species face multiple, cumulative and often synergistic threats with possible effects over vast areas, such as bycatch of species, over fishing, pollution, habitat destruction or degradation, marine noise impacts, hunting as well as climate change,</p>	<p>Repeal. Reference to cumulative threats included above.</p>	<p>-</p>
<p><i>Recognizing</i> that Article II of the Convention requires all Parties to take action to avoid any migratory species becoming endangered and, in particular, to endeavour to provide immediate protection for migratory species listed in Appendix I to the Convention, and to endeavour to conclude Agreements covering the conservation and management of migratory species listed in Appendix II,</p>	<p>Retain.</p>	<p><i>Recognizing</i> that Article II of the Convention requires all Parties to take action to avoid any migratory species becoming endangered and, in particular, to endeavour to provide immediate protection for migratory species listed in Appendix I to the Convention, and to endeavour to conclude Agreements covering the conservation and management of migratory species listed in Appendix II,</p>

Text from Existing Resolution	Commentary	Clean New Text Proposed (including new numbering of operative paragraphs)
Recognizing that Article III requires Parties to prevent, reduce or control factors that are endangering or are likely to further endanger species in Appendix I,	Repeal. Reflected in new preambular paragraphs below.	-
<u>Recalling Art. III (4.c) of the Convention, which calls upon Parties that are Range States of Appendix I-listed migratory species to, where feasible and appropriate, prevent, reduce or control factors endangering or likely to further endanger such species,</u>	New paragraph.	<i>Recalling</i> Art. III (4.c) of the Convention, which calls upon Parties that are Range States of Appendix I-listed migratory species to, where feasible and appropriate, prevent, reduce or control factors endangering or likely to further endanger such species,
<u>Further recalling Art. III (5) of the Convention, which obliges Range States of Appendix I-listed migratory species to prohibit the taking of animals belonging to such species, except for specific and limited purposes, namely scientific research, enhancement of propagation or survival, traditional subsistence use, or in extraordinary circumstances, with such exceptions being precise in content and restricted in space and time, and ensuring that any such taking does not operate to the disadvantage of the species,</u>	New paragraph.	<i>Further recalling</i> Art. III (5) of the Convention, which obliges Range States of Appendix I-listed migratory species to prohibit the taking of animals belonging to such species, except for specific and limited purposes, namely scientific research, enhancement of propagation or survival, traditional subsistence use, or in extraordinary circumstances, with such exceptions being precise in content and restricted in space and time, and ensuring that any such taking does not operate to the disadvantage of the species,

Text from Existing Resolution	Commentary	Clean New Text Proposed (including new numbering of operative paragraphs)
<p><u><i>Affirming</i> that this Resolution applies to fisheries both within national waters and Exclusive Economic Zones, as well as to flag vessels operating in Areas Beyond National Jurisdiction in accordance with Art. I (1.h), which states that "Range State in relation to a particular migratory species means any State (and where appropriate any other Party referred to under subparagraph (k) of this paragraph) that exercises jurisdiction over any part of the range of that migratory species, or a State, flag vessels of which are engaged outside national jurisdictional limits in taking that migratory species".</u></p>	<p>New paragraph. Clarifying the scope of the Resolution.</p>	<p><i>Affirming</i> that this Resolution applies to fisheries both within national waters and Exclusive Economic Zones, as well as to flag vessels operating in Areas Beyond National Jurisdiction in accordance with Art. I (1.h), which states that "Range State in relation to a particular migratory species means any State (and where appropriate any other Party referred to under subparagraph (k) of this paragraph) that exercises jurisdiction over any part of the range of that migratory species, or a State, flag vessels of which are engaged outside national jurisdictional limits in taking that migratory species",</p>
<p><i>Noting</i> that Section 3 paragraph 8 of the Sharks MOU, to which a number of CMS Parties have acceded, provides that ["sharks should be managed to allow for sustainable harvest where appropriate, through conservation and management measures based on the best available scientific information", and that paragraph 13j of Section 4 of the Sharks MOU encourages "relevant bodies to set targets based on the best available science for fish quotas, fishing effort and other restrictions to help achieve sustainable use",</p>	<p>Repeal. Too specific.</p>	<p>-</p>
<p><u><i>Recognizing</i> the importance of indigenous peoples and local communities in addressing bycatch, particularly in communities that rely significantly on fisheries integrating conservation activities with socio-economic development of some fisheries that accidentally take species listed in Appendices I and II,</u></p>	<p>Language updated for more clarity.</p>	<p><i>Recognizing</i> the importance of indigenous peoples and local communities in addressing bycatch, particularly in communities that rely significantly on fisheries,</p>

Text from Existing Resolution	Commentary	Clean New Text Proposed (including new numbering of operative paragraphs)
Aware of the significant and continuing mortality of many species of fish, seabirds, marine turtles and marine mammals through fisheries bycatch,	Repeal, duplicates text from the first preambular paragraph.	-
<u>Acknowledging</u> that <u>many mitigation techniques have been developed for different taxa, fisheries and regions providing the co-operation of Range States in developing technical solutions and improving practices</u> in relation to bycatch <u>which</u> could greatly enhance the conservation of many populations of <u>aquatic species</u>marine organisms,	Language updated.	<i>Acknowledging</i> that many mitigation techniques have been developed for different taxa, fisheries and regions providing technical solutions and improving practices in relation to bycatch which could greatly enhance the conservation of many populations of aquatic species,
<u>Recognizing</u> the efforts already made by some Parties to reduce bycatch by fisheries within their territorial waters and exclusive economic zones and by vessels fishing on the high seas under their flags,	Repeal, duplicates paragraphs above.	-
<u>Further Noting</u> that <u>there are</u> different stakeholders apply different definitions of bycatch and that this may cause confusion and inconsistency in reporting bycatch and in the development and delivery of bycatch mitigation strategies, <u>and</u>	Updated.	<i>Further noting</i> that there are different definitions of bycatch and that this may cause confusion and inconsistency in reporting bycatch and in the development and delivery of bycatch mitigation strategies, and
<u>Conscious</u> of the work already completed or underway under the auspices of CMS daughter agreements and other relevant bodies, especially the Agreement on the Conservation of Albatrosses and Petrels (ACAP), the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area (ACCOBAMS), and the Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS), as well as of the Bycatch Mitigation Initiative agreed on by the International Whaling Commission (IWC) in 2016,	Repeal. List incomplete, partially outdated and not necessary.	-

Text from Existing Resolution	Commentary	Clean New Text Proposed (including new numbering of operative paragraphs)
<i>Recognizing</i> the important role of the FAO and where appropriate Regional Fishery Bodies (RFBs) Fisheries Management Organizations (RFMOs) in reducing bycatch of CMS-listed species and other non-target species; and,	Updated.	<i>Recognizing</i> the important role of the FAO and where appropriate Regional Fishery Bodies (RFBs) in reducing bycatch of CMS-listed species and other non-target species.
Welcoming the assessment of the impact of gillnet fisheries on CMS-listed species and the review presented in UNEP/CMS/ScC18/Inf.10.15.1;	Repeal. Outdated.	-
<i>The Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals</i>		
0. <u>Agrees that, for the purposes of the Convention, “bycatch” shall be defined as the capture of non-target aquatic species in fishing gear;</u>	New paragraph. Definition to provide clarity under CMS.	1. <i>Agrees</i> that, for the purposes of the Convention, “bycatch” shall be defined as the capture of non-target aquatic species in fishing gear;
1. Reaffirms the obligation on all Parties to protect migratory species against bycatch, including seabirds, fishes, marine turtles and aquatic mammals;	Retain. Punctuation changed.	2. <i>Reaffirms</i> the obligation on all Parties to protect migratory species against bycatch;
1. bis <u>Further agrees that for Appendix I-listed species, Parties shall actively mitigate bycatch, and ensure that any specimens of such species that are caught are recorded, reported, handled safely and released immediately if alive, and that no specimens are retained on board, transshipped or landed, except for the purpose of research relevant to the conservation of the species;</u>	New paragraph. Wording follows RFMO language in part	3. <i>Further agrees</i> that for Appendix I-listed species, Parties shall actively mitigate bycatch, and ensure that any specimens of such species that are caught are recorded, reported, handled safely and released immediately if alive, and that no specimens are retained on board, transshipped or landed, except for the purpose of research relevant to the conservation of the species;

Text from Existing Resolution	Commentary	Clean New Text Proposed (including new numbering of operative paragraphs)
1. <i>ter Further Agrees</i> that for Appendix II-listed species, bycatch should not <u>exceed sustainable levels, taking into account different life history characteristics of some taxa that can only sustain low fishing pressure;</u>	New paragraph.	4. <i>Further Agrees</i> that for Appendix II-listed species, bycatch should not exceed sustainable levels, taking into account different life history characteristics of some taxa that can only sustain low fishing pressure;
1. <i>quater Urges</i> Parties to address bycatch in their national legislation to <u>implement the Convention and the provisions of this Resolution;</u>	New paragraph.	5. <i>Urges</i> Parties to address bycatch in their national legislation to implement the Convention and the provisions of this Resolution;
1. <i>quinquies. Encourages</i> Parties to apply a mitigation hierarchy framework to <u>identify and implement effective bycatch mitigation measures;</u>	New paragraph.	6. <i>Encourages</i> Parties to apply a mitigation hierarchy framework to identify and implement effective bycatch mitigation measures;
2. <i>Further notes and encourages</i> Parties to implement the best practice approaches and procedures provided in Annex 1 to this Resolution outlined in the 1999 FAO International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries (IPOA Seabirds) and its related Best Practices Technical Guidelines, the 1999 FAO International Plan of Action for the Conservation and Management of Sharks (IPOA Sharks), the 2009 FAO Guidelines to Reduce Sea Turtle Mortality in Fishing Operations and the 2011 FAO International Guidelines on Bycatch Management and Reduction of Discards, and to develop and implement national plans of action as required by the <u>in accordance with relevant International Plans of Action (IPOAs) of the Food and Agriculture Organization of the United Nations (FAO);</u>	Language updated and streamlined, reference to Annex 1 added.	7. <i>Further encourages</i> Parties to implement the best practice approaches and procedures provided in Annex 1 to this Resolution and to develop and implement national plans of action in accordance with relevant International Plans of Action (IPOAs) of the Food and Agriculture Organization of the United Nations (FAO);

Text from Existing Resolution	Commentary	Clean New Text Proposed (including new numbering of operative paragraphs)
<p>3. Urges Parties to assess the risk of bycatch arising from their fisheries, as it relates to migratory species, including by using observer programmes and/or other methods, where appropriate, to implement best practice mitigation measures and to review regularly the effectiveness of their implementation of mitigation measures with a view to refining them if required;</p>	<p>Repeal. Include information in new paragraph 3. bis.</p>	<p>-</p>

<p>3. bis. <u>Further urges Parties, and encourages non-Parties, the FAO, RFBs, other relevant organizations and the private sector, to strengthen monitoring, data collection and research on bycatch of CMS-listed species, and to apply results to improve bycatch mitigation, including by:</u></p> <ul style="list-style-type: none"> a) <u>assessing risk and implementing monitoring schemes, including, where appropriate, on-board observers or electronic monitoring, to determine and address the impact of fisheries bycatch;</u> b) <u>applying best practice mitigation measures informed by monitoring results, and regularly reviewing and refining their effectiveness;</u> c) <u>facilitating collection and sharing of species-specific bycatch data, including information on injuries caused by fisheries activities, to support the development of technical tools and management approaches to reduce post-release mortality;</u> d) <u>evaluating welfare and conservation implications of bycatch, including sub-lethal effects of injury and stress, and their conservation implications; and</u> e) <u>funding, supporting and undertaking independent research to identify, assess and improve bycatch mitigation measures, including the development and promotion of alternative fishing gear and methods, particularly in respect to non-selective gear such as gillnets.</u> 	<p>New paragraph. Merging operative paragraphs 3, 5, 8c, 9, 10, 12 and 24 .</p>	<p>8. <i>Further urges Parties, and encourages non-Parties, the FAO, RFBs, other relevant organizations and the private sector, to strengthen monitoring, data collection and research on bycatch of CMS-listed species, and to apply results to improve bycatch mitigation, including by:</i></p> <ul style="list-style-type: none"> a) assessing risk and implementing monitoring schemes, including, where appropriate, on-board observers or electronic monitoring, to determine and address the impact of fisheries bycatch; b) applying best practice mitigation measures informed by monitoring results, and regularly reviewing and refining their effectiveness; c) facilitating collection and sharing of species-specific bycatch data, including information on injuries caused by fisheries activities, to support the development of technical tools and management approaches to reduce post-release mortality;
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Text from Existing Resolution	Commentary	Clean New Text Proposed (including new numbering of operative paragraphs)
		<p>d) evaluating welfare and conservation implications of bycatch, including sub-lethal effects of injury and stress, and their conservation implications; and</p> <p>e) funding, supporting and undertaking independent research to identify, assess and improve bycatch mitigation measures, including the development and promotion of alternative fishing gear and methods, particularly in respect to non-selective gear such as gillnets.</p>
<p>4. Requests all Parties, as a matter of gravity, to continue and strengthen measures within fisheries under their control, both within their territorial waters and exclusive economic zones, and by vessels fishing on the high seas under their flag, to minimize as far as possible the incidental mortality of migratory species listed in Appendices I and II;</p>	<p>Repeal. Obsolete. Duplication of information provided in preambular text on the geographical scope of this Resolution and in operative paragraphs 1 and 3. bis among others.</p>	<p>-</p>
<p>5. Calls upon Parties to cooperate by providing reports of the type of injuries found in the bodies of marine species with a view to find tools that will lead to the solutions needed to address the problems that cause the different types of injuries, which are the same problems that cause the stranding of diverse migratory species, such as birds, marine mammals, turtles, sharks and rays;</p>	<p>Repeal. Include information in new paragraph 3 bis.</p> <p>Removal of reference to strandings.</p>	<p>-</p>

Text from Existing Resolution	Commentary	Clean New Text Proposed (including new numbering of operative paragraphs)
<p>6. Further Encourages all Parties that are Range States of the CMS-listed species listed in Appendices I and II, and that have fisheries in which there is interaction with these species, to cooperate with each other and with non-Party Range Statesother countries in order through information exchange and further development of practical and effective bycatch mitigation measures and/or devices; in these fisheries through information exchange and further development of practical and effective mitigation measures and/or devices for seabirds, sea turtles and cetaceans;</p>	<p>Language streamlined.</p>	<p>12. <i>Further encourages</i> Parties that are Range States of CMS-listed species to cooperate with each other and with non-Party Range States through information exchange and further development of practical and effective bycatch mitigation measures and/or devices</p>
<p>Participation in Regional Fisheries Management Organizations</p>	<p>Repeal, all subheadings removed.</p>	<p>-</p>
<p>6. bis. <u>Further urges</u> Parties to actively cooperate with, and work through, competent national, regional and international bodies responsible for fisheries management, in accordance with the guidance set out in Annex 1 to this Resolution, with a view to enhancing the conservation of migratory species affected by bycatch and promoting coordinated implementation of effective mitigation measures;</p>	<p>New paragraph.</p>	<p>11. <i>Further urges</i> Parties to actively cooperate with, and work through, competent national, regional and international bodies responsible for fisheries management, in accordance with the guidance set out in Annex 1 to this Resolution, with a view to enhancing the conservation of migratory species affected by bycatch and promoting coordinated implementation of effective mitigation measures;</p>
<p>7. Requests those Parties that are also Parties to regional fisheries management organizations (RFMOs) to highlight there the serious problems of incidental mortality of migratory species listed in Appendices I and II, with a view to the adoption of mitigating measures;</p>	<p>Repeal, addressed in paragraph 8a).</p>	<p>-</p>

<p>8. Further Calls on Parties working through RFBs RFMOs and regional fisheries management agreements, as appropriate, to:</p> <p>a) raise the serious and ongoing problem of bycatch of CMS-listed species within these fora and agree on appropriate measures to address the issue; migratory species, especially as it refers to seabirds, fishes, marine turtles and marine mammals, with a view to improving mitigation measures for the reduction of bycatch;</p> <p>b) compile information and take action regarding fishing activities in waters under their jurisdiction, or by flagged fishing vessels under their jurisdiction or control, as the very first step to address the problem, covering:</p> <p>i) resources targeted;</p> <p>ii) resources being caught incidentally;</p> <p>iii) effects on the resource being caught incidentally (estimate total bycatch in the fishery(ies) and population impact);</p> <p>iv) implementation of mitigation measures known to be effective; and</p> <p>v) information on fishing capacity and effort by gear type;</p> <p>c) implement appropriate schemes (including, where appropriate, on-board observers or electronic monitoring systems) for fisheries within waters under their jurisdiction, or carried out by flagged fishing vessels under their jurisdiction or control, in order to determine the impact of fisheries bycatch on migratory species; . Where relevant, this should be carried out in the context of the Food and Agriculture Organization of the United Nations' (FAO's) International Plans of Action on Seabirds and Sharks;</p> <p>d) encourage research proposals in geographical areas in which there is a particular lack of information and that, at the same time, are not covered by currently existing CMS Agreements. In particular, information is needed on:</p> <p>i) artisanal fisheries, generally;</p> <p>ii) gillnet fisheries, generally;</p> <p>iii) pelagic and bottom trawling, and purse seine fisheries;</p> <p>iv) in the case of cetaceans, special attention is to be paid to South,</p>	<p>Reduced text, further technical details formerly in paragraph 8 are provided in a separate Guidance contained in Annex 1.</p> <p>Subparagraphs c) information retained in new paragraph 3 bis.</p> <p>Subparagraph e) retained as new paragraph 8. bis.</p>	<p>13. <i>Further calls</i> on Parties working through RFBs, as appropriate, to raise the serious and ongoing problem of bycatch of CMS-listed species within these fora and agree on appropriate measures to address the issue;</p>
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Text from Existing Resolution	Commentary	Clean New Text Proposed (including new numbering of operative paragraphs)
<p>South-east and East Asia and West Africa;</p> <p>v) for marine turtles, all fisheries, particularly including long-line fisheries in the Pacific Ocean and impacts on Olive Ridley Turtles in South Asia;</p> <p>vi) for birds, South America and northern hemisphere gillnet and longline fisheries;</p> <p>vii) for sharks, all fisheries;</p> <p>e) consider and implement ways and means to reduce the amount of discarded and lost nets and other detrimental fishing gear both within their maritime zones and on the high seas, as well as ways and means of minimizing such losses from vessels flying their flag;</p>		
<p>8. bis. Further urges Parties to consider and implement ways and means to reduce the amount of <u>abandoned, lost or otherwise</u> discarded and lost nets and other detrimental fishing gear both within their maritime zones and on the high seas, as well as ways and means of minimizing such losses from vessels flying their flag;</p>	<p>Former subparagraph 8. e), adjusted language.</p>	<p>9. <i>Further urges</i> Parties to implement ways and means to reduce the amount of abandoned, lost or otherwise discarded fishing gear both within their maritime zones and on the high seas, as well as ways and means of minimizing such losses from vessels flying their flag;</p>
<p>Bycatch Mitigation Measures and Data Collection</p>	<p>Repeal. All subheadings removed.</p>	
<p>9. <i>Encourages</i> Parties, to conduct research to identify and improve mitigation measures, including use of alternative fishing gear and methods, particularly in respect to non-selective gears such as gillnets, to avoid or reduce bycatch where feasible, and subsequently promote their use and implementation;</p>	<p>Repeal. Information retained in new paragraph 3 bis.</p>	<p>-</p>

Text from Existing Resolution	Commentary	Clean New Text Proposed (including new numbering of operative paragraphs)
<p>10. <i>Recommends</i> carrying out further evaluation of the welfare implications of bycatch of marine mammals, including investigation into the sub-lethal effects of bycatch-related injury and stress, and their conservation implications;</p>	<p>Repeal. Information retained in new paragraph 3 bis.</p>	<p>-</p>
<p>11. <i>Requests</i> Parties to improve reporting of bycatch information and data in their CMS National Reports, or via their reports to CMS daughter agreements, particularly on bycatch mitigation methods that have proved to be effective;</p>	<p>Repeal. Duplicates reporting to other relevant organizations.</p>	<p>-</p>
<p>12. <i>Further encourages</i> Parties and invites other governments, fisheries and fisheries related organizations and the private sector to facilitate collection of species specific bycatch data and to share such data wherever possible;</p>	<p>Repeal. Information retained in new paragraph 3 bis.</p>	<p>-</p>
<p><u>12. bis. <i>Calls on</i> Parties to consider potential effects on other taxa when developing or adopting mitigation measures, in order to avoid unintended negative impacts;</u></p>	<p>New paragraph.</p>	<p>10. <i>Calls on</i> Parties to consider potential effects on other taxa when developing or adopting mitigation measures, in order to avoid unintended negative impacts;</p>
<p>13. <i>Requests</i> Parties to provide available information, including the results of bycatch risk assessments or mitigation research, to the Scientific Council to allow the Scientific Council, upon request from one or several Parties, to identify and provide advice to them on best practice mitigation techniques for each particular circumstance;</p>	<p>Repeal. Decision text.</p>	<p></p>

Text from Existing Resolution	Commentary	Clean New Text Proposed (including new numbering of operative paragraphs)
<p>14. Requests the CMS Secretariat, subject to the availability of resources, to:</p> <ul style="list-style-type: none"> a) undertake studies to assist any interested developing countries to determine relative levels of bycatch in their commercial and artisanal fisheries when they so require, where feasible in collaboration with relevant intergovernmental organizations; b) organize a series of specialist bycatch mitigation workshops in developing country Parties and non Parties with substantial commercial fisheries coordinated with any interested Parties, where feasible in collaboration with relevant intergovernmental organizations; c) report progress on these actions to the CMS Standing Committee and Scientific Council; d) make the information gathered under paragraph 12 a) readily accessible to all relevant range states for migratory species threatened by bycatch, inter alia to assist in the application of bycatch mitigation techniques relevant to migratory species and report progress to meetings of the Standing Committee and Scientific Council; 	<p>Repeal. Duplicates project-based work; better handled via targeted Decisions.</p>	<p>-</p>
<p>Collaboration and Cooperation</p>	<p>Repeal, all subheadings removed.</p>	<p>-</p>
<p>15. Requests the Secretariats of CMS and relevant daughter agreements to improve cooperation and communication on bycatch related issues, and to cooperate closely with other relevant programmes, such as the IWC Bycatch Mitigation Initiative;</p>	<p>Repeal. Information included in paragraph 20.</p>	<p>-</p>
<p>16. Invites the Scientific Council and the Working Group on Bycatch to recommend to the Conference of the Parties, as appropriate, concerted actions to be taken by Parties in respect of species listed in Appendices I and II that are affected by bycatch;</p>	<p>Repeal. Overlaps with current CMS procedures on Concerted Actions.</p>	<p>-</p>

Text from Existing Resolution	Commentary	Clean New Text Proposed (including new numbering of operative paragraphs)
17. Instructs the Scientific Council and the Bycatch Working Group to identify for each particular bycatch situation (gear type, species, fishing area and season) the most effective mitigation techniques, which should build upon and complement existing initiatives within the fisheries sector;	Repeal. Already in Scientific Council's Terms of Reference.	-
18. Requests the Scientific Council to consider any scientific and technical information submitted by Range States or other relevant bodies, relating to impacts on migratory species from bycatch, in particular CMS daughter agreements;	Repeal. Routine ScC function; doesn't need repeating.	-
19. Encourages stakeholders to consult experts on all taxa concerned, including the particular expertise available within relevant CMS agreements, to consider the potential effects on aquatic mammals, seabirds, marine turtles and sharks when choosing mitigation measures;	Repeal. Covered in paragraph 12. bis.	-
20. Requests the Secretariat, the Scientific Council and Parties to continue and increase efforts to collaborate with other relevant international fora and where appropriate the RFBs, with a view to avoiding duplication, <u>and</u> increasing synergies; and raising the profile of CMS and CMS agreements related to aquatic species in these fora;	Retain partially.	14. Requests the Secretariat, the Scientific Council and Parties to continue and increase efforts to collaborate with other relevant international fora and where appropriate the RFBs, with a view to avoiding duplication and increasing synergies;
Technological and Financial Assistance	Repeal. All subheadings removed.	-
21. Calls upon Parties to support the participation of representatives of the Secretariat and Scientific Council in relevant international fora through voluntary contributions;	Repeal. Addressed through POW/budget or Decisions.	-
22. Calls upon all donor countries to consider helping developing countries acquire and use relevant technology, and with appropriate education and training of fishermen;	Repeal. Merged with paragraph 23 in new paragraph 23. bis.	-

Text from Existing Resolution	Commentary	Clean New Text Proposed (including new numbering of operative paragraphs)
23. Further encourages Parties to provide financial and technical support to developing countries for the mitigation of bycatch of species listed in the Appendices of CMS, focusing on work with indigenous and local communities that depend on fisheries for their livelihoods;	Repeal. Merged with paragraph 22 in new paragraph 23. bis.	-
<u>23. bis. Further encourages donor countries and Parties to support developing countries to implement this Resolution; and</u>	New paragraph. Merged from former paragraphs 22 and 23.	15. <i>Further encourages</i> donor countries and Parties to support developing countries to implement this Resolution; and
24. Calls upon Parties and invites other governments, partner organizations and the private sector to provide voluntary contributions for independent research on the effectiveness and further improvement of bycatch mitigation measures; and	Repeal. Information retained in new paragraph 3 bis.	-
Final Provisions	Repeal. All subheadings removed.	
25. <i>Repeals</i> a) Resolution 6.2, By-Catch; b) Recommendation 7.2, Implementation of Resolution 6.2 on By-Catch; c) Resolution 8.14, By-Catch; d) Resolution 9.18, By-Catch; and e) Resolution 10.14, Bycatch of CMS-Listed Species in Gillnet Fisheries.	Retain. Formatting corrected.	16. <i>Repeals</i> a) Resolution 6.2 <i>By-Catch</i> ; b) Recommendation 7.2, Implementation of Resolution 6.2 on By-Catch; c) Resolution 8.14 <i>By-Catch</i> ; d) Resolution 9.18 <i>By-Catch</i> ; and e) Resolution 10.14 <i>Bycatch of CMS-Listed Species in Gillnet Fisheries</i> .

CLEAN TEXT OF THE AMENDED RESOLUTION 12.22

BYCATCH AND OTHER FISHERIES-INDUCED MORTALITY

Concerned that despite considerable progress on implementing bycatch mitigation measures to reduce the adverse impacts of fishing on CMS-listed species, bycatch remains one of the major causes of mortality of aquatic migratory species.

Noting that significant additional efforts are required to prevent bycatch of Appendix I-listed species and to reduce bycatch to levels that do not threaten the conservation status of Appendix II-listed species,

Recognizing that Article II of the Convention requires all Parties to take action to avoid any migratory species becoming endangered and, in particular, to endeavour to provide immediate protection for migratory species listed in Appendix I to the Convention, and to endeavour to conclude Agreements covering the conservation and management of migratory species listed in Appendix II,

Recalling Art. III (4.c) of the Convention, which calls upon Parties that are Range States of Appendix I-listed migratory species to, where feasible and appropriate, prevent, reduce or control factors endangering or likely to further endanger such species,

Further recalling Art. III (5) of the Convention, which obliges Range States of Appendix I-listed migratory species to prohibit the taking of animals belonging to such species, except for specific and limited purposes, namely scientific research, enhancement of propagation or survival, traditional subsistence use, or in extraordinary circumstances, with such exceptions being precise in content and restricted in space and time, and ensuring that any such taking does not operate to the disadvantage of the species,

Affirming that this Resolution applies to fisheries both within national waters and Exclusive Economic Zones, as well as to flag vessels operating in Areas Beyond National Jurisdiction in accordance with Art. I (1.h), which states that "Range State in relation to a particular migratory species means any State (and where appropriate any other Party referred to under subparagraph (k) of this paragraph) that exercises jurisdiction over any part of the range of that migratory species, or a State, flag vessels of which are engaged outside national jurisdictional limits in taking that migratory species",

Recognizing the importance of indigenous peoples and local communities in addressing bycatch, particularly in communities that rely significantly on fisheries,

Acknowledging that many mitigation techniques have been developed for different taxa, fisheries and regions providing technical solutions and improving practices in relation to bycatch which could greatly enhance the conservation of many populations of aquatic species,

Further noting that there are different definitions of bycatch and that this may cause confusion and inconsistency in reporting bycatch and in the development and delivery of bycatch mitigation strategies,

Recognizing the important role of the FAO and where appropriate Regional Fishery Bodies (RFBs) in reducing bycatch of CMS-listed species and other non-target species,

*The Conference of the Parties to the
Convention on the Conservation of Migratory Species of Wild Animals*

1. *Agrees* that, for the purposes of the Convention, “bycatch” shall be defined as the capture of non-target aquatic species in fishing gear;
2. *Reaffirms* the obligation on all Parties to protect migratory species against bycatch;
3. *Further agrees* that for Appendix I-listed species, Parties shall actively mitigate bycatch, and ensure that any specimens of such species that are caught are recorded, reported, handled safely and released immediately if alive, and that no specimens are retained on board, transshipped or landed, except for the purpose of research relevant to the conservation of the species;
4. *Further agrees* that for Appendix II-listed species, bycatch should not exceed sustainable levels, taking into account different life history characteristics of some taxa that can only sustain low fishing pressure;
5. *Urges* Parties to address bycatch in their national legislation to implement the Convention and the provisions of this Resolution;
6. *Encourages* Parties to apply a mitigation hierarchy framework to identify and implement effective bycatch mitigation measures;
7. *Further encourages* Parties to implement the best practice approaches and procedures provided in Annex 1 to this Resolution and to develop and implement national plans of action in accordance with relevant International Plans of Action (IPOAs) of the Food and Agriculture Organization of the United Nations (FAO);
8. *Further urges* Parties, and *encourages* non-Parties, the FAO, RFBs, other relevant organizations, and the private sector, to strengthen monitoring, data collection and research on bycatch of CMS-listed species, and to apply results to improve bycatch mitigation, including by:
 - a) assessing risk and implementing monitoring schemes, including, where appropriate, on-board observers or electronic monitoring, to determine and address the impact of fisheries bycatch,
 - b) applying best practice mitigation measures informed by monitoring results, and regularly reviewing and refining their effectiveness,
 - c) facilitating collection and sharing of species-specific bycatch data, including information on injuries caused by fisheries activities, to support the development of technical tools and management approaches to reduce post-release mortality,
 - d) evaluating welfare and conservation implications of bycatch, including sub-lethal effects of injury and stress, and their conservation implications, and
 - e) funding, supporting and undertaking independent research to identify, assess and improve bycatch mitigation measures, including the development and promotion of alternative fishing gear and methods, particularly in respect to non-selective gear such as gillnets;
9. *Further urges* Parties to implement ways and means to reduce the amount of abandoned, lost or otherwise discarded fishing gear both within their maritime zones and on the high seas, as well as ways and means of minimizing such losses from vessels flying their flag;

10. *Calls on* Parties to consider potential effects on other taxa when developing or adopting mitigation measures, in order to avoid unintended negative impacts;
11. *Further urges* Parties to actively cooperate with, and work through, competent national, regional, and international bodies responsible for fisheries management, in accordance with the guidance set out in Annex 1 to this Resolution, with a view to enhancing the conservation of migratory species affected by bycatch and promoting coordinated implementation of effective mitigation measures;
12. *Further encourages* Parties that are Range States of CMS-listed species to cooperate with each other and with non-Party Range States through information exchange and further development of practical and effective bycatch mitigation measures and/or devices;
13. *Further calls on* Parties working through RFBs, as appropriate, to raise the serious and ongoing problem of bycatch on CMS-listed species within these fora and agree appropriate measures to address the issue;
14. *Requests* the Secretariat, the Scientific Council and Parties to continue and increase efforts to collaborate with other relevant international fora and where appropriate the RFBs, with a view to avoiding duplication and increasing synergies;
15. *Further encourages* donor countries and Parties to support developing countries to implement this Resolution; and
16. *Repeals:*
 - a) Resolution 6.2 *By-Catch*,
 - b) Recommendation 7.2, Implementation of Resolution 6.2 on By-Catch,
 - c) Resolution 8.14 *By-Catch*,
 - d) Resolution 9.18 *By-Catch*, and
 - e) Resolution 10.14 *Bycatch of CMS-Listed Species in Gillnet Fisheries*.

ANNEX 1 to the Resolution

GUIDANCE ON MITIGATION AND MANAGEMENT OF BYCATCH IN FISHERIES

General

ICES (2020). ICES Roadmap for bycatch advice on protected, endangered and threatened species (2020). ICES Technical Guidelines. Report. <https://doi.org/10.17895/ices.advice.6022>

FAO (2011). International Guidelines on Bycatch Management and Reduction of Discards. <https://openknowledge.fao.org/server/api/core/bitstreams/d47172a3-731b-49b7-9c59-bbda0b328ee7/content>

Clarke, Sato, Small, Sullivan, Inoue & Ochi (2014). Bycatch in longline fisheries for tuna and tuna-like species: a global review of status and mitigation measures. FAO Fisheries and Aquaculture Technical Paper No. 588. Rome, FAO. <https://www.fao.org/responsible-fishing/resources/detail/en/c/1315947/>

Eayrs & Fuentevilla (2021). *Advances and best practices in bycatch reduction in tropical shrimp-trawl fisheries*. FAO Fisheries and Aquaculture Technical Paper No. 678. Rome, FAO. <https://doi.org/10.4060/cb6635en>

ISSF (2019). Non-Entangling & Biodegradable FADs Guide. Best Practices for fishers, RFMOs, governments & vessel owners. <https://www.issf-foundation.org/about-issf/what-we-publish/issf-documents/non-entangling-and-biodegradable-fads-guide-english/>

Marine Mammals

Hamilton and Baker 2019. *Technical mitigation to reduce marine mammal bycatch and entanglement in commercial fishing gear: lessons learnt and future directions*. Rev Fish Biol Fisheries 29, 223–247. <https://doi.org/10.1007/s11160-019-09550-6> and [UNEP/CMS/COP13/Inf.11](https://www.unep.org/cms/cop13/inf.11)

FAO (2021). Fishing operations. Guidelines to prevent and reduce bycatch of marine mammals in capture fisheries. FAO Technical Guidelines for Responsible Fisheries No.1, Suppl. 4. Rome. <https://doi.org/10.4060/cb2887en>

Cetaceans

CMS (2018). Review of Methods Used to Reduce Risks of Cetacean Bycatch and Entanglements (CMS Technical Series No.38). <https://www.cms.int/en/publication/review-methods-used-reduce-risks-cetacean-bycatch-and-entanglements-cms-technical-series>

ASCOBANS (2021). Monitoring Cetacean Bycatch: An Analysis of Different Methods Aboard Commercial Fishing Vessels - ASCOBANS Technical Series No.1. <https://www.ascobans.org/en/publication/monitoring-cetacean-bycatch-analysis-different-methods-aboard-commercial-fishing-vessels>

ASCOBANS (2021). Cost-benefit Analysis for Mitigation Measures in Fisheries with High Bycatch - ASCOBANS Technical Series No.2. <https://www.ascobans.org/en/publication/cost-benefit-analysis-mitigation-measures-fisheries-high-bycatch>

Shark and Rays

Drynan D.A.D., Baker G.B, Garnett S.T., Kyne, P.M. (2025). Technical mitigation techniques to reduce the bycatch of sharks: there is no silver bullet.²¹

Turtles

CMS (2025). A review of technical and operational measures to mitigate bycatch of marine turtles in commercial fisheries. [UNEP/CMS/COP15/Inf.25.1.1](#)

ISSF (2024). Jelly-FAD Construction Guide. Building netting-Free, Biodegradable FADs for Sustainable Tuna Fishing. <https://www.issf-foundation.org/about-issf/what-we-publish/issf-documents/jelly-fad-construction-guide/>

Seabirds

Agreement on the Conservation of Albatrosses and Petrels (ACAP). Bycatch Mitigation Advice. <https://www.acap.aq/resources/bycatch-mitigation>

²¹ This guidance represents an update to **CMS (2023)**. Technical mitigation techniques to reduce bycatch of sharks – There is no silver bullet. [UNEP/CMS/COP14/Doc.27.1.1/Rev.1/Annex 1](#). It was recently submitted. Once the URL is available, it will be added as a link, and this footnote will be deleted.

ANNEX 3**DRAFT DECISIONS****BYCATCH AND OTHER FISHERIES-INDUCED MORTALITY*****Directed to Parties***

15.AA Parties are requested to apply the recommendations by Breimann and Baker (2025) on marine turtle bycatch mitigation provided in Annex 1.

Directed to the Scientific Council

15.BB The Scientific Council is requested to, subject to the availability of resources:

- a) regarding bycatch of CMS-listed marine mammals and marine turtles:
 - i. identify regions where reviews of relative levels of bycatch in commercial and artisanal fisheries would be a priority and/or beneficial,
 - ii. collaborate with all relevant organizations, including fisheries management bodies, to develop regional reviews with a view to reducing the levels of bycatch in commercial and artisanal fisheries,
 - iii. identify and prioritize fisheries and areas in which adverse impacts of bycatch are most severe,
 - iv. cooperate with the relevant organizations, including fisheries bodies, to develop the most appropriate bycatch mitigation measures for fisheries of highest priority, and
 - v. develop appropriate bycatch mitigation measures with associated timebound action plans;
- b) in collaboration with the Advisory Committee of the Sharks MOU, continue the ongoing review and appraisal of current data and knowledge regarding the levels of fisheries-induced mortality of CMS- and Sharks MOU-listed shark and ray species, and prepare recommendations on reducing fisheries-induced mortality;
- c) develop a report to quantify the contribution of bycatch and other fisheries-related mortalities of CMS-listed cetaceans to trophic downgrading and the health and function of marine ecosystems, and make recommendations to Parties;
- d) review current knowledge on existing measures to reduce and mitigate bycatch of freshwater fish for both commercial and artisanal fisheries, and make recommendations to Parties on the most effective and appropriate measures to mitigate bycatch, while ensuring that recommended measures do not act to the disadvantage of other CMS-listed species;
- e) in collaboration with other relevant stakeholders, ensure cross-referencing with seabird bycatch work, to ensure consideration of cross-taxa implications, and identify opportunities for further collaboration on addressing fisheries-induced mortality across taxa;

- f) review and appraise, in collaboration with CMS's daughter Agreements, current data and knowledge regarding the impact (and potential impact) of maw fisheries on marine mammal, marine turtle, and shark and ray species ; and
- g) in conjunction with the International Whaling Commission Bycatch Mitigation Initiative, develop recommendations on the most effective and appropriate measures to reduce and mitigate bycatch in maw fisheries.

Directed to the Secretariat

15.CC The Secretariat shall, subject to the availability of resources:

- a) prepare a synthesis report to be published as part of the CMS Technical Series, in collaboration with the COP-appointed Councillor for Bycatch, to collate the experience gained from bycatch mitigation strategies for marine mammals as developed for COP13, sharks and rays as developed for COP14, seabirds as developed by AEWA and ACAP, and marine turtles as developed for COP15, as well as any new relevant scientific information that arises;
- b) work with the IWC, CITES and other relevant intergovernmental organizations, Parties and stakeholders to address the bycatch impacts of the trade in fish maw;
- c) contribute to a possible international expert workshop to review current knowledge on the impacts of the maw trade and the most effective and appropriate mitigation measures to reduce bycatch; and
- d) support the Scientific Council with the implementation of Decision 15.BB.