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UK national report

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ABSTRACT

The UK National Report summarises fishing by vessels licensed to fish for tuna and tuna like species in the British Indian Ocean Territory (Chagos Archipelago) Fisheries Conservation and Management Zone (FCMZ) during the 2005 / 2006[1] fishing season. Two UK flagged vessels were also registered with IOTC to fish during 2005, but they did not fish in the BIOT FCMZ, and are reported to IOTC by the UK Department for Environment Food and Rural Affairs (DEFRA) to the European Commission (EC) In 2005/06 27 licences were issued to 24 longline vessels of two size classes (±100 GRT). The estimated total catch was 916 mt comprising 34% yellowfin tuna, 48% bigeye tuna, and 28% other species. 56 licences were issued to 54 Purse seine vessels that year. The total catch for the 2005/06 season by purse seiners was 13,865 tonnes. The reported species composition (before correction) was dominated by yellowfin tuna (77.93%) followed by skipjack tuna (20.95%), and bigeye tuna (1.08%), based on catch reports and logbooks where catch composition available. It is estimated that a further 15 mt of tuna were landed by recreational fishers on Diego Garcia. Two observers were deployed on purse seine vessels during 2005/06. New stock assessment models were applied to the assessment of bigeye tuna for the WPTT in July. BIOT fisheries legislation was amended (SI No. 1 2006 shark regulations) in respect of IOTC resolution 05/05 concerning the conservation of sharks.

1. Introduction

This report summarises fishery statistics relating to vessels licensed to fish for tuna and tuna like species in the British Indian Ocean Territory (Chagos Archipelago) Fisheries Conservation and Management Zone (FCMZ) during the 2005 / 2006 fishing season.

During the calendar year 2005 there were also 2 authorised UK flagged vessels[2] registered with IOTC which caught 769 tonnes of fish (2.8% tuna, 78.6% swordfish, 21.2% shark, 0.5% sailfish and 3% others). The activities of these vessels are reported through the UK Department for Environment Food and Rural Affairs

1 For the purposes of this report, the fishing season for the BIOT FCMZ (Chagos Archipelago) is defined as running from the 1st of April through to the 31st of March the following year. This season definition is used because the main historical peaks in the purse seine and longline seasons in the BIOT FCMZ (Chagos Archipelago) occur during the months of December and January.

2 By October 2006 five UK vessels were registered on the IOTC list of authorized vessels

(DEFRA) to the European Commission (EC), and so are included in the report of the EC. None of these vessels fished in the BIOT FCMZ in 2005/06.

2. Fishery Statistics

Three tuna fisheries operated in the British Indian Ocean Territory (Chagos Archipelago) Fisheries Conservation and Management Zone (FCMZ) during the 2005 / 2006 fishing season: a longline fishery, a purse seine fishery and a recreational fishery.

2.1 Longline Fishery

In 2005/06 27 licences were issued to 24 longline vessels of two size classes (±100 GRT). The estimated total catch was 916 mt (Table 1) comprising 34% yellowfin tuna, 48% bigeye tuna, and 28% other species (Table 2)

Table 1. BIOT FCMZ longline summary

Year	2005/2006
Number of Vessels	24
Number of Licences	27
Number of Days Fished	1207
Total Catch (t)	916
CPUE (t/day)	0.759
CPUE (t/1000 hooks) [3]	0.281

Table 2. BIOT FCMZ longline summary 2005 / 2006 by vessel class

Vessel Size Class	Days	Total Catch (t)	CPUE (t/day)	Catch YFT (t)	Catch BET (t)	Catch Other (t)
Longliners >100 GRT	831	754.603	0.908066	230.648	410.680	113.275
Longliners <100 GRT	376	161.95	0.430718	80.762	33.087	48.101

In the 2006/07 season (from April to September) a total of 18 longline vessels have fished for a total of 593 days with a catch of 164 tonnes. This is lower than in previous years, partly attributable to a shift to smaller longliners with lower catch rates.

2.2 Purse Seine Fishery

The total catch for the 2005/06 season by purse seiners was 13,865 tonnes (Table 3). The reported species composition (before correction) was dominated by yellowfin tuna (77.93%) followed by skipjack tuna (20.95%), and bigeye tuna (1.08%), based on catch reports and logbooks where catch composition available. The catch composition has a very similar profile to previous years such as 2004 / 2005 where a

3 Based on an average rate of 2700 hooks set per day

purse seine fishery has developed in the BIOT FCMZ during December / January and where >75% of the total catch are large yellowfin tuna.

Table 3. BIOT FCMZ Purse Seine summary 2005 / 2006

Year	2005 / 2006
Number of Vessels	54
Number of Licences	56
Number of days fished	394
Total Catch (MT)	13865

To date no fishing has been reported during the 2006 / 2007 season.

2.3. Recreational Fishery Catches

A small recreational fishery occurs under licence at Diego Garcia. Some tuna and tuna like species are caught. For the last year when complete records were available (2002), the catch of tunas was 15.6 mt (14.8 mt yellowfin tuna; 0.5 mt skipjack tuna; 0.2 mt dogtooth tuna and <0.1 other tunas and tuna-like species), and it is estimated to be similar in 2005. Data available for the period December 2005 to April 2006 is indicated in Table 4.

Table 4 Tuna catches (kg) to the Diego Garcia recreational fishery, December 2005- April 2006.

Species	Dec	Jan	Feb	Mar	Apr	Total
Yellowfin tuna	417	1402	2829	380	1114	**6141**
Dogtooth tuna	80	0	0	0	36	**116**
Skipjack tuna	19	57	37	2	27	**142**

2.4. Information on non target species

Information on bycatch species and discards, not available from logbook data, is collected during the BIOT Observer Programme. During 2005/06 10 observer days were spent on board purse seine vessels. No observations were made on board longline vessels though it is noted that 28% of the catch from longliners was recorded as 'Other species'.

With respect to target species, all yellowfin tuna caught were from sets made on free shoals. Skipjack tuna was caught from sets made on both free shoals (12%) and on FADs (41%).

No by-catch was recorded in sets made on free shoaling yellowfin and skipjack tuna species. In contrast sets made employing natural FADs contained a variable amount of by-catch species. By-catch species were routinely removed from the conveyor by the crew and discarded during the sampling period. Only minimal quantitative sampling was undertaken on by-catch, of which dorado and silky sharks were the most common (Table 5).

The BIOT Authorities have begun cataloguing information on by-catch as requested by the Working Party on Bycatch, and this will be available shortly.

Table 5: Summary of species observed on purse seiners in 2005/06

FAO Code	Common Name	Scientific Name
YFT	Yellowfin tuna	*Thunnus albacares*
SKJ	Skipjack	*Katsuwonus pelamis*
SXU	Dorado	*Coryphaena hippurus*
FAL	Silky shark	*Carcharhinus falciformis*
RRU	Rainbow runner	*Elegatis bipinnulata*
WAH	Wahoo	*Acanthoybrium solandri*
MLS	Striped marlin	*Tetrapturus audax*

2.5. Changes to national data collection and processing systems

No changes to national data collection and processing systems were made during 2005/06. At the present time the BIOT authorities are exploring the feasibility of moving over the next 12 months towards electronic reporting systems for both daily entry, exit and catch reports, and logbook reports. The former will use a similar format to that used in the North Atlantic.

3. Implementation of recommendations of the Scientific Committee

Recommendations of the eighth Scientific Committee and its various working parties implemented by the BIOT Authorities are listed below. As the BIOT Administration does not maintain a flag register itself, many of the recommendations do not apply directly to BIOT. Those recommendations that apply to UK flagged vessels are reported to the Commission by DEFRA through the EU.

<u>8th SSC</u>

Paras 21 and 23 on shark by-catch including information from non tuna fisheries and that recorded by observers. Data is currently being compiled for reporting to the Working Party on Bycatch.

Paras 48, 51, 53 and 54 concerning the activities of the 2006 WPTT and assessment of bigeye tuna. BIOT sent a representative to the WPTT and with colleagues from AZTI Fundazioa produced two new stock assessments for bigeye using a Bayesian Pella-Tomlinson model and the CASAL model.

<u>WPTT 2004</u>

On reporting summary statistics to IOTC – Systems already in place.

On stock assessment using simulation models; on the use of tagging data to improve the reliability of stock assessments; On standardisation of CPUE for BET – See above, stock assessments were performed for BET using complete data sets.

<u>WP on Bycatch 2005</u>

On submission of data on bycatch – Data are currently being prepared for submission to the WP, including information from historical logbook and observer data.

4. National Research Programmes

Research has been conducted into the stock assessment of bigeye tuna and through collection of information during observer programmes.

New approaches to the assessment of bigeye tuna were undertaken which, unlike some previous models incorporate all available data including the newly available tagging data. Details were reported at the Working Party on Tropical Tunas in July 2006. The models used were a Bayesian Pella-Tomlinson model and the CASAL model, which is well documented enabling cross validation of the results and greater transparency. These models are commensurate with similar assessment models employed by other international fisheries commissions.

Work conducted under the observer programme was divided into two principle categories:

1. Observations on the practical aspects of tuna fishing (search, effort and catch information, as well as environmental conditions); and

2. Biological sampling, data collection and analysis of the target tuna, by-catch, and discarded species.

5. Any other relevant information

The BIOT fisheries legislation was amended (SI No. 1 2006 shark regulations) in respect of IOTC resolution 05/05 concerning the conservation of sharks. Removal of fins from sharks caught inside the BIOT FCMZ (Chagos Archipelago) is now prohibited, and the quantities of fins on board taken outside the BIOT FCMZ must be declared on entry, and they must be bagged and labelled. Recent feedback from inspections on licensed longline vessels at sea by the Senior Fisheries Protection Officer currently undertaking patrols in the BIOT FCMZ (28 October) indicates that compliance has been good to date.