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**International Whaling Commission (IWC) focus on cetacean bycatch in the
western central Pacific Ocean**

WCPFC-SC19-2023/EB-WP-10

IWC Secretariat

SC19-EB-WP-10

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Executive summary: The Scientific and Conservation Committees of the International Whaling Commission (IWC) have focused on a number of species and themes that are relevant to the assessment of cetacean bycatch in tuna fisheries of the western central Pacific Ocean (WCPO). The IWC Bycatch Mitigation Initiative ([BMI](#)) and Human Induced Mortality (HIM) sub-committee in particular concentrate on the need to improve the monitoring and mitigation of cetacean bycatch worldwide, including the WCPO, adopting numerous recommendations (see IWC Database of Recommendations – [DoR](#)). The BMI, as well as the IWC's Global Whale Entanglement Response Network and the IWC's Stranding Initiative, work worldwide sharing expertise and information, including assisting countries by providing capacity building programmes to assess cetacean bycatch, prevent entanglement of large cetaceans and develop entanglement/strandings response capability. This work has benefitted from the IWC's engagement with local and international organisations, such as the Food and Agriculture Organisation (FAO). In 2023, the IWC agreed on a 4-year capsule project within the GEF/FAO Common Oceans ABNJ Tuna project Phase 2. This project aims to collaboratively advance efforts to assess and address cetacean bycatch in tuna fisheries across two ocean basins, notably the western central Pacific and Indian Oceans. The project's activities fall within the following themes: assessing cetacean bycatch and data gaps to inform RFMOs; building regional capacity and awareness on cetacean bycatch and available solutions; and collaboratively developing recommendations to address cetacean bycatch for consideration by multi-lateral environmental and fisheries agreements. The IWC will focus on developing recommendations for cetacean conservation through its own Committees and Commission processes and build a coordinated and collaborative approach with IWC member governments as well as in relevant RFMOs, such as the Indian Ocean Tuna Commission and Western and Central Pacific Fisheries Commission.

Introduction

The International Whaling Commission (IWC) is an inter-governmental organisation established under the 1946 International Convention for the Regulation of Whaling. Today, the Commission has a membership of 88 Contracting Governments which meet every two years. At the time of its establishment, the focus was on management of whaling and conservation of whales, however, many new conservation concerns have arisen. Although its mandate has not changed over the years, the IWC work programme now also addresses other threats to cetaceans including bycatch and entanglement, ship strikes, ocean noise, pollution and marine debris, and sustainable whale watching. This paper summarizes the IWC's previous work and planned activities that are relevant to the assessment of cetacean bycatch in tuna fisheries in the western central Pacific Ocean.

IWC's initiatives

Over the past three decades, there has been widespread acknowledgement of the significance of bycatch as a major threat to cetaceans. In 2011, the IWC Global Whale Entanglement Response Network (GWERN) was launched aiming to build safe and effective entanglement response capability around the world and

with the long-term goal of preventing entanglements. The programme is a partnership with the Center for Coastal Studies (CCS), in the USA. A Technical Advisor leads the programme supported by an Expert Panel drawn from countries already operating national entanglement response teams. They developed global Best Practice Guidelines and devised a two-day entanglement response training package.

The need for IWC engagement and action in relation to cetacean bycatch has emerged more recently in several IWC Scientific Committee and Commission meetings. This led to an agreement at IWC66 (2016) by the Commission to establish the Bycatch Mitigation Initiative ([BMI](#)). The BMI is made up of three interrelated components; a Bycatch Coordinator in the IWC Secretariat; a Standing Working Group (SWG) on Bycatch under the Conservation Committee and an Expert Panel to advise the coordinator and the SWG. In collaboration with other organisations, national governments and fishing communities, the BMI aims to develop, assess and promote effective bycatch prevention and mitigation measures world-wide. The BMI concentrates on four main areas: improved assessment of bycatch to determine priorities and to measure success; innovation and testing of mitigation and management methods and approaches; capacity building and transfer of expertise, technology and management measures between countries and fishing communities; engagement and collaboration with other relevant international organisations focused on fisheries management and bycatch.

IWC's capacity building programmes

The BMI, as well as the IWC's Global Whale Entanglement Response Network and the IWC's Stranding Initiative, work worldwide sharing expertise and information, including assisting countries by providing capacity building programmes to assess cetacean bycatch, prevent entanglement of large cetaceans and develop entanglement/stranding response capability.

The IWC's Bycatch Mitigation Initiative has supported Bycatch Risk Assessment (ByRA) training workshops in several countries in the Pacific region, including in Chile, Perú, Philippines, Thailand, the USA and Vietnam. The ByRA toolkit is based on geographic information systems, and its objective is to assess and visualize spatio-temporal bycatch risk making best use of whatever amount or type of data are available, identifying critical areas of investigation and immediate management actions (Hines et al. 2020). The ByRA toolkit has now been used in 13 countries around the world.

The IWC's Global Whale Entanglement Response Network response training package provides information on data collection, relevant laws or regulations, and cetacean species present in the region. This is followed by on-water practical training covering the use of disentanglement tools and safe vessel handling when close to large whales. All training is conducted with the permission, and ideally participation, of the relevant government authority in that country. Training has been delivered on five continents, reaching over 1300 scientists, conservationists, fishers and government representatives from more than 36 countries. A 'train the trainer' apprenticeship programme has also been developed. As well as equipping regions, countries and coastlines with the skills to build their own entanglement response capability, and creating a global network of professional response teams, every participant is taught the importance of accurate and consistent data gathering. In the Pacific region to date, the IWC entanglement response training has conducted capacity building in Thailand, Ecuador, Panama, El Salvador, Mexico, Canada, Russia and Tonga; including joint entanglement/stranding trainings for Chile and Peru which were delivered in conjunction with the IWC's Stranding Initiative. One of the IWC's trainers on entanglement response is based in Hawaii, and two Spanish-speaking trainers are based in Mexico, where they are poised to provide training for the Pacific Ocean region.

IWC collaboration with other organisations to address bycatch

As bycatch is an issue that needs to be tackled on several different scales, from fishing communities to national governments and intergovernmental fishery bodies, the concepts of collaboration and co-ordination underpin the BMI. The work of the BMI has benefitted from the IWC's engagement with local and international organisations, such as the Food and Agriculture Organization of the United Nations (FAO), Secretariat of the Pacific Regional Environment Programme (SPREP), Permanent Commission for the South Pacific (CPPS) and UNEP.

The BMI's Expert Panel contributed to the preparation of the 'Guidelines to prevent and reduce bycatch of marine mammals in capture fisheries (2021)' ([FAO MM Guidelines](#)). These guidelines are currently available in English and French, and the Spanish version is being prepared by FAO. To promote and facilitate implementation of the FAO MM Guidelines, the IWC delivered content (text and illustrations) to produce FAO Marine Mammal Bycatch Mitigation Factsheets in electronic format, contributing to the collection of FAO Fisheries and Aquaculture online factsheets and knowledge products. The content for the factsheets were prepared by the IWC Secretariat in collaboration with a contracted illustrator, and draft versions of the factsheets were reviewed by the BMI's Expert Panel members and by FAO technical experts. FAO produced the online version of twelve "Marine mammal bycatch mitigation" factsheets and an introductory page, which can be accessed [here](#) on the FAO website. The factsheets are aimed primarily at fishery managers, fishers and researchers, and can be downloaded, shared and printed by any interested party. Several of the mitigation measures described in the FAO MM Guidelines and illustrated in the factsheets may be relevant to reducing cetacean bycatch in tuna fisheries in the WCPO.

The IWC Executive Secretary and the Bycatch Coordinator have attended FAO Committee on Fisheries (COFI) meetings since 2018. IWC interventions acknowledged the need to address cetacean bycatch, to welcome the recently published FAO MM Guidelines, and to promote collaborative opportunities between the FAO, fisheries management organisations and the IWC to advance science and finding workable solutions. The IWC also participates in the Regional Secretariats' Network (RSN), which is a group of Executive Secretaries/Directors of Regional Fishery Management Organizations (RFMOs) and other Regional Bodies. This is an excellent opportunity for the IWC to exchange information on Secretariat-level issues and for collaboration on bycatch with RFMOs.

FAO Common Oceans ABNJ

In 2023, the IWC agreed on a 4-year capsule project with the FAO for the provision of "Assessing and addressing cetacean bycatch in tuna fisheries". The IWC's capsule is part of the Phase 2 of the Project "Sustainable Management of Tuna Fisheries and Biodiversity Conservation in the Areas Beyond National Jurisdiction (ABNJ)" (Tuna II-GEF ID 10622) (herein after the Tuna II project) funded by the Global Environment Facility (GEF) (GCP/GLO/1000/GFF). The overall objective of the Tuna II project is to achieve responsible, efficient, and sustainable tuna production and biodiversity conservation in the ABNJ in face of a changing environment. The Tuna II project is a continuation of the earlier Phase 1 Tuna Project (Tuna I – GEF ID 4581) and a critical part of the "GEF Common Oceans - Sustainable utilization and conservation of biodiversity in areas beyond national jurisdiction Program" (GEF ID 10548).

Through this capsule project, the IWC will be working to collaboratively advance efforts to assess and address cetacean bycatch in tuna fisheries across two ocean basins, notably the western central Pacific Ocean and the Indian Ocean. The IWC's capsule will contribute to the reduction of environmental impacts

of tuna fisheries (Component 3 of Tuna II Project) by addressing cetacean bycatch. The capsule project's activities fall across three themes:

- 1) Assessing cetacean bycatch and data gaps in tuna fisheries across each of both Ocean Basins;
- 2) Building regional capacity and awareness on cetacean bycatch and available solutions; and
- 3) Collaboratively developing recommendations to address cetacean bycatch for consideration by multi-lateral environmental and fisheries agreements.

The IWC will focus on developing recommendations for cetacean conservation through its own Committees and Commission processes and build a coordinated and collaborative approach with IWC member governments as well as in relevant RFMOs, such as the Indian Ocean Tuna Commission (IOTC) and Western and Central Pacific Fisheries Commission (WCPFC).

In particular, for the western central Pacific, the activities to be developed (Table 1) include consultancies to estimate annual purse seine cetacean interactions for recent years using observer data, to assess information on longline cetacean interactions, to conduct cetacean bycatch gap analysis (EEZ and ABNJ) and to do a spatial cetacean bycatch rapid-risk assessment (EEZ and ABNJ), as well as a training workshop on (depending on needs) bycatch risk assessment approaches, monitoring and mitigation/management at national and/or regional level. To collaboratively develop recommendations to address cetacean bycatch, coordination and roundtable meetings between stakeholders (e.g. fisheries and environment departments, SPREP, WCPFC and IWC) to discuss cetacean bycatch and potential solutions will be supported, as well as the participation of cetacean experts at WCPFC scientific meetings.

The IWC's capsule has funds to carry out these activities, but it is important to note that the successful completion of the planned activities would depend on the advice, commitment and participation of local experts including the WCPFC-SC and contracting members of the WCPFC.

In support of the above mentioned activities, the IWC aims to conduct several in-kind activities. For the western central Pacific Ocean, these include:

- Collate existing data held within the IWC on cetacean distribution and abundance.
- Create and maintain a spatial database on cetacean distribution (abundance data also) to better assess and understand the level of risk of interactions between fisheries and cetaceans and to support the identification of highest priority fisheries/gears for cetacean bycatch.
- Collate bycatch data (longline, purse seine) available through national or multilateral organisations (such as t-RFMOs), including mapping of effort (if available).
- Engage with partners in the western central Pacific region to develop and possibly adopt a data sharing agreement for use of observer cetacean bycatch data in analyses.
- Conduct scientific review, dissemination and promotion of best practices to reduce and mitigate cetacean bycatch (e.g. FAO MM Guidelines and factsheets, existing online mitigation material such as Bycatch Management Information System – BMIS, and experiences in similar fisheries around the world) to IWC member governments through the Bycatch Mitigation Initiative, IWC Scientific Committee and Commission and including, through the IWC Conservation Management Plans, Database of Recommendations and Conservation database.
- Compile information on the distribution of known cetacean entanglements with fish aggregation devices (FADs).
- Provide technical advice into FAD design for lower entanglement risk to cetaceans based on scientific studies as well as experiments underway by fishery industry organisations, RFMOs, and

national governments where requested.

- Technical advice on best practices for monitoring, assessing and mitigating of cetacean bycatch to WCPFC, SPC, SPREP and IWC member countries where requested.
- Development of IWC recommendations on cetacean conservation.
- Development of draft Conservation and Management Measures (CMMs) for cetacean bycatch for the Indian and Pacific Ocean as possible, including through negotiation on a MoU with partners such as SPREP in the Pacific.
- Provide data on cetacean bycatch to Bycatch Data Exchange Protocol (BDEP).
- Review cetacean and cetacean bycatch mitigation information on BMIS.
- Cetacean expert attendance at planned Joint tuna RFMOs Bycatch Working Group (meetings and/or workshops) as this is a platform for all five t-RFMOs to communicate on shared challenges such as bycatch and would be an excellent forum for sharing outcomes of Tuna II Project.

Table 1. Timeline of activities of IWC’s capsule project for Pacific Ocean.

	2023				2024				2025				2026			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
4. Assess cetacean bycatch, and data gaps across an Ocean Basin - Pacific Ocean																
4.1	<i>Estimate annual purse seine cetacean interactions for recent years using observer data</i>															
4.2	<i>Assess information on longline cetacean interactions</i>															
4.3	<i>Cetacean bycatch gap analysis (EEZ and ABNJ)</i>															
4.4	<i>Spatial cetacean bycatch risk assessment (EEZ and ABNJ)</i>															
5. Build regional capacity and awareness on cetacean bycatch and available solutions - Pacific Ocean																
5.1	<i>(IWC/SPREP/ WCPFC) National and/or regional level (depending on the range of the fishery or fisheries under consideration) training on bycatch risk assessment approaches, monitoring and mitigation/management</i>															
6. Collaboratively develop recommendations to address cetacean bycatch across multi-lateral environmental and fisheries agreements -																
6.1	<i>National coordination and roundtable meetings (Fisheries and environment departments, IWC) to discuss cetacean bycatch, solutions and recommendations</i>															
6.2	<i>Cetacean experts’ attendance at WCPFC scientific meetings</i>															
7	7. Communication, training and outreach (best practices, report publication etc)															

IWC’s Scientific and Conservation Committees

The Scientific and Conservation Committees of the IWC have focused on a number of species and themes that are relevant to the assessment of cetacean bycatch in tuna fisheries of the western central Pacific Ocean (WCPO). The IWC Bycatch Mitigation Initiative ([BMI](#)) and Sub-committee on Non-deliberate Human Induced Mortality (HIM) in particular concentrate on the need to improve the monitoring and mitigation of cetacean bycatch worldwide, including the WCPO, adopting numerous recommendations (see IWC Database of Recommendations – [DoR](#)).

In 2022, the IWC’s Scientific Committee welcomed information provided on the small cetaceans of the South Pacific Islands and the threats that they face. The Committee agreed that future communication and collaboration with the Secretariat of the Pacific Regional Environment Programme (SPREP), and other regional bodies, was needed to better understand and mitigate threats to small cetaceans of the region, particularly with regards to bycatch which for some species, e.g., false killer whales (*Pseudorca crassidens*), is extremely high ([SC2279](#)). The Committee agreed to establish the “South Pacific Island Small

Cetaceans” – Intersessional Correspondence Group (ICG) to consider the status of small cetaceans in the South Pacific region and to establish future research and action priorities ([SC2280](#)).

In 2023, at SC69A meeting, the IWC’s Scientific Committee received a comprehensive overview (Miller, 2023) of the actual and potential threats facing the 34 cetacean species within the waters of the countries and territories of the Pacific Islands: direct take; bycatch; entanglement in and injury from fishing gear; pollution; pathogens and introduced species; resource depletion; deep-sea mining activities and climate change. Bycatch in commercial oceanic purse seine and longline vessels fishing was identified as the most serious threat (Miller, 2023; see SC19-EB-WP-08). Direct take also presents a major threat in some areas for delphinids (e.g., [SC21192](#), [SC2282](#)). Climate change was identified as a long-term threat (Miller, 2023). Given what is known of threats and the paucity of data on offshore species, four focal species were proposed to be included in the forthcoming review to be conducted by the South Pacific Island Small Cetaceans – ICG: short-finned pilot whales (*Globicephala macrorhynchus*); false killer whales (*Pseudorca crassidens*); melon-headed whales (*Peponocephala electra*); and pygmy killer whales (*Feresa attenuata*). A workplan of three to five years is anticipated. To advance the review of South Pacific Islands Small Cetaceans, the IWC’s SC recommended that a proposal be developed for an in-person workshop in collaboration with the BMI that includes multiple stakeholders from the South Pacific Island region; and funds for the workshop are sought both from within and outside the Committee budget (SC23154).

Common ground between the IWC and the WCPFC

The WCPFC and the IWC share 35 member countries, including Australia, People's Republic of China, Kiribati, Republic of Korea, Republic of the Marshall Islands, Nauru, New Zealand, Palau, Solomon Islands, Tuvalu and USA, as well as 24 (out of 27) European Union countries, namely Austria, Belgium, Bulgaria, Republic of Croatia, Cyprus, Czech Republic, Denmark, Estonia, France, Finland, Germany, Hungary, Ireland, Italy, Lithuania, Luxembourg, Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain and Sweden.

In recent years, the IWC has been working to engage with t-RFMOs and partners of the western central Pacific Ocean as well as from the Indian Ocean to assist on assessing cetacean bycatch risk posed by the various gears used, as well as to raise awareness of the effective and practical solutions available to manage and mitigate cetacean bycatch. Since 2020, the IWC and Indian Ocean Tuna Commission (IOTC) Secretariats have been discussing potential collaborative activities on cetacean bycatch (SC/68C/ForInfo/109, SC/68C/ForInfo/110). To formalize the collaborative work on joint activities, in March 2023, the IWC signed a Cooperation Agreement with the IOTC. This agreement will assist in guiding the Tuna II Project in the Indian Ocean over the next four years as it aims to strengthen the monitoring and assessment of cetacean bycatch and the implementation of proper and effective conservation and management measures to reduce it.

In the western central Pacific, the IWC has been collaborating with SPREP, and has participated in SC meetings of the WCPFC. In late 2022, the IWC was granted observer status to participate in WCPFC meetings. The IWC appreciates the opportunity to participate in this meeting. Given the potential benefits from collaboration between the IWC and WCPFC on addressing the shared challenge of cetacean bycatch in WCPO fisheries, the IWC is looking to further engage with the WCPFC and its contracting governments.

The IWC welcomes and invites the WCPFC-SC19 to:

- Note the possible benefits to member countries to collaboratively work with the IWC in addressing cetacean bycatch.
- Endorse the IWC capsule in the context of the GEF/FAO Common Oceans ABNJ Tuna project Phase 2.
- Provide inputs and advise on how best to fulfill the objectives of IWC capsule project.
- Provide suggestions on possible means of collaboration between IWC and WCPFC and its member countries in assessing cetacean bycatch in tuna fisheries.

References

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