

NATIONAL REPORT OF SOUTH AFRICA

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1. General Fishery Statistics

South Africa has three commercial fishing sectors which either target or catch tuna and tuna-like species as by-catch in the Indian Ocean. These sectors are tuna longline, pole and line/ rod and reel, and shark longline. In addition, there is a boat-based sport fishery.

1.a Catch by Gear

Tuna Longline

Commercial longlining for tunas started in the early 1960s, but ceased beyond the mid-1960s in favour of other more lucrative developing fisheries. In 1997, 30 experimental longline permits were allocated in response to applications to re-develop a domestic longline fishery. Prior to 2000 longline fishing effort was mainly concentrated in the Atlantic Ocean. In 2001, ice and processing facilities were developed at Richard's Bay, which is situated on the east coast of South Africa. Subsequently, fishing effort and catch increased in the Indian Ocean (Fig. 1.) and this fishery is now the most important South African large pelagic fishery operating in the Indian Ocean in terms of tonnage landed.

An allocation process for the issuing of long-term longline fishing rights was held at the end of 2004. The policy for allocation of rights made provision for foreign flagged vessels to operate in the fishery. Consequently, many permit holders transferred their permits to foreign flagged vessels of Japan and Republic of Korea in an attempt to benchmark performance. The foreign flagged vessels mainly targeted bigeye and yellowfin and most fishing effort was concentrated in the Indian Ocean.

In 2004, 23 vessels reported catches, including vessels from Japan and Republic of Korea. Swordfish catch declined by almost 400 t from 611 t (dressed weight) in 2003 to 213 t in 2004, and was no longer the dominant species caught (Fig. 1.). In contrast, yellowfin catches continued to increase to 655 t (dressed weight) in 2004 (Fig. 1.) and became the most important species, contributing to 37% of the catch by weight. Southern bluefin and bigeye tuna catches also increased to 9 t (dressed weight) and 292 t in 2004 respectively. These changes in catches were largely due to an increase in the number of Asian flagged vessels fishing under South African permit. These vessels mainly targeted bigeye and yellowfin along the south coast of South Africa. The number of active swordfish-directed vessels, which are mainly South African flagged vessels, decreased due to unfavourable economic conditions. It was also noted that yellowfin was still abundant in South African waters as was the case in 2003.

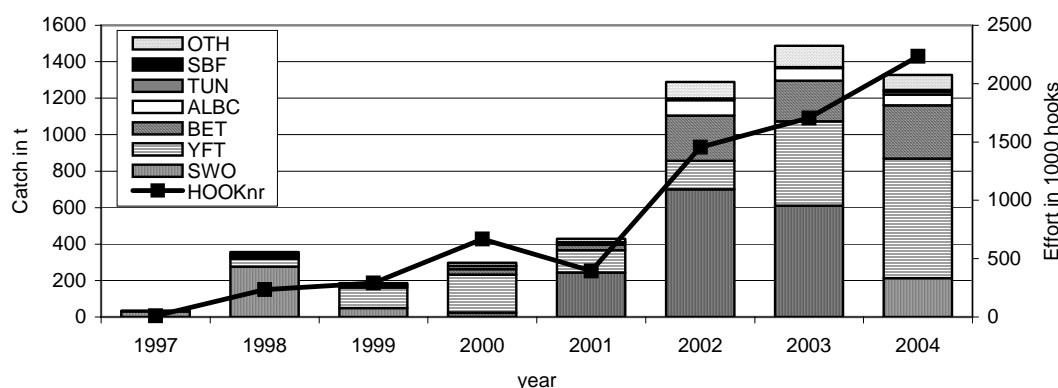


Fig. 1. Reported catch (dressed weight) and effort (hooks) in the South African tuna longline fishery.

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Pole and Line/ Rod and Reel

The use of pole and line has been employed commercially since the 1970s to target tuna. In 1979 commercial tuna fishing effort increased after a record run of yellowfin tuna off Cape Point. Subsequent to this, the South African tuna fishery has essentially been a surface pole and line fishery that targets mainly juvenile (3-4 year old) albacore in near-shore waters off the west coasts of South Africa and Namibia. Occasionally this fishing effort extends beyond 20°E and into the IOTC region, to target albacore. South Africa also has a commercial linefish fishery which opportunistically catches yellowfin, king mackerel and shark in the Indian Ocean using rod and reel. These catches usually only contribute to a small percentage of the total catch by the linefishery due to the multispecies nature of the fishery. Catches of pelagic species are also inversely correlated to abundance of other preferred target species such as kob, geelbek and slinger. This implies that when the preferred species is not available the fleet will opportunistically shift targeting to pelagic species, including yellowfin, king mackerel and sharks.

Total reported catch of species relevant to IOTC increased from 139 t in 2003 to 209 t in 2004. This was largely due to an increase in reported shark catch from 116 t in 2003 to 189 t in 2004. Unclassified shark is thought to mainly comprise dusky, copper and hound sharks. Reported catches of yellowfin and king mackerel in 2004 declined to 2 t for both species.

Shark longline

The shark longline sector consists of a demersal shark longline component, which predominantly targets soupfin and hound sharks, and a pelagic longline component, which predominantly targets shortfin mako. The latter also catches blue shark, tuna and swordfish as bycatch.

Prior to 2003 pelagic shark longlining fishing effort and catch have been declining (Fig. 2). However, improved market prices for pelagic shark since 2003 and good catch rates provided fishers incentives to fish for mako sharks. Fishing grounds expanded into the Indian Ocean in 2003, with over 140 t (dressed weight) of shortfin mako landed. In 2004 the east Agulhas Bank, situated in the Indian Ocean, became the main fishing ground. The number of active vessels increased in 2004 from 5 to 8 and resulted in a fourfold increase in mako landings, reported at 535 t. Shark CPUE remained high at approximately 1 kg.hook⁻¹. Other significant catches were blue shark (40 t), yellowfin (2 t) and swordfish (0.5 t). By-catches of tuna and billfish have decreased as fishers are using steel tracers and fishing is mainly conducted on the shelf.

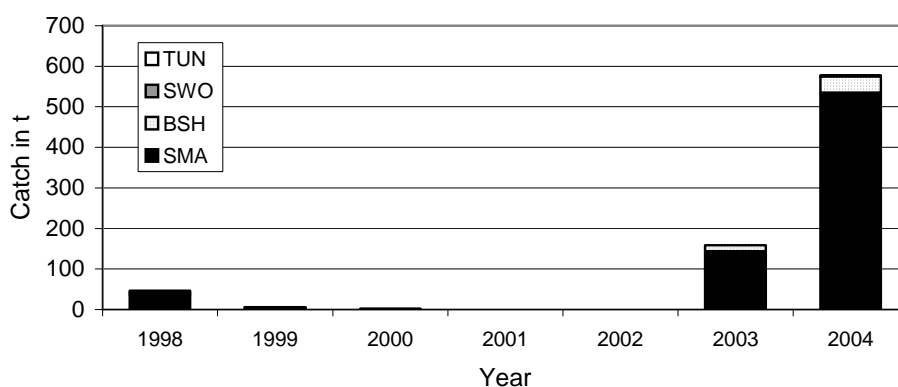


Fig. 2. Reported pelagic shark longline catches (dressed weight) in the Indian Ocean (1998-2004).

Sport fishery

The sport fishery uses rod and reel from ski-boats (5-8 m) to target numerous game fish, including yellowfin and king mackerel. Although catch and effort are unknown in the sport fishery it is estimated that over 100 t of

yellowfin and 100 t of king mackerel are landed annually. All sport fishers are required to purchase a permit and are restricted to a bag-limit of 10 tuna per day, with the sale of catch prohibited.

1.b Fleet Structure

Table 1. Structure of fleets catching tuna and tuna-like species in the Indian Ocean in 2004.

Fishing Sector	Fleet Structure			
	No Active Permits	Min Vessel Size (in m)	Max Vessel Size (in m)	Avg Vessel Size in (m)
Tuna Longline	23	19	62	~30
Pole & Line	163*	7	35	~17
Rod & Reel (commercial)	269*	6	10	~7
Rod & Reel (sport)	unknown	4	8	~6
Pelagic Shark Longline	8	13	20	~17

* - denotes registered not active vessels

1.c Available Information on NTAD species

In 2004, the tuna longline fleet reported 81.9 t of bycatch, of which sharks comprised 50.2 t, billfish (excluding swordfish) 10.4 t and other 21.3 t. Of the shark bycatch reported, blue sharks accounted for approximately 60% and shortfin mako 25% of sharks caught by weight. Other species landed, in order of importance, include oceanic whitetip, silky, thresher and hammerhead. Blue and black marlins accounted for more than 80% of the marlin bycatch. Oilfish and escolar probably constituted over 70% of the "other" by-catch, with dorado accounting for 10%. There are a large number of ray and shark species (including crocodile sharks) that are also caught but not reported as they are discarded at sea. Also reported catches seldom include incidental catches of seabirds and turtles. The magnitude of these catches can only be obtained from observer data reports, which were unavailable for analysis at the time of this report.

2. Observance of IOTC Management and Control Measures

South Africa is a long standing Member of ICCAT. Consequently, South Africa has already implemented ICCAT management and control measures for her fleets, including measures to combat IUU fishing, mandatory VMS, onboard scientific observer coverage for longline vessels, full port inspection scheme, minimum size limits and a daily logbook system for commercial fisheries. South Africa also provides fishery statistics according to IOTC specifications on an annual basis.

3. National Research Programs

Large pelagic research in South Africa has largely been focussed on swordfish as it is the most important species caught by the tuna longline fleet and there is concern about localized depletion. Over 2 000 biological samples have been processed since 1998 with the aim to elucidating the life history of swordfish occurring in southern African waters. These biological samples include anal fins for ageing, gonads for sexing and determining maturity, and stomachs for dietary analysis. In addition, more than 1 000 swordfish tissue samples have been collected for genetic analysis in order to understand swordfish stock delineation in South African waters. The on board observer programme, which has been operational since 1998, is also used to collect length frequencies of billfish, tuna and sharks caught by the longline fleet. This year bigeye tissue samples have also been collected for genetic analysis in collaboration with IRD. MCM together with WWF and Birdlife SA are currently conducting a study to quantify the levels of shark, turtle and seabird by-catch on longline vessels and to investigate various mitigation measures.

4. Other Relevant Information

South Africa initiated a pilot tagging project in the Indian Ocean in 2004, using one commercial longliner as a platform to primarily tag small tuna and billfish during commercial operations. Thus far over 250 fish have been tagged with one swordfish recaptured. Thus proving that it is feasible to conduct tagging from commercial longliners. South Africa once again urges IOTC to financially support this tagging programme so that more vessels can be included in the tagging operation.