



SCIENTIFIC COMMITTEE
ELEVENTH REGULAR SESSION
Pohnpei, Federated States of Micronesia
3-11 August 2016

Update on the ABNJ (Common Oceans) Tuna Project's Shark and Bycatch Components

WCPFC-SC12-2016/RP-ABNJ-01

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Abstract

This paper will present a brief overview of the ABNJ (Common Oceans) Tuna Project activities being led by the WCPFC Secretariat and SPC. These activities are comprised of shark data improvement and harmonization, shark stock status assessment, and bycatch management and information. Over the past year the project has contributed to the adoption of new ROP minimum standard data fields for bycatch, whale shark safe release guidelines, the first WCPFC bycatch data summary template (BDEP), and a global browser tool for t-RFMO shark data. The project will continue to engage with other t-RFMOs on the latter two initiatives. Two of four Pacific-wide stock status assessments are underway in the form of a southern hemisphere porbeagle shark assessment and a bigeye thresher shark assessment. Under the topic of bycatch mitigation, SPC is continuing to re-develop the BMIS, and the first joint analysis workshop on sea turtle mitigation effectiveness was held in Honolulu in February 2016. The second workshop to complete the analysis will take place at the same venue in November 2016. An expert workshop to develop an experimental design for a WCPO shark post-release mortality tagging programme is being contemplated for January 2017. Feedback from stakeholders is invited on current and proposed activities, and opportunities for synergistic collaborations are continuously sought.

1 Introduction

The WCPFC, along with the four other tuna Regional Fisheries Management Organizations (t-RFMOs), is a partner in the Areas Beyond National Jurisdiction (ABNJ) – often referred to as Common Oceans – Tuna Project (www.commonoceans.org). The objective of this project is to achieve efficient and sustainable management of fisheries resources and biodiversity conservation in marine areas that do not fall under the responsibility of any one country. Within this set of activities WCPFC has committed to leading three components:

- Shark Data Improvement and Harmonization
- Shark Assessment and Management
- Global Bycatch Information and Management

The first two components involve working in partnership with the Inter-American Tropical Tuna Commission (IATTC) to improve shark monitoring and management across the pan-Pacific region. The third component is global in scope and focuses on developing a database of bycatch mitigation and management information and conducting workshops to analyse mitigation data. An Execution Agreement between the implementing agency, the Food and Agriculture Organization of the United Nations (FAO), and the WCPFC was signed on 25 October 2014. A Memorandum of Understanding between WCPFC and SPC for activities under the ABNJ Tuna Project was signed on 20 January 2015. The project runs through January 2019 and reports every six months to FAO, and to the WCPFC at the annual Scientific Committee and Commission meetings.

2 Shark Data Improvement and Harmonization

The objective of this component is to work toward developing a practical and consistent approach to monitoring the status of sharks caught by ABNJ tuna fisheries. It focuses on identifying the data deficiencies which inhibit management and proposes strategies to obtain more data through field studies and better information return from fisheries.

Highlights for the second year of the project (July 2015-June 2016) include:

- WCPFC finalized work on cataloguing shark data holdings across the five t-RFMOs using public domain data and circulated a prototype Global t-RFMO Shark Browser (inventory) to the t-RFMOs for comment in February 2016. There is now interest in developing the current interactive slideshow format (available upon request) into an “app” for auto-updated, public use.
- Recommendations arising from an ABNJ Tuna Project-initiated study on modifications to the WCPFC Regional Observer Programme (ROP)’s Minimum Data Standards and Fields collected by longline observers for bycatch were adopted by WCPFC in December 2015 (see WCPFC12 Summary Report, Attachment Q).
- An ABNJ Tuna Project proposal for a bycatch data exchange (compilation) protocol (BDEP) based on a CCSBT model was accepted for trial application by WCPFC and IOTC subsidiary bodies and will be considered by both t-RFMOs in August/September 2016. This effort aims at standardizing bycatch summaries across the t-RFMOs for future data sharing and joint analysis. SPC has been funded under the ABNJ Tuna Project to produce the WCPFC BDEP (see Williams et al. 2016).
- The whale shark tagging programme initiated with NOAA in June 2015 continues (see NOAA Fisheries-USA et al. 2015).
- IATTC has produced a number of shark data improvement outputs including:
 - A data inventory (metadata) paper (Siu & Aires-da-Silva 2016); and
 - A sampling constraints paper (Aires-da-Silva et al. 2016).

In the third year of the project (July 2016-June 2017) the following activities are planned:

- Production of a scientific paper based on findings from the Global t-RFMO Shark Browser prototype, and potentially an “app” based on the prototype, will be pursued.
- An initiative to summarize bycatch data across the t-RFMOs with the production of Bycatch Data Exchange Protocol (BDEP) templates by WCPFC and IOTC (CCSBT already produces this) will continue.
- Ongoing tagging studies of post-release mortality in sharks are underway by ABNJ Tuna Project partners and will continue. These, and a workshop planned under Component 3.1.3, will inform development of an experimental design to be implemented in the WCPO toward the end of Year 3 (or early in Year 4) with existing funds under Component 3.1.1.

3 Shark Assessment and Management

The objective of this component is to identify risks and priorities for shark conservation through assessment, using new data generated by the component above and improved tools developed under this component as appropriate. It will evaluate the existing management framework and develop measures to strengthen shark management by t-RFMOs.

Highlights for the second year of the project (July 2015-June 2016) include:

- The first of four stock status assessments, on the southern hemisphere porbeagle shark, is underway as a joint effort between CCSBT and WCPFC and participating scientists from New Zealand, Japan, Uruguay, Argentina and Chile. The deliverable date of the assessment was recently postponed to early 2017 to allow more range State scientists to participate. Update flyers from January and April 2016 are attached as Annex A.

- The second stock status assessment, on the Pacific-wide bigeye thresher shark, is in progress utilizing longline observer data maintained by the Pacific Community (SPC) as part of the Regional Observer Programme and on behalf of Australia, the Cook Islands, the Federated States of Micronesia, Fiji, French Polynesia, the Republic of the Marshall Islands, New Caledonia, New Zealand, Samoa, Solomon Islands, Tonga and Vanuatu; United States longline observer data; and Japan longline observer data. A spatially-explicit risk assessment methodology is being designed to assess current fisheries impacts against a notional limit reference point (LRP).
- An analysis of whale shark interactions in the WCPO submitted by the ABNJ Tuna Project resulted in the adoption by WCPFC of safe release guidelines for encircled animals (including whale sharks) in December 2015, three years after safe releases were mandated (see WCPFC12 Summary Report, Attachment K).

In the third year of the project (July 2016-June 2017) the following activities are planned:

- Completion of the southern hemisphere porbeagle shark stock status assessment in the first quarter of 2017 in time for presentation at the next CCSBT Ecologically-Related Species Working Group and SC13.
- Completion of the Pacific-wide bigeye thresher shark stock status assessment.
- The third Pacific-wide shark stock assessment is expected to be identified by the end of 2016 based on input from the WCPFC Scientific Committee and consultation with IATTC and other stakeholders.
- If any of these assessments identify a need for management action, the we will explore drafting conservation and management measures for consideration by the t-RFMOs.

4 Global Bycatch Information and Management

The objective of this component, which is co-led by SPC, is to collate, catalyze and disseminate new information that will direct effective management to mitigate impacts on bycatch species including sharks, seabirds, sea turtles and cetaceans. This is expected to help reduce technical uncertainties across a range of stakeholders, allowing t-RFMO discussions to focus on management issues such as cost and feasibility.

Highlights for the second year of the project (July 2015-June 2016) include:

- SPC has employed a BMIS Update and Development Coordinator to plan and oversee the database and web design work. Bibliographic updates and content development are underway.
- BMIS system and website re-design work have recently been initiated with the employment of a systems consultant in early July.
- The first joint analysis workshop on the effectiveness of sea turtle mitigation measures was convened from 16-19 February 2016 in conference facilities graciously provided by the Western Pacific Regional Fishery Management Council (WPRFMC). Participants from Australia, Brazil, Chinese Taipei, Cook Islands, EU, Fiji, FSM, IAC, ISSF, Japan, Palau, Papua New Guinea, RMI, SPREP, Tonga, Uruguay and USA contributed to the analysis and first workshop report (see Clarke et al. 2016a).

In the third year of the project (July 2016-June 2017) the following activities are planned:

- A new version of the BMIS website is planned for launch by the end of 2016.
- A second sea turtle workshop will be held in November 2016 to focus on producing and refining the estimates from the first workshop and on recommending potential policy and data improvements.
- It is proposed to focus the remaining set of joint analysis workshops on shark post-release mortality studies. The first workshop, tentatively planned for Wellington, New Zealand in late January 2017 would bring together experts to share experiences and develop an experimental design for the WCPO study (to be conducted under Component 3.1.1). The second workshop would then discuss the tagging results and their management implications.

5 Consultation

WCPFC and IATTC cooperated to hold a Sharks and Bycatch Consultative Committee meeting in the margins of WCPFC12 in Bali in December 2015 featuring remarks from both Executive Directors and a joint video of 2015 highlights.

(http://www.commonoceans.org/fileadmin/user_upload/common_oceans/docs/Tuna/SharksAndBycatchUpdate2015.mp4). A further annual update will be presented at WCPFC13 in Fiji.

WCPFC and IATTC technical staff consult quarterly through a newly formed ABNJ Shark and Bycatch Pan-Pacific Technical Steering Group composed of representatives from WCPFC, IATTC, SPC (the new Kobe Technical Working Group-Bycatch (TWG-BYC) Chair), NOAA and the former Kobe TWG-BYC Chair.

WCPFC CCMs and other interested parties are welcome to contact the ABNJ Tuna Project's Technical Coordinator-Sharks and Bycatch at any time with ideas for collaborative projects.

6 Other Activities

In addition to the activities described above which form the core work programme of the ABNJ (Common Oceans) Tuna Project, the Technical Coordinator-Sharks and Bycatch also participated in the following non-ABNJ activities during July 2015-June 2016:

- Contributed "Bycatch is Troublesome—Deal with It!" to the SPC Fisheries Newsletter and WCPFC website in September 2015;
- Developed a presentation and quiz on WCPFC bycatch issues and delivered it to China fishing vessel operators at a training session in Shanghai in October 2015;
- Advised the WCPFC Chair and Secretariat on bycatch issues (throughout);
- Prepared a paper on information available to evaluate effectiveness of the Commission's measure on shark finning in May-June 2016 (Clarke et al. 2016b);
- Prepared a paper on elaboration of technical details regarding targeting and shark management plans for CMM 2014-05 in May-June 2016 (Clarke 2016);
- Participated in the FAO Expert Advisory Panel for the Assessment of Proposals to Amend Appendices I and II of CITES in June 2016 (FAO 2016).

7 References

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Annex A. Update flyers from January and April 2016 for the Southern Hemisphere Porbeagle Stock Status Assessment project.

Southern Hemisphere Porbeagle Stock Status Assessment

Update January 2016

Programme: Since their start of work in August 2015, NIWA (New Zealand) has progressed through a number of tasks in the five-stage work plan for the southern hemisphere porbeagle stock status assessment. The first two tasks, develop a work plan and initiate indicator production with national participants, have been completed in 2015. Work now proceeds with synthesizing the initial indicator results into preliminary stock assessment and risk assessment models.

Progress: Through generous support from New Zealand's Ministry for Primary Industries, and in-kind support from Japan's Fisheries Research Agency, draft indicator series have been produced as the result of two weeks of collaborative work in Japan in November 2015. New Zealand will produce national indicators in February 2016, and Uruguay and Argentina have produced initial series and are currently working to finalize them. Chile and Korea have committed to indicators work over the next few months, and relevant data from Australia, SPRFMO, Kerguelen and the tuna RFMOs has been either obtained or identified. A stock assessment model framework has been developed in Stock Synthesis and work on the risk assessment approach will begin shortly.



Outlook: The work plan was designed with the intention of presenting the assessment results to either the next CCSBT ERSWG (not yet scheduled) or the WCPFC SC (next meeting 2-11 August 2016 (SC12)). If all national indicators series proceed on schedule to completion over the next four months, it may be possible to meet the submission deadlines for WCPFC's SC12. However, providing for some flexibility in the timeline might be worthwhile if it allows more of the national indicator series to reach a higher level of refinement and still provides for presentation of the assessment results at the CCSBT's ERSWG.



For additional information, contact:

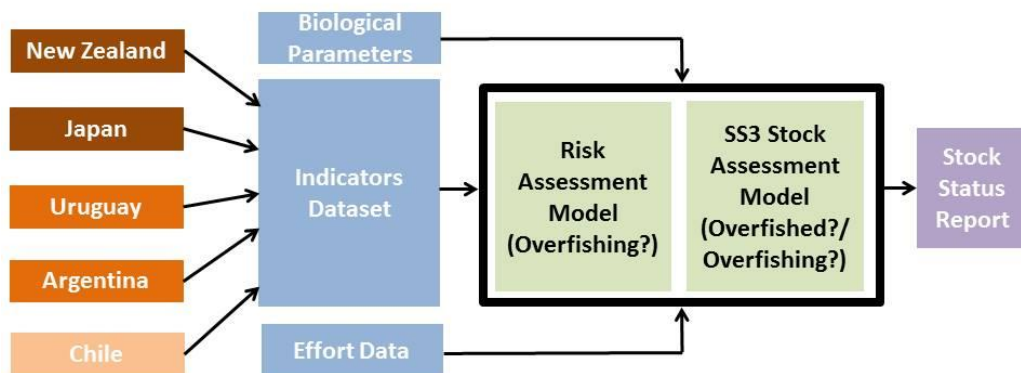
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Southern Hemisphere Porbeagle Stock Status Assessment

Update April 2016

Recap: Consultants (NIWA and Dr Carlos Bustamante) began work on the study in August 2015 and as of December 2015 were in contact with scientists from several porbeagle range States including Argentina, Chile, Japan, Korea, Namibia, New Zealand, South Africa, Chinese Taipei and Uruguay, to explore whether stock status indicators can be produced. Consultants spent two weeks on site in Japan in November 2015 resulting in collaboratively-produced national indicator series. Relevant data from Australia, SPRFMO, Kerguelen and the tuna RFMOs had been either obtained or identified.

Extension: The study results are not due to be reported to the CCSBT Ecologically-Related Species Working Group until its next meeting in 2017, and can be presented to WCPFC in August 2017. Noting this and recognizing that the study is a rare opportunity to obtain information about southern hemisphere porbeagle shark, the project's deliverable schedule has been extended to allow for better development of indicators by project collaborators. The outline stock status report is now due at the end of October 2016 and the draft stock status report at the end of January 2017.



Progress: Two national indicator series are nearing completion: New Zealand's indices are complete but being updated with observer data for 2014-15 and Japan is working to finalize their indices by resolving some minor outstanding issues. Two other national indicator series are still in progress: Uruguay and Argentina have produced draft series but are still actively working with the consultant to explore patterns in the datasets. Following some initial consultation, the consultants hope to assist with national indicator series from Chile but are awaiting details of what data are available. A stock assessment model, which will address both stock status and exploitation rates, and a risk assessment model, which will address exploitation rates only, are both under active development.



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