



agriculture, forestry & fisheries

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South Africa's Annual Report to the Ecologically Related Species Working Group (ERSWG) of the Commission for the Conservation of Southern Bluefin Tuna.

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1. Introduction

Southern bluefin tuna is only caught in South Africa by means of the swordfish and tuna longline vessels. The swordfish longline vessels are domestic vessels that mainly target swordfish, yellowfin and bigeye within South Africa's Exclusive Economic Zone ("EEZ") and catch southern bluefin tuna as by-catch. These vessels set after dusk, using shallow sets, squid bait and light sticks. The longline system used is based on the American system, i.e. monofilament mainline used. The tuna longline vessels target yellowfin and bigeye tuna and also catch southern bluefin tuna as by-catch.

South Africa is currently in the process of developing this sector of its fishery and recognises that no suitable domestic vessels exist for this fishery. Furthermore, South Africans are not suitably skilled to target tuna using longline. Consequently, there is a significant reliance on chartering of foreign vessels to source suitable vessels for reflagging and for skills transfer to South Africans. All vessels set lines after midnight using braided multifilament, fish bait, but no light sticks are used. These vessels also regularly use bait casting machines and line setters. Southern bluefin is mainly caught inside South Africa's EEZ towards the southern part, which is represented by Statistical Area 9.

The South African longline fishery mainly operates during the winter months (May – September). When the vessels are operating in this area during the winter months, the catch rates of other tuna and tuna-like species decrease due to the fishery operating at the furthest limit of these species geographical distributions. Seabird mortality interaction is high in South Africa's EEZ and much effort has been focused on mitigating measures to reduce seabird

mortality to bring it in line with South Africa's National Plan of Action for Seabirds ("NPOA-seabirds").

2. Review of SBT Fisheries

South Africa has had a brief history in targeting southern bluefin tuna in the early 1960s along the west coast of South Africa where southern bluefin was one of the most common species caught on longline. This fishery ceased by mid-1960s in favour of developing other more lucrative fisheries. Interest in longline fishing only resurfaced in the mid-1990s when joint operations with a Japanese vessel showed that tuna could be profitably exploited within South Africa's EEZ. Subsequently, 30 experimental longline permits were issued in 1997. The experimental fishery was finally closed in 2005 when 50 long-term fishing rights were made available for allocation. The 50 rights were further split between 20 swordfish-directed rights and 30 tuna-directed rights. In the allocation only 44 rights (18 swordfish vessel and 26 tuna vessels) were allocated to South African companies. Activation of the entire fleet remains a challenge due to low catch rates, increasing fuel costs and lack of suitable vessels and skilled crew. In 2008 only 25 vessels were active (12 South African, 11 Japanese, 1 Korean and 1 Philippine vessel). The majority of the vessels fish out of Cape Town harbour and fish the area between Saldanha Bay on the west coast to Port Elizabeth on the South East coast of South Africa. A few vessels operate out of Richards Bay along the east coast of South Africa. Trends in catch rates are difficult to identify for southern bluefin tuna as much of the catch of southern bluefin tuna is caught while targeting swordfish, yellowfin and bigeye. The deliberate non-targeting of southern bluefin is due to the limited size of South Africa's southern bluefin quota. Despite southern bluefin tuna not being targeted South Africa has regularly caught its full quota since 2007 and in many years the fishery was forced to close rather early in the fishing season.

3. Fisheries Monitoring for Each Fleet

South Africa initially established a national scientific observer programme for the tuna and swordfish longline fishery in 1998. The programme was aimed to achieve 20% on board observer coverage of all fishing trips. In 2005 South Africa formally allowed the charter of foreign fishing vessels where 100% observer coverage was required at the cost of the South African right holding company. In March 2011, the Department of Agriculture, Forestry and

Fisheries (Department)'s observer contract expired and no subsequent observer coverage was possible on domestic vessels. The Department is currently in the process to re-establish the national observer programme and to this end, a Service Provider has been recommended and approached and the Department is awaiting acceptance of the offer. One hundred percent observer coverage is still maintained for the charter fleet. The observers are required to collect independent data on each set made and retrieved. Data includes effort, the area fished, environmental conditions, number of seabirds, turtles killed, compliance with permit conditions, species composition, length frequencies, mauling, release and discard data. The observers have also been instructed to collect biological samples from time to time.

4. Seabird¹

Seabird interaction is high in the waters along the south coast of South Africa. An alarming number of seabirds (albatross and petrels) were caught in the fishery which has resulted in stringent bird mitigation measures to be implemented in the fishery in accordance with South Africa's NPOA-Seabirds. For the swordfish longline vessels, mandatory mitigation measures included line weighting and deploying of tori lines. For tuna longline vessels, mandatory measures include night setting and deploying of a tori line. In addition, bird limits were implemented per vessel. Once the first limit is reached and the vessel has been compliant then the vessel is allowed to continue fishing, but with more mitigation measures, including double tori line, line weighting (tuna vessels) and night setting (swordfish vessels). Through compliance to these measures observed seabird mortality was reduced to 144 seabirds in 2012, which represented 0.054 seabirds per thousand hooks. All seabird catches made in the tuna and swordfish longline fishery is reported to The International Commission for the Conservation of Atlantic Tunas ("ICCAT") and Indian Ocean Tuna Commission ("IOTC"), respectively. South Africa is also in the process of investigating smart hooks and hook pods as a possible means to eliminate seabird mortality.

5. Other Non-target Fish¹

Blue and shortfin mako sharks comprise a significant proportion of the total catch of the tuna sector. In 2012, the two shark species accounted for approximately 630 t. These sharks are allowed to be retained, but may not exceed 50% of the total weight of the catch. This limit

¹ This information should also be provided by species (including the scientific name) wherever possible.

was originally 10% but was increased to 50% when South Africa terminated its directed pelagic shark longline fishery. The charter vessels are limited to 10% of the total catch. Other additional measures include the ban of wire leaders and stainless steel hooks. Other sensitive shark species have been banned. This includes oceanic whitetip, thresher, hammerhead, silky, Porbeagle and Dusky sharks. The Department is also finalizing the NPOA-sharks which would further prioritise shark research and management issues so as to improve the sustainable management of shark resources. All shark catches made in the tuna and swordfish longline fishery is reported to ICCAT and IOTC respectively.

6. Marine Mammal and Marine Reptile¹

Although killer whales and pilot whales have been observed on several occasions mauling fish caught on the longline no South African records exist for any of these species to be caught on a longline. Turtle catches are rare and are more often caught by the swordfish vessels which set lines within 50m of the surface and use squid bait. The most common turtle species caught are loggerhead and leatherback turtles, but due to the branch lines being longer than the bouy lines these animals are able to swim to the surface to breathe and hence turtles are mainly released alive by means of appropriate dehooking devices. All turtle catches made in the tuna and swordfish longline fishery is reported to ICCAT and IOTC respectively.

7. Mitigation Measures to Minimise Seabird and Other Species Bycatch

All mitigation measures have been included in permit conditions which fishers have to adhere to.

A summary of seabird mitigation measures are as follows:

- Tuna longline vessels may only set at night and would have to use the specified tori line for each set;
- Swordfish vessels have to use a tori line for each set and must use weighted lines;
- Vessels are required to have the necessary bird dehooking device on board;
- Bait is to be thawed prior to being used, and;
- Deck lighting is to be kept to a minimum.

Compliance with the mitigation measures have increased in recent years due to the 25 and 50 bird cap imposed per vessel since 2008.

A summary of shark mitigation measures are as follows:

- South Africa terminated its directed pelagic shark longline fishery in 2011;
- Tuna and swordfish vessels are prohibited from using stainless steel hooks and wire leaders (foreign vessels);
- All fins and shark trunks must be landed together at the first point of landing to ensure no finning takes place;
- Thresher, hammerheads, oceanic whitetip, silky, Porbeagle and Dusky sharks are not permitted to be landed, and;
- Shark by-catch is not to exceed 50% of the targeted species for domestic vessels, but limited to 10% for foreign vessels;

Compliance to these measures is essentially 100%.

The following additional information should be noted:

- All discharges/ transshipments are monitored;
- Transshipping is only allowed in port subject to the issuing of a transshipment permit;
- All vessels must have a functional Vessel Monitoring System (“VMS”) on board; and
- Observer coverage is 100% for foreign vessels.

The Branch Fisheries Management under the Department of Agriculture Forestry and Fisheries is the lead agency in South Africa undertaking research on large pelagic species and is working closely with Birdlife South Africa and World Wildlife Fund (“WWF”) in terms of investigating mitigation measures.

8. Public Relations and Education Activities

The Department is working closely with WWF to encourage Fisheries Compliance Officers (“FCOs”) and fishermen to undertake responsible fishing courses. These courses started in 2008 and it is the Department’s vision that all FCOs should undergo the training.

9. Information on other ERS (non-bycatch) such as prey and predator species

Not applicable.

10. Others

Not applicable.

11. Implementation of the IPOA-Seabirds and IPOA-Sharks

South Africa launched its NPOA-seabirds in 2008. Thus far great progress has been made in reducing seabird mortality in its large pelagic longline fleet and in 2012 South Africa achieved a seabird mortality rate that was below 0.054 seabirds per thousand hooks. South Africa has also published the NPOA-Sharks in November 2013 (See attached). Even though the NPOA-Sharks is a newly published document, over the past years, South Africa has implemented appropriate measures to address shark by-catch concerns as can be seen in all permit conditions of fisheries sectors that interact with sharks.

Annex 1

Summary of papers submitted to ERSWG

Members should provide a summary of papers submitted to the ERSWG meeting in their national report

CCSBT 9 specified that Members should provide a summary of papers submitted to the ERSWG meeting in their national report (see paragraph 89 of the CCSBT 9 report).

Table 1: Reporting form for estimation of total mortality of ERS in CCSBT fisheries

Country _____ Year (calendar year) _____

Species (or group) _____

Fishery		Observed							Estimate
Stratum (CCSBT Statistical Areas or finer scale)	Total Effort ²	Total Observed Effort ²	Observer Coverage ³	Captures (number)	Capture Rate ⁴	Mortalities (number)	Mortality Rate ⁴	Live releases (number)	Estimated total mortalities (number)
TOTAL									

2 For longline provide number of hooks, for purse seine provide number of sets.
 3 For longline provide as a percentage of the number of hooks, for purse seine provide as a percentage of the number of shots.
 4 For longline provide as captures per thousand hooks, for purse seine provide as captures per set.