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**Port-Based Outreach to improve mitigation of impacts to ecologically related species from
WCPO fisheries.**

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BirdLife International

WCPFC20: Agenda Item 12b: Seabirds

Port-Based Outreach to improve mitigation of impacts to ecologically related species from WCPO fisheries.

Implemented by BirdLife International, Suva, 2019-2022

KEY INFORMATION:

- 202 longline vessels registered in the WCPFC have been visited in port at least once since 2019.
- All crews are aware of the mitigation measures and best practice for dealing with hooked turtles and sharks (with cetaceans treated the same as sharks).
- Only 20% of vessels that travel south of 25°S had a tori line on board on the first visit.
- A Fijian women's group, tasked with constructing the tori Lines, has proved to be an effective way of ensuring that Seabird Mitigation Measures are available to vessels at no cost.
- To-date 62 tori lines have been constructed and 55 of these have been distributed to vessels

BACKGROUND

Spatial overlap studies using seabird tracking and fisheries vessel location data have indicated that a high proportion of vessels overlapping¹, and potentially interacting with threatened seabird species, notably the endangered Antipodean Albatross² (*Diomedea antipodensis*) were using the Port of Suva to offload catch and restock supplies. In response, BirdLife International established a Port Based Outreach (PBO) program in Fiji in 2017. The objective of the project is to raise awareness of the requirements for utilising seabird mitigation measures by vessels fishing in the high seas (areas beyond national jurisdiction) south of 25°S. The PBO is in the longline fisheries sector focusing on best practices to mitigate the impact of fishing on seabirds and addressing relevant Conservation and Management (CMM) requirements of Regional Fisheries Management Organisations (RFMOs), specifically in the convention area of the Western and Central Pacific Fisheries Commission (WCPFC). It is not a compliance activity.

In 2021, the project was extended to include bycatch mitigation and safe handling and release methods for other species of special interest (SSIs), such as turtles, cetaceans, and sharks. While there was a disruption of port-based activities in 2021, due to Fijian government COVID related lockdowns, BirdLife International staff worked virtually to improve their contacts/liasons with the locally based fishing industry and were able to restart vessel engagement in early 2022, with a significantly enhanced network of contacts. This report summarises key results from four years of PBO activities undertaken by BirdLife International during the period of 2019 to September 2022.

Results

Since 2019, the PBO officer has visited a total of 202 vessels at Port Suva. The number of vessels visited has followed an increasing trend annually, apart from 2021, due to the COVID pandemic. Most vessels visited were flagged to China, with 63% (128 of 202) of all vessels visited. This proportion has remained consistent

¹ Bose & Debski 2022, <https://meetings.wcpfc.int/node/16338>

² <http://datazone.birdlife.org/species/factsheet/antipodean-albatross-diomedea-antipodensis>

over the four years of the study, with a minimum of 54% and maximum of 61% of all vessels flagged to China visited per year. The Chinese flagged vessels visited through the PBO represents one third of the total 383 Chinese flagged vessels registered to fish in the high seas of the Western and Central Pacific Fisheries Commission (WCPFC) convention area.

Twenty-nine percent of vessels visited (58 of 202) were operating under the Fiji flag, with a minimum of 31% and a maximum of 35% of all vessels visited each year. The Fiji national longline fleet comprises of 95 vessels according to 2018 data, which suggests that more than 60% of Fiji-flagged longline vessels have been visited. The 2022 WCPFC dataset identifies 22 Fiji-flagged vessels with licences that have not yet been visited. Another 8 Fiji-flagged vessels were visited that are not on the current WCPFC dataset (as of December 2022). There are 61 licenced vessels that are flagged to Vanuatu in the WCPFC dataset, of which 13% (10) have been visited. Opportunistic visits to vessels docked at Port Suva included Chinese Taipei and Cook Islands flagged vessels. This included one WCPFC licenced long line vessel with a Cook Islands flag. Conversely, the few Chinese Taipei (4 of 202) vessels that have been able to be visited represent a fraction of the fleet licenced to fish in the WCPFC-controlled waters.

Fijian flagged vessels have a higher rate of repeat visits than Chinese flagged vessels. Generally, Chinese-flagged vessels return to Port of Suva less frequently than the Fijian-flagged vessels due to the length of trips, latitude of fishing efforts, and whether the vessels visit ports other than Suva. The expansion of emphasis to other SSIs (that includes all vessels operating in the offshore fisheries (2021 and 2022)) in addition to seabirds (that focuses on vessels travelling >25°S (in 2019 and 2020) has meant that Fijian-flagged vessels have been targeted more frequently in 2022 as they fish in more tropical latitudes where they interact with turtles, sharks and cetaceans more frequently than seabirds, which are more abundant in lower latitudes.

Over a half of all the vessels have been visited by the PBO officer more than once (105 out of 202). Nearly one third have been visited twice (65 of 202), and one quarter of vessels have been visited three or more times (Figure 1).

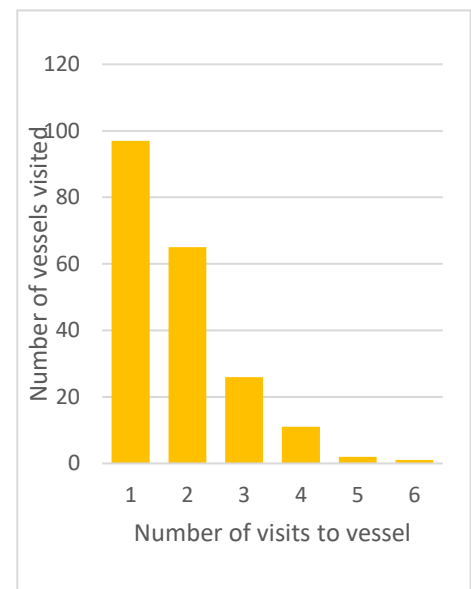


Figure 1: Variation in number of visits to vessels.

TURTLES: During the vessel visits, the PBO officer would request to see the de-hooker and record whether the de-hooker was present or not. Crew understanding of how to use the equipment and handling of bycaught turtles was discussed and advice provided when knowledge was lacking. If there was no de-hooker on board, the acquisition of one would be recommended. From the beginning of 2022 until September, 132 vessels were visited. Of these, 108 (82%) had a de-hooker on board. In subsequent visits to four of the vessels that did not have a de-hooker, one (25%) had obtained a de-hooker on the second visit. From discussions with the crew, there was a clear impression that the crew were aware of the mitigation measures for handling and release of bycaught turtles. However, the crew also indicated that bycatch interactions with turtles was very rare.

SHARKS & CETACEANS: Discussions were had with the crew to see if they understood the best practices for handling (i.e., avoid bring sharks/rays/cetaceans on board) and releasing sharks, rays, and cetaceans using the guides provided through the WCPFC, including specific information on the use of wire-leaders and shark lines and the prohibition of shark finning. The PBO officer also requested to see the equipment that would be used to cut the line if a shark was caught. Information on the best practice methods for dealing with shark and

cetacean bycatch has been made available and is either posted in a public area of the vessel or held by the ship’s captain. All 132 vessels visited were able to show that they had the capacity to effectively cut the line should a shark/cetacean get caught.

SEABIRDS: In contrast to turtles, sharks, and cetaceans, seabird bycatch mitigation measures aim to avoid captures rather than how to minimise mortality when/if caught. Seabird bycatch mitigation measures are required only for vessels fishing south of 25°S since January 1st, 2020, and only for vessels fishing 30°S prior to this. The mitigation measures are the simultaneous use of two of the following: bird scaring lines or tori lines, weighted branch lines, and setting at night, or the stand alone measure of hook shielding devices. In the years between 2019 and 2021 we targeted vessels travelling 25°S – to raise awareness regarding the change in regulations in 2020 and to assess the extent to which vessels had adequate mitigation measures on board.

Tori Lines: Port based outreach found that 38 of the 193 vessels (20%) were carrying tori lines on the first visit to the vessel (Figure 3). Of the 89 vessels that had no tori lines on the first visit, 12 (13%) had obtained tori lines prior to the second visit. Of the 31 vessels that had no tori lines on the second visit, 2 (6%) had obtained tori lines prior to the third visit. The proportion of Fiji-flagged vessels where we recorded tori lines on board was 29%, this is similar to the proportion of Chinese-flagged vessels, 27%. Not all vessels require tori lines – these are only required when fishing 25°S or below. In figure 2, the lower measure (dark grey) is the known number of vessels with tori lines on each visit. The middle measure (medium grey) is the increase in number of vessels assuming that the percentage increase, based on the sample of vessels visited between the visits, is consistent across all vessels. The true increase is likely somewhere in the middle, as we may have subconsciously targeted vessels that we thought may have tori lines for follow up visits. The light grey is the number of vessels without tori lines on board. We do not yet have precise information on the proportion of vessels that require tori lines – a rough guide would suggest that around 20% of all vessels that use Port of Suva travel below 25°S.

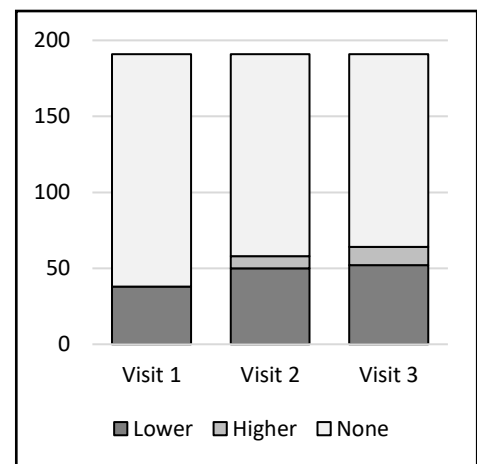


Figure 2: Proportion of vessels visited with tori lines on boards by visit.

TORI LINE PROVISION: In 2018, a women’s group was established in Makoi, Nasinu to construct tori lines for the PBO project at Port Suva. The New Zealand Government provided funding, training, equipment, and staff support to get the project started. To-date, 62 tori lines have been constructed, and 55 of these have, or will soon be distributed to companies. A 12 further tori lines have been requested.

Initial attempts to charge the companies to purchase the tori lines meant that very few were purchased because the cost was cited as a prohibitive factor. To address this resistance, we were able to raise funds to cover the costs of the lines and the construction, and so, from 2020 the lines have been freely available to captains of vessels who indicated that they were planning to fish south of 25°S. While it is a requirement for vessels to use seabird bycatch mitigation when fishing south of 25°S in the WCPO, vessel operators often cite cost as being a prohibitive factor in obtaining tori-lines. Further, there are no easily accessible sources of pre-made tori lines and fashioning a tori line from available materials on the vessel generally does not result in a compliant tori line.

Weighted lines increase the speed with which the hooks descend below where they are available to foraging seabirds. During the PBO visits, we asked vessel captains about the use of weighted lines – and inspected the lines to identify which vessels were supplied with weighted lines. Of the 193 vessels, 34 (18%) were equipped with weighted lines when we made our first visits. Of the 86 vessels that had no weighted line on Visit 1, 2

were equipped by the second visit. Of the 13 vessels that had no weighted line on Visit 3, 1 was equipped by the fourth visit. It is likely that between 37 and 40 vessels are equipped with weighted lines.

There are some safety issues with the use of weighted lines and flybacks, which can injure and in some cases cause fatalities of crew depending on the set up of the gear. Methods to mitigate flyback is using swivel weights and hauling modifications that utilise the vessel structure to create a shield for where the flyback is likely to occur. During PBO, the officer discusses these safety concerns with the crew where possible, and how to minimise safety risks. Several vessel captains did express interest in using hook-shielding devices at some stage in the future – depending on the support of the ships company.

Summary

Between 2019 and September 2022, engagement visits to 202 vessels that use the Port of Suva were conducted. These vessels are either unloading catch or picking up supplies prior to the next fishing expedition. Most vessels visited were either Chinese-flagged or Fiji-flagged vessels. We have limited information on 19 of the vessels that we have visited – 12 of these are Chinese-flagged and 7 Fiji-flagged vessels. The vessel name appears not to correlate with vessel names on the WCPFC vessel licence registry. All but 4 of the vessels were visited, for the first time, in 2022, so it could be that the vessels haven't yet been added to the publicly accessible database by the WCPFC Secretariat.

Our understanding is that all crews are aware of the mitigation measures and best practice for dealing with hooked turtles and sharks (with cetaceans treated the same as sharks). This is perhaps because simplified graphics of handling and release of turtles, for example³, have been promoted to fleets. All crews have access to line cutters, for use in everyday fishing operations – and to minimise the time spent dealing with hooked sharks and cetaceans. Most crews have access to turtle de-hookers but, because this is a rare event, sometimes the de-hookers get misplaced, likely because the practice of de-hooking is not regularly practiced by new crew, thus there is an attrition of knowledge as crew move among fleets or leave the industry. When the crew don't know the location of the de-hooker, the PBO officer advises that this is non-compliant. This usually results in a replacement being obtained rapidly.

We found that fewer captains of vessels were aware of the seabird bycatch mitigation measures compared with turtle, shark, and cetacean measures. Awareness-raising has been a key objective of the PBO officers' role. Clarity in understanding the requirements that vessels are obligated to follow is impeded by the fact that the seabird bycatch mitigation measures only apply to vessels operating south of 25°S. We noted that vessels offload their tori lines if they plan not to go 25°S on a fishing trip. Tori lines can be passed from vessel to vessel within the company, which may result in tangling, damage, or loss. We also note that many of the vessels had not fished below 25°S immediately prior to visit and didn't plan to fish below 25°S immediately after the visit. In such cases, there is no requirement to use seabird bycatch mitigation measures during this time. Most captains were happy to take tori lines if they were freely available. However, we do not yet know whether the tori lines are being used because some of these vessels have not been revisited yet. We requested photographs of the lines in action but, to date, have only received images of 'self-made' tori lines and not best practice compliant lines made by the women's group.

Weighted lines are not transferable among vessels. The time taken, and cost, of switching to and from weighted lines would preclude their removal – and reduce the ease with which they can be taken up. To date c20% of vessels visited were using full sets of weighted lines. There is evidence that vessels are slowly switching

³ <https://www.wcpfc.int/doc/supplcmm-2008-03/wcpfc-guidelines-handling-sea-turtles-graphics>

to weighted lines – whenever sets get lost then the replacements are weighted lines. Many lines used by vessels that fish south of 25°S are now hybrid lines. This means, that part of the set includes weighted lines, and part does not have weighted lines. While this is non-compliant with the measures, the stepwise adoption of weighted lines is considered progress, and the PBO officer reminds vessels of the full requirements for line weighting during their visits.

In conclusion, port-based outreach is an effective mechanism to improve awareness and implementation of bycatch mitigation and handling practices for ecologically related species on WCPFC fishing vessels. BLI recommend expanding this program to other ports and are eager to work with Member States to establish bespoke outreach programs that meet their specific needs.

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