



## agriculture, forestry & fisheries

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### Annual Review of the South African SBT Fishery for the 18<sup>th</sup> Annual Meeting of the Commission September 2011

#### 1. Introduction

The South African longline fishery started in the early 1960s. Southern bluefin tuna was one of the most common species caught in South African waters with more than 1 500 t estimated to be landed from 1961-1967. The fishery failed to develop as fishing interests turned to other more lucrative fish stocks such as hake and rock lobster. Subsequently, tuna longline fishing in the 1970s to 2002, in South African waters was dominated by foreign vessels from Japan and Chinese-Taipei through the issuing of bi-lateral agreements. These agreements were terminated in 2002, with the intention that marine resources within South Africa's EEZ should only be exploited by South Africans. Renewed interest by South Africans to conduct longline fishing for tuna and swordfish was developed in 1997 with the establishment of an experimental longline fishery. The South African longline fishery was recently formalized into a commercial fishery in 2005 when 20 swordfish-directed rights and 30 tuna-directed rights were made available for allocation. The fishery is thereby limited to a maximum of 50 vessels.

Currently southern bluefin tuna is only caught in South Africa by means of swordfish and tuna longline vessels. The swordfish longline vessels are domestic vessels that mainly target swordfish, yellowfin and bigeye within South Africa's 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. using monofilament mainline. The tuna longline vessels target yellowfin and bigeye tuna. South Africa is currently in the process of developing this relatively 'new' sector of its fishery and notes that no suitable domestic vessels exists for this fishery. Furthermore, South

Africans are not suitably skilled to target tuna using longline. Consequently, there is a large reliance on chartering of foreign vessels to source suitable vessels for reflagging and for skills transfer to South Africans.

## 2. Operational Constraints on Effort

### Regulatory Measures

- The South African longline fishery is restricted to a maximum of 50 vessels.
- Within the longline fishery only tuna Right Holders are allowed to engage in chartering of foreign vessels.
- The fishery is currently restricted to a TAC of 40t. For the current 2011 season swordfish operators were allowed to catch 10 t of southern bluefin tuna under an Olympic system. The remaining 30 t was allocated as individual quotas to tuna operators. Once the South African TAC is reached then no further landing of southern bluefin is permitted.
- Observer coverage is 100% for all charter vessels and a target of 20% is required for the domestic vessels. This season the observer contract for the domestic vessels expired and the Department has embarked on a new tender process.
- All catches are landed in South Africa with 100% monitoring of landings.
- Catch logbooks are required to be completed on a daily basis.
- VMS reporting to the South African Department of Agriculture, Forestry and Fisheries is mandatory for all vessels.
- Southern bluefin less than 6 kg is not permitted to be landed.
- At seas transshipments are not permitted. Transshipments in port are allowed on the authority of a permit and must be monitored.
- All catch data pertaining to southern bluefin is required to be completed on a tagging form, with each bluefin marked with a unique tag as provided by the Department.
- The Catch Monitoring Form is required to accompany all consignments of southern bluefin.
- Export permits are required for the export of any marine product.

### 3. Catch and Effort

In 2010, 11 of 26 active vessels reported catches of southern bluefin. The total reported catch (live weight) was 34.3 t and was similar to that reported for 2009. The longline vessels are unable to target southern bluefin given the small country quota. Hence, the southern bluefin catches can best be described as a by-catch to targeting of swordfish, bigeye and yellowfin. Unlike previous years, the swordfish component of the fishery was responsible for almost the entire catch. The total effort deployed by the whole fleet in 2010 is the highest on record with over 5 million hooks deployed. The nominal CPUE for southern bluefin in 2010 for the entire effort deployed was 6.8 kg.1000 hooks<sup>-1</sup>, which represented a decrease of 17% compared to that of 2009 and a 40% decrease compared to 2008. The constant decrease in nominal CPUE over the last two years is a result of the tuna longline vessels not fishing on the traditional southern bluefin fishing grounds. No southern bluefin is permitted in the tuna pole fishery. Although the recreational fishery is in theory allowed to catch 10 southern bluefin per person per day, this in practice is not realized as the fishing grounds for southern bluefin is too far offshore to be targeted by the recreational fishery. The department is in the process of addressing tuna bag limit reductions for recreational fishers.

### 4. Historical Catch and Effort

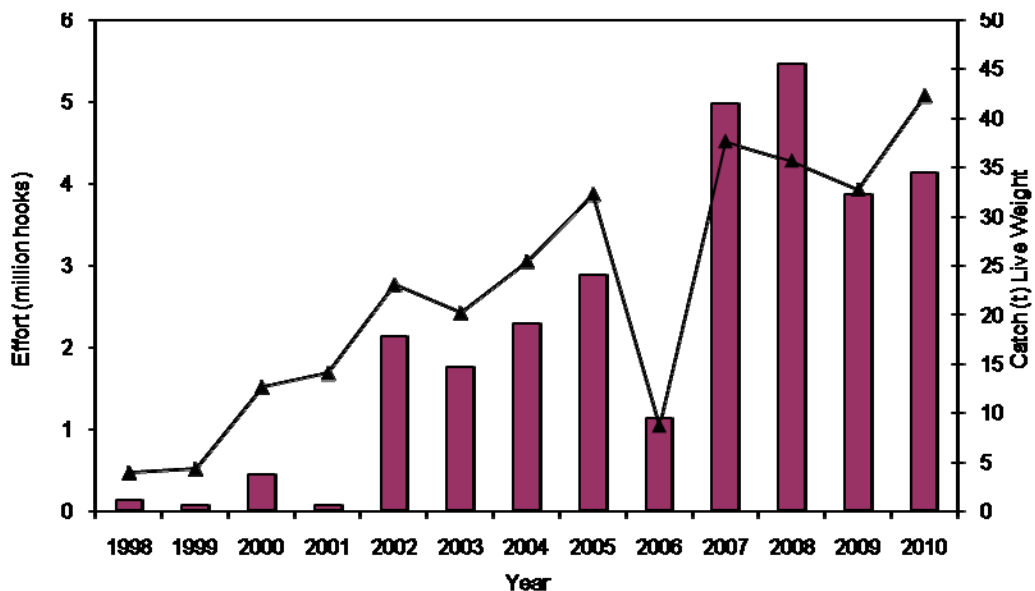


Fig. 1. South African southern bluefin catch (bar) and effort (line) data (1998-2010)

South African catch of southern bluefin has increased significantly from 1 t in 1998 to a peak of 45 t live weight in 2008 (Fig. 1). This increase is partly attributed to the ten fold increase in effort. Effort increased from 0.4 million hooks in 1998 to over 4 million hooks in 2008 (Fig. 1). However, Fig. 2 indicates that over this period there has also been an increase in nominal CPUE from 2.1 kg.1000 hooks<sup>-1</sup> to 10.6 kg.1000hooks<sup>-1</sup>. The Nominal increase in CPUE may be attributed to many factors such as skippers becoming more experienced, chartering of more suitable vessels, change of fishing areas, change in availability of southern bluefin, and change in the targeting strategies of the fleet. The latter two years indicate a decrease in nominal CPUE and is mainly attributed to the tuna longline sector not fishing on the southern bluefin fishing ground.

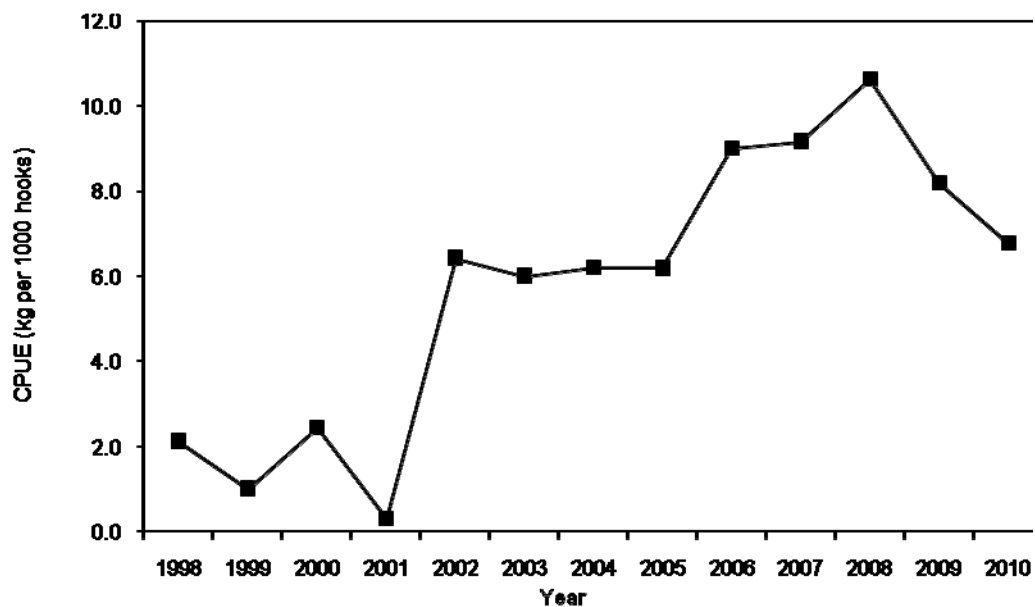


Fig. 2. Nominal South African SBT CPUE (1998-2010)

#### 5. Annual Fleet Size and Distribution

The number of active vessels decreased from 31 in 2009 to 26 in 2010. The vessels mainly focused fishing activities within the South African EEZ, particularly along the south and east coast of South Africa.

#### 6. Historical Fleet Size and Distribution

From 1998 to 2001 most of the longline fishing activity was conducted along the west coast of South Africa. Since, the development of processing facilities at Richard's Bay the fishing effort of local vessels gradually shifted to the east coast of South Africa where higher catch rates of swordfish and yellowfin are obtained. The addition of charter vessels resulted in many of the tuna vessels fishing along the south coast of South Africa since 2005. On average, more than 90% of the fishing effort is conducted with South Africa's EEZ. Over the last 5 years the average number of active longline vessels have been 25. Although the number of active vessels may be as high as 50 vessels in theory, many right holders have not activated their rights because of the challenges in sourcing of suitable vessels, unpredictable catch rates, and high fuel and freight costs.

#### 7. Fisheries Monitoring

Observer coverage is aimed at 100% of all foreign vessel fishing trips and 20% of domestic vessel fishing trips. In 2010, 100% coverage was obtained for foreign fishing vessels and 14% for domestic vessels. Observer duties include monitoring compliance with permit conditions, recording catch composition, obtaining size frequencies, and obtaining biological sampling etc.

#### 8. Other Factors

##### Import/Export Statistics

Almost all of South Africa's southern bluefin catches are exported. South Africa does not have a market for bluefin and hence none is reported to be imported.

##### Markets

Southern bluefin is mainly exported to Japan and USA.