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Review of mitigation measures to reduce the impacts of fishing on
high-risk non-target species taken during fishing operations within the

SIOFA area

Relate to agenda item:7.3

Working paper Info paper Restricted

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Review of mitigation measures to reduce the impacts of fishing on high-risk non-target species taken during fishing operations within the SIOFA area.

Report prepared in accordance with Project PAE2021-02. TOR 3: Provide recommendations for mitigating the impacts of fishing on bycatch species, seabirds, and mammals, particularly those that are assessed by the ERA work as being significantly at risk

Executive Summary

Ecological risk assessments for seabirds, marine mammals and fish bycatch have identified that subareas 1, 2 and 3b (west of 40°E) is an area where high risk species have the greatest likelihood of interacting with SIOFA fisheries. Key recommendations for SIOFA to consider are:

- The greatest risk for seabirds appears to be from interaction with the pelagic longline fishery and it is recommended that CMM 2019/13 be revised to address all fishing gear used in SIOFA and include specific mitigation measures for seabird bycatch consistent with ACAP best practice advice.
- To address potential impacts on marine mammals SIOFA should provide an annual report on all lost gear reported under CMM 2021/02. Annex A. Observations of marine mammals interacting with fishing gear should be reported under CMM 2021/02 Annex B.
- SIOFA should engage with the IMMA designation process in order to ensure that fishing in areas of particular importance to marine mammals is managed accordingly.
- In the interim of the adoption of additional measures, including bycatch limits for relevant deep sea shark species (see CMM 2019/02 paragraph 4), SIOFA should introduce measures to reduce/avoid demersal longline fishing in SIOFA subarea 2.
- SIOFA should review the implementation of the reporting requirements for *Intended Target* species in the *Haul Information* section of CMM 2021/02.
- In order to improve the understanding of, and ability to address, ecological risks the taxonomic level of reporting in Vessel Catch and Effort Data section of CMM 2021/02 should be improved. This could potentially be achieved through insertion of the following paragraph:
 - 4 bis. CCPs shall ensure that fishing vessels flying their flag record and submit all catch reporting requirements as per Annex 1 to the lowest taxonomical level possible when caught in SIOFA fisheries”.

Introduction

Measures to reduce the risk of the impacts of fishing on high-risk, non-target taxa typically consists of technical modifications to gear and/or management-related controls. Gear modifications include additional weights added to lines to increase sink rates and exclusion devices fitted to trawl nets to avoid marine mammal capture. Management controls include spatial and temporal closures for a particular fishery as well as bycatch limits and move-on rules that are triggered to catches of particular species. The extent of measures implemented should be proportionate to the risk and should aim to:

Avoid fishing activities in particular areas or at times where there is risk is greatest,

Mitigate the risk by modifying fishing practices to reduce the attraction to fishing vessels and gear to reduce the risk of non-target catch

Limit the level of non-target catch with responsive management measures such as move on rules, setting restrictions (e.g., switch to night setting) and individual vessel catch limits.

Overall, the ecological risk assessments for seabirds, marine mammals and fish bycatch identified subareas 1, 2 and 3b (west of 40°E) as an area where high risk species have the greatest likelihood of interacting with SIOFA fisheries (see Figure 1). This area has the greatest density of utilisation by the highest risk seabirds, indeed the highest density of the Tristan albatross occurs in the same 5° cell as the highest density of catches taken with pelagic longline. Catches of deepwater sharks are highly concentrated in SIOFA subarea 2 on the Madagascar Rise, an area that is also a candidate IMMA. This concentration of species and activities that emerge from the ERA process provides a well-defined area of concern within the SIOFA area.

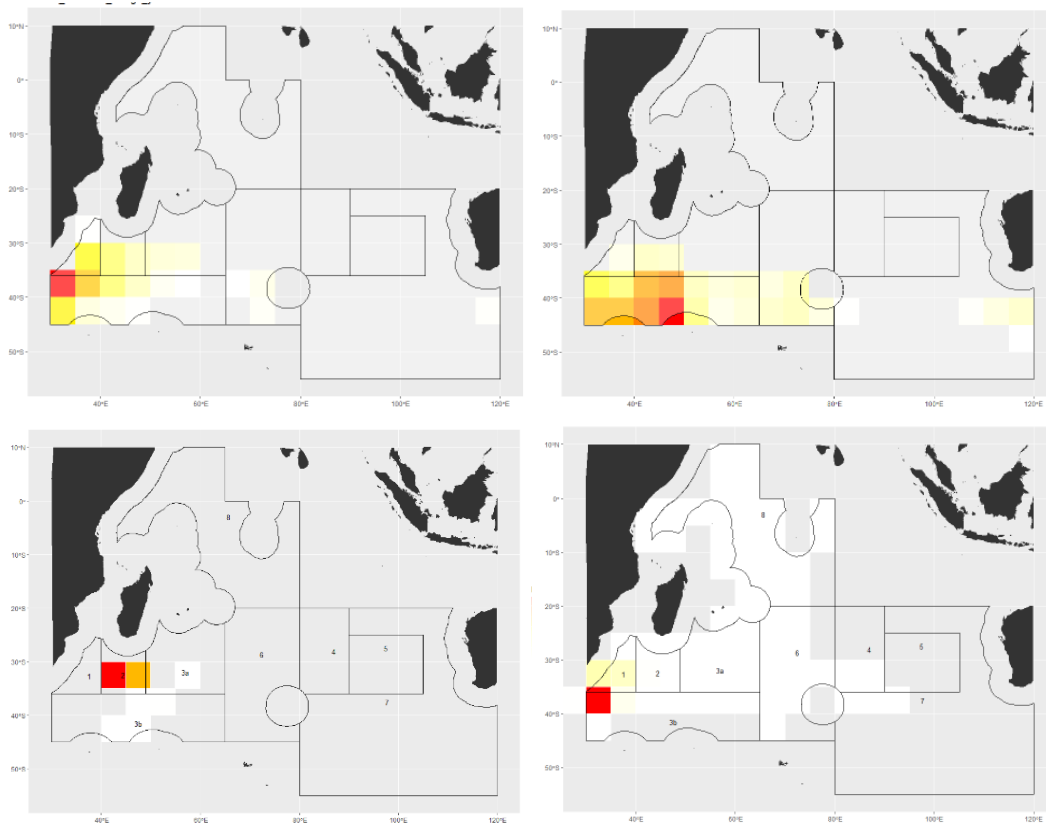


Figure 1. Spatial distribution of high-risk bird species (a Tristan albatross and b. Wandering albatross), catches of deepwater shark taken by demersal longline (c. Portuguese dogfish *Centroscymnus coelolepis*) and catches of oilfish taken by pelagic longline fishing.