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Commission des Thons de l'Océan Indien



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South Africa national report

1. General Fishery Statistics

South Africa has three fishing sectors which either target or catch tuna and tuna-like species as bycatch in the Indian Ocean. These sectors are, in order of importance, tuna longline, pole and line/ rod and reel, and shark longline.

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 (Fig 1.a). 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 continued to increase in the Indian Ocean (Fig 1.b and Fig. 2). In 2003, the longline fishery was still in an experimental phase with 24 vessels actively fishing in 2003.

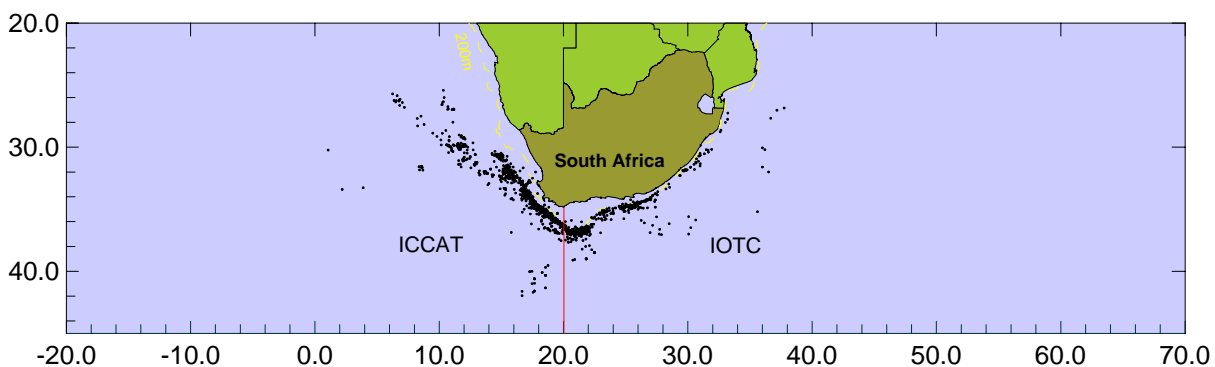


Fig. 1a Reported tuna longline set positions from 1998 – 2000.

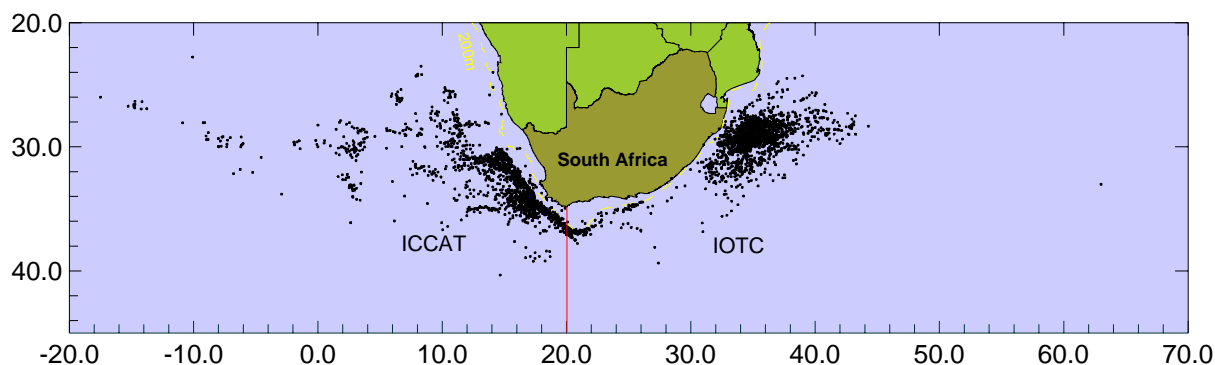


Fig. 1b Reported tuna longline set positions from 2001-2003.

The most important species landed are swordfish, bigeye tuna, yellowfin tuna and albacore (Fig. 2). Catches have largely been dominated by swordfish (> 50% by weight), except in 1999 and 2000 when South African authorities imposed more stringent measures on swordfish catches. The contribution of bigeye tuna to annual catches have been steadily increasing since the inception of the fishery, whereas yellowfin catches fluctuates widely (13-67%) and albacore catches are generally low (< 10%). In 2003, the longliners recorded its highest landings of yellowfin tuna. The high abundance of yellowfin in South African waters was also reflected by unusual catches made by sardine purse seiners and recreational fishers fishing closing to shore. This anomaly was noticed towards the latter half of 2003 and persists today. The average size of yellowfin landed is large, approximately 40 – 60 kg dressed weight. The total landings (dressed weight) of these species in 2003 were as follows; swordfish (556.8 MT), bigeye tuna (206.3 MT), yellowfin tuna (431.8 MT) and albacore (63.9 MT). The proportion of bycatch species has increased since 2002 due to more reliable reporting of these species.

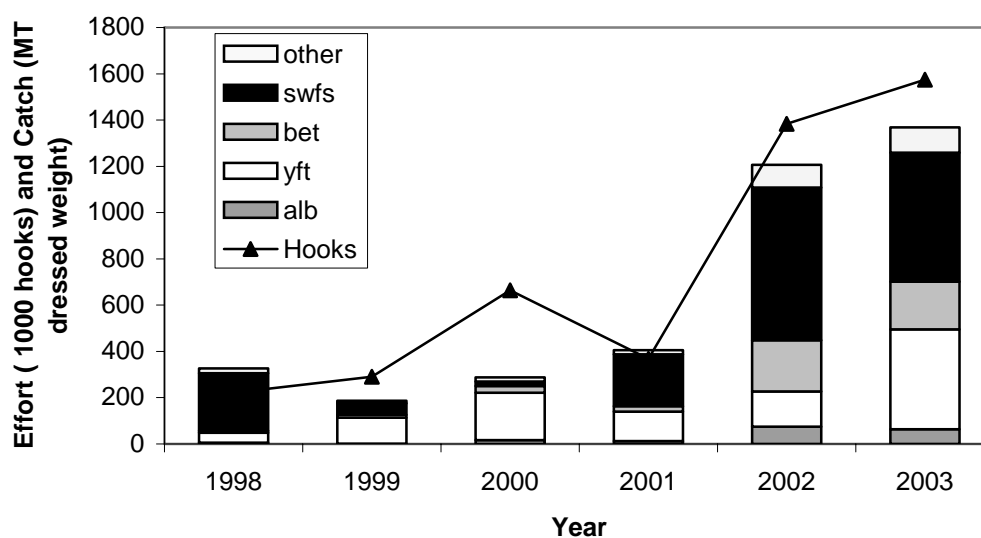


Fig. 2 Reported tuna longline fishing effort and catch in the Indian Ocean from 1998 – 2003.

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 in the region. 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. Further along the east coast of South Africa, significant quantities of king mackerel, queen mackerel and juvenile yellowfin tuna are caught by commercial skiboats using rod and reel.

Annual catches of albacore and queen mackerel in the Indian Ocean have been consistently low (< 10 MT), whereas annual catches king mackerel have fluctuated widely from 7 – 48 MT. From 1998 –2002 a decreasing trend in total annual catch is noted (Fig. 3). However, in 2003 catches exceeded that reported in 1998, mainly due to the large number of sharks (predominantly dusky) and yellowfin tuna landed (Fig. 3). The increased shark landings are due to better market prices,

whereas yellowfin tuna have been unusually abundant. In 2003 the combined reported catches of these two fleets in the Indian Ocean were king mackerel (9.3 MT), yellowfin tuna (139.4 MT), queen mackerel (0.3 MT) and albacore (0.2 MT), tuna (1.9 MT), sharks (120.6 MT) and billfishes (0.4 MT).

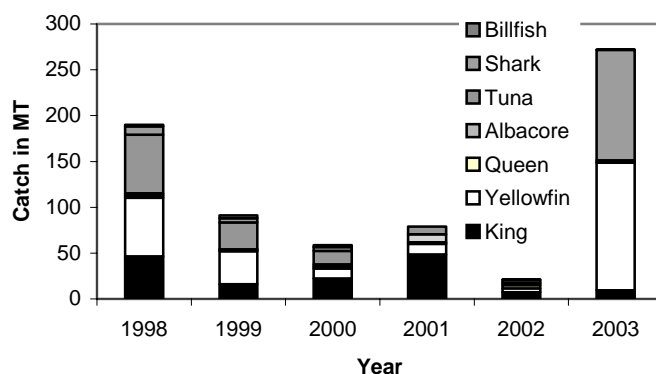


Fig. 3 Reported pole and line/rod and reel catches in the Indian Ocean from 1998 – 2003

Shark longline

The shark longline sector is divided into a demersal shark longline fleet, which predominantly targets soupfin and hound sharks, and a pelagic longline sector, which predominantly targets shortfin mako. The latter also catches tuna and swordfish as bycatch.

Pelagic shark longlining fishing effort has been continually declining as these vessels are being used in more lucrative fisheries. Consequently, no shark catches were reported for 2001 and 2002 (Fig. 4). However, shark catches increased dramatically in 2003 as a result of better market prices. The most important species by dressed weight was shortfin mako (144.2 MT), followed by blue sharks (14.8 MT). By-catches of tuna and billfish have decreased as fishers are using steel tracers.

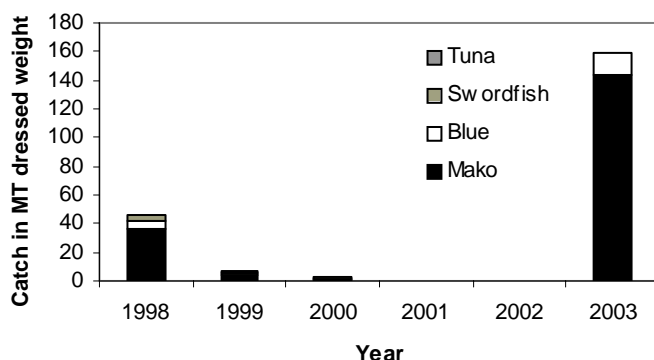


Fig. 4 Reported shark longline catches in the Indian Ocean from 1998 - 2003

1.b Fleet Structure

Table 1. Structure of fleets catching tuna and tuna-like species in the Indian Ocean in 2003.

Fishing Sector	Fleet Structure			
	No Active Permits	Min Vessel Size (in m)	Max Vessel Size (in m)	Avg Vessel Size in (m)
Tuna Longline	24	19	62	31.5
Pole & Line	163	7	35	17.2
Rod & Reel	269			6-10
Pelagic Shark Longline	5	13	20	16.6

1.c Available Information on NTAD species

In 2003, the tuna longline fleet reported 104.3 MT of bycatch, of which sharks comprised 77.5 MT, Billfish (excluding swordfish) 10.3 MT and other 16.4 MT. Of the shark bycatch, blue sharks accounted for nearly 80% and shortfin

mako 18% 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 constituted 50% of the "other" by-catch, with dorado accounting for 33%. There are a number of ray and shark species 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. South Africa also provides fishery statistics according to IOTC specifications on an annual basis.

3. National Research Programs

Research in South Africa is mainly focussed on swordfish as it is the most important species caught by the tuna longline fleet and there is concern about localized depletion. More specifically biological samples have been collected since the inception of the experimental tuna longline fishery with the aim of elucidating the life history of swordfish occurring in southern African waters. Tissue samples will be collected in 2004 for genetic and heavy metal analysis in order to determine stock delineation of swordfish in this region. This research will be supported by a tagging programme, which was implemented in 2004.

4. Other Relevant Information

South Africa is in the process of becoming a Cooperating Contracting Party to IOTC. In the interim period South Africa is seeking Cooperating Non-contracting Party status. South Africa will be expanding her tuna/swordfish longline fleet at the end of 2004 when long-term (10 yr) commercial fishing rights are allocated. The targeting of pelagic sharks will be terminated by the end of 2005 due to global concerns of the stock status of oceanic sharks.