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Namibian large pelagic longline fleet: creating a baseline to assess the impact of this fishery on seabirds

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The Common Oceans Tuna Project, also known as "Sustainable Management of Tuna Fisheries and Biodiversity Conservation in Areas Beyond National Jurisdiction (ABNJ)", aims to achieve responsibility, efficiency and sustainability in tuna production and biodiversity conservation in the ABNJ through a systematic application of an ecosystem approach in tuna fisheries.

BirdLife South Africa (BLSA) is implementing the seabird bycatch component of the Common Oceans Tuna Project. As part of this project a Seabird Bycatch Mitigation Instructor has begun to monitor the Namibian large pelagic longline fleet.

The Instructors' main objectives are: i) collecting baseline information on the gear configuration of the Namibian large pelagic fleet; ii) collecting data on the extent and nature of seabird bycatch in this fishery, iii) support the introduction and effective use of best practice seabird bycatch mitigation measures, where needed.

This paper reports on the data collected in the Namibian pelagic longline fleet to date, providing a baseline for this fishery.

1. BACKGROUND

Namibia is responsible for as much as 10% of the global seabird bycatch tally in longline and trawl fisheries, with ~30,000 birds killed per year in the hake longline and trawl fleets. However, at sea research has demonstrated that simple and effective measures can rapidly reduce the scale of mortality in these fisheries and on the 1st November 2015 regulations for seabird bycatch mitigation measures for trawl and demersal longline operations came into effect. Two workshops were held in Walvis Bay, Namibia to support local fishing companies, government and fisheries observers in the implementation of seabird bycatch mitigation measures as set out in the regulations. The aims of the workshops were to provide information on current options of mitigation measures, develop a collaborative plan to support the implementation of the measures, identify gaps in the implementation of these measures and consider options for obtaining feedback on the compliance of these measures.

Currently no regulations are in place for the pelagic longline fishery, and much of Namibia's Exclusive Economic Zone (EEZ) falls outside the area (south of 25°S) where the International Commission for the Conservation of Atlantic Tunas (ICCAT) requires tuna longline vessels to use two out of three seabird bycatch mitigation measures (ICCAT Recommendation 11-09). However, some of Namibia's waters do fall within the area where seabird bycatch measures are mandatory, and so currently there is some non-compliance by Namibia of Rec 11-09. Also, ICCAT is currently reviewing Recommendation 11-09 and might extend the area of application of the conservation measure to include more Namibian waters. The Critically Endangered Tristan Albatross (*Diomedea dabbenena*) and the Endangered Atlantic Yellow-nosed Albatross (*Thalassarche chlororhynchos*) both forage extensively within Namibia's waters north of 25°S (Reid et al. 2013, Dias et al. 2017), and longlining is a significant cause of the poor conservation status of these, and other seabird species. It is therefore conceivable that Namibian tuna longline vessels have incidental catch of seabirds, thereby contributing to the extinction trends of threatened albatrosses.

To generate a seabird bycatch estimate for the Namibian large pelagic longline fleet, a Seabird Bycatch Mitigation Instructor was employed under the Common Oceans Tuna Project which is managed by BirdLife South Africa and developed in collaboration with BirdLife International and the Namibian Nature Foundation.

2. PROGRESS TO DATE

2.1 Characterization of the Namibian large pelagic fishery

Namibia has a small fleet (13 surface longline vessels, 10 Namibian flagged & 3 foreign) targeting mainly blue & short-fin make sharks within its Exclusive Economic Zone. On the high seas, one Namibian vessel targets swordfish and tunas, with another six foreign-flagged vessels (from Japan, Panama & Spain). These foreign-flagged vessels land their catch in Namibian ports. As a member of ICCAT, vessels operating south of 25° South must use seabird bycatch mitigation measures as stipulated in ICCAT recommendation 11/09, while those operating north of this area, currently have no legal obligation to do so. Observer coverage in Namibia is high, with approximately 90% coverage on all vessels.

2.2. Summary of at-sea data collected

The Namibian Seabird Bycatch Mitigation has concluded two data collection trips on board local Namibian large pelagic longline vessels and was on a third trip at the time of writing. Trips

have been conducted on 3 different vessels. Table 1 summarises findings from the first two trips, providing an insight into aspects of this fishery which relate to seabirds.

	Vessel 1	Vessel 2
Length (m)	44.5	35.2
Gross tonnage	607	361
Fishing area	24-29° South	23-26° South
Weather conditions	2-4	3-5
(Beaufort Scale)		
Number of sets observed	51	36
Number of hooks set	74 127	53 840
Number of hooks recovered	unknown	53 755
Number of hooks observed	65 000	51 250
Bait used	Mackerel and Squid	Mackerel and Squid
Line set time (% of hooks set at	17:00-midnight (43%)	17:00-midnight (83%)
night)		
Line haul time	05:00-16:00	05:00-16:00
Type of mainline/branch line	3.6 mm monofilament	3.6 mm monofilament
Branch line length (m)	11.5	13.5
Upper branch line length (m)	10.5	10.5
Lower branch line length (m)	0.5 (wire)	0.5 (wire)
Line weighting	60 g swivel at ~1 m	$60 \mathrm{g}$ swivel at ~3.5 m
	from the hook	from the hook
Light sticks used (Yes/No)	Yes	Yes
Hook size	9 J	9 J
Offal discarded during setting	No	No
Bird-scaring lines (% usage)	0	0
Seabird bycatch	2 Atlantic Yellow-nosed	0
	Albatross, hooked during	
	hauling, birds released alive	

The two Namibian vessels sampled to date were not compliant with ICCAT regulations, despite most of the fishing effort taking place south of 25°S. Vessels used neither bird-scaring lines nor night setting (there is a common misconception that setting *some* of the line into the night qualifies as 'night setting'; this is not correct). Both vessels used line weighting, and both conformed to ICCAT's minimum specifications (but not to ACAP's current advice).

The very limited observer effort to date, and the timing of coverage (summer, low seabird abundance) means that conclusions regarding seabird bycatch rates in Namibia's pelagic longline operations cannot be made. Additional trips are planned with the aim to complete coverage on all 10 Namibian-flagged vessels.

References

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