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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 2006 / 2007¹ fishing season. Five 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). In 2006/07 34 licences were issued to 26 longline vessels of two size classes (± 100 GRT). The estimated total catch was 590 mt comprising 45% yellowfin tuna, 41% bigeye tuna, and 11% other species. 56 licences were issued to 55 Purse seine vessels that year. The total catch for the 2006/07 season by purse seiners was 95 tonnes. The reported species composition (before correction) was dominated by skipjack tuna (98%), and bigeye tuna (2%), based on catch reports and logbooks where catch composition available. It is estimated that a further 21 mt of tuna and tuna like species were landed by recreational fishers on Diego Garcia. The five UK vessels caught 1860.7 tonnes from the IOTC area of which swordfish (54%) and sharks (32%) were the predominant species. There was no BIOT or UK observer programme during 2006/07. New stock assessment models were applied to the assessment of yellowfin tuna for the WPTT in July. Data on by catch, conversion factors for sharks and degradation were made available to the Commission through its various activities.

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 2006 / 2007 fishing season, and compares them to data for the four previous years.

During the calendar year 2006 there were also 5 authorised UK flagged vessels registered with IOTC which caught 1860.7 tonnes of fish. The activities of these vessels are reported through the UK Department for Environment Food and Rural Affairs (DEFRA), and have also been included in this report (see 2.4). None of these vessels fished in the BIOT FCMZ in 2006/07.

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. Fishery Statistics

Three tuna fisheries operated in the British Indian Ocean Territory (Chagos Archipelago) Fisheries Conservation and Management Zone (FCMZ) during the 2006 / 2007 fishing season: a longline fishery, a purse seine fishery and a recreational fishery.

2.1 BIOT Longline Fishery

In 2006/07 34 licences were issued to 26 longline vessels of two size classes (± 100 GRT). The estimated total catch was 590 mt (Table 1) comprising 45% yellowfin tuna, 41% bigeye tuna, and 11% other species (Table 2). Species composition varies by vessel class (Table 3)

Table 1. BIOT FCMZ longline summary

| Year | 2002/03 | 2003/4 | 2004/05 | 2005/2006 | 2006/07 |
|----------------------------------|---------|--------|---------|-----------|---------|
| Number of Vessels | 37 | 38 | 33 | 24 | 26 |
| Number of Licences | 51 | 54 | 48 | 27 | 34 |
| Number of Days Fished | 1379 | 1060 | 664 | 1207 | 1147 |
| Total Catch (t) | 1467 | 1162 | 730 | 916 | 590.04 |
| CPUE (t/day) | 1.064 | 1.096 | 1.099 | 0.759 | 0.515 |
| CPUE (t/1000 hooks) ² | 0.399 | 0.406 | 0.407 | 0.281 | 0.196 |

Table 2. BIOT FCMZ longline summary species composition 2002 / 2003 to 2006 / 2007 for all vessels fishing within the zone.

| Year | 2002/03 | 2003/4 | 2004/05 | 2005/2006 | 2006/07 |
|------------------|---------|--------|---------|-----------|---------|
| Yellowfin tuna | 58% | 45% | 48% | 34% | 45% |
| Big-eye tuna | 31% | 42% | 52% | 48% | 41% |
| Other species | 11% | 13% | -- | 28% | 11% |
| Total Catch (MT) | 1467 | 1162 | 730 | 916 | 590 |

Table 3. BIOT FCMZ longline summary 2006 / 2007 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 | 734 | 494.71 | 0.674 | 222.0 | 221.3 | 51.4 |
| Longliners <100 GRT | 405 | 63.43 | 0.157 | 29.9 | 9.41 | 24.2 |

In the 2007/08 season (from April to the end of September) a total of 24 longline vessels have fished for a total of 330 days with a catch of 302 tonnes. This is similar to previous years (excluding the 2006 / 2007 season) and is partly due to the increase in the proportion of larger longliners compared to those under 200 GRT.

² Based on an average rate of 2700 hooks set per day

2.2 BIOT Purse Seine Fishery

The total catch for the 2006/07 season by purse seiners was 95 tonnes (Table 4). The reported species composition (before correction) was dominated by skipjack tuna (98%), and bigeye tuna (2%), based on catch reports and logbooks where catch composition available (Table 5). Skipjack were also dominant in 2002/03 and like 2006/07 this reflects a lack of free schooling large yellowfin in the BIOTFCMZ in those years, and the use of FADs to catch available schools.

Table 4. BIOT FCMZ Purse Seine summary 2005 / 2006

| Year | 2002/03 | 2003/4 | 2004/05 | 2005/2006 | 2006/07 |
|-----------------------|---------|--------|---------|-----------|---------|
| Number of Vessels | 52 | 52 | 52 | 54 | 55 |
| Number of Licences | 54 | 53 | 56 | 56 | 56 |
| Number of days fished | 62 | 104 | 991 | 394 | 27 |
| Total Catch (MT) | 722 | 1320 | 23535 | 13865 | 95 |

Table 5. BIOT FCMZ Purse Seine summary species composition 2002 / 2003 to 2006 / 2007

| Year | 2002/03 | 2003/4 | 2004/05 | 2005/2006 | 2006/07 |
|------------------|---------|--------|---------|-----------|---------|
| Yellowfin tuna | 18.01% | 71.74% | 83.80% | 77.93% | |
| Skipjack tuna | 67.87% | 14.24% | 14.50% | 20.95% | 97.89% |
| Big-eye tuna | 13.43% | 1.97% | 1.70% | 1.08% | 2.11% |
| Albacore | 0.69% | 11.89% | | | |
| Total Catch (MT) | 722 | 1320 | 23535 | 13865 | 95 |

2.3 BIOT 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). New catch and effort data collected since September 2006 are available and assuming a similar species composition by vessel type as 2002, the catch of tuna and tuna like species may be estimated (Table 4). The estimated annual catch for 2006 would be of the order of 21 tonnes of which approximately half were tunas.

Table 4 Tuna and tuna like species catches (kg) to the Diego Garcia recreational fishery, September 2006- March 2007. The estimated 2006 catch is the sum of catches for the 4 months for which data is available plus 8 times the average monthly catch of all data (Sept 06- Mar 07)

| Month | Estimated catch of tuna and tuna like species (Kg) | | | | | | | | | | | TOTAL (kg) | | |
|---------|--|-------------|----------|----------------|----------|--------|---------------|---------------|----------------|------------|---------|------------|---------------|-----|
| | Blue Marlin | Dolphinfish | Kawakawa | Rainbow runner | Sailfish | Wahoo | Dogtooth tuna | Skipjack tuna | Yellowfin tuna | Other tuna | Hei | Tunas | Tuna like spp | All |
| Sep-06 | 18.9 | 11.2 | 148.3 | 31.1 | 4.3 | 893.4 | 15.4 | 34.9 | 1064.3 | 7.1 | 1121.7 | 1107.2 | 2228.9 | |
| Oct-06 | 15.0 | 9.3 | 133.3 | 24.8 | 3.4 | 752.3 | 12.2 | 28.0 | 844.1 | 15.8 | 900.1 | 938.1 | 1838.3 | |
| Nov-06 | 10.4 | 7.7 | 109.6 | 17.5 | 2.4 | 516.2 | 8.5 | 20.3 | 584.3 | 11.0 | 624.1 | 663.8 | 1287.9 | |
| Dec-06 | 13.0 | 9.7 | 135.9 | 22.0 | 3.0 | 633.7 | 10.6 | 25.6 | 733.0 | 10.8 | 780.0 | 817.4 | 1597.4 | |
| Jan-07 | 13.4 | 8.6 | 125.2 | 22.2 | 3.0 | 683.4 | 10.9 | 25.2 | 751.9 | 17.3 | 805.2 | 855.8 | 1661.0 | |
| Feb-07 | 15.4 | 9.4 | 135.1 | 25.4 | 3.5 | 778.3 | 12.5 | 28.6 | 865.2 | 17.6 | 923.9 | 967.1 | 1891.0 | |
| Mar-07 | 14.8 | 8.9 | 126.3 | 24.4 | 3.4 | 736.1 | 12.0 | 27.4 | 832.5 | 14.0 | 886.0 | 913.9 | 1799.9 | |
| Total | 82.0 | 53.6 | 765.5 | 136.3 | 18.6 | 4100.1 | 66.7 | 155.1 | 4610.9 | 86.5 | 4919.3 | 5156.1 | 10075.3 | |
| Average | 14.4 | 9.3 | 131.3 | 23.8 | 3.3 | 709.6 | 11.7 | 27.1 | 807.1 | 13.3 | 859.2 | 891.6 | 1750.7 | |
| 2006 Kg | 172.2 | 112.3 | 1577.1 | 286.1 | 39.0 | 8472.1 | 140.0 | 325.6 | 9682.8 | 150.8 | 10299.3 | 10658.9 | 20958.1 | |

2.4. General Fishery Statistics – UK vessels.

During the 2006 calendar year 5 UK flagged vessels were registered on the IOTC list of authorised vessels. Two of these made no landings in 2006. Catches for the 3 vessels who did make landings in 2006 are summarised in the table below.

| Group | Total Tons | % of Total Catch |
|--------------|---------------|------------------|
| Tunas | 124.5 | 6.7% |
| Sharks | 594.5 | 32.0% |
| Swordfish | 1005.7 | 54.0% |
| Sailfish | 39.7 | 2.1% |
| Other | 96.3 | 5.2% |
| Total | 1860.7 | 100.0% |

All 5 vessels are long liners. Two of the vessels spent the first half the year fishing off the south coast of Indonesia between the tropic of Capricorn and the ninety east ridge, landing into Jakarta. In the second half of the year these vessels fished just north of tropic of Capricorn between Australia and Mauritius, landing into the latter. The third vessel fished year round just to the south of the Mozambique channel and landed into Durban.

2.5. Information on non target species - BIOT

Information on bycatch species and discards, not available from logbook data, was in previous years collected during the BIOT Observer Programme, but this did not occur during 2006/07. However, observer data from previous years were provided to the Working Party on Ecosystems and Bycatch to include in their analyses this year.

2.6. Changes to national data collection and processing systems

There were no substantive changes to the BIOT data collection and processing systems in 2006/07. The BIOT purse seine logbook was updated in light of the recommendation of the 2006 Scientific Committee and IOTC resolution 07/03 for minimum data requirements for logbooks relating to the purse seine fishery. In light of resolution 07/4 vessel notification details have been updated to include IMO number and main target species through the notification and licensing systems. .

The BIOT Administration is also looking into the potential for using electronic logbooks and reporting systems . These will collect the same information as the

paper logbooks but in a simple electronic format (Microsoft Excel or comma separated text files) that can be easily transmitted, verified and analysed.

3. Implementation of recommendations of the Scientific Committee

3.1. BIOT

The BIOT Authorities participate actively in the Scientific Committee and the Working Party on Tropical Tunas and contributed to the stock assessments for yellowfin tuna³. Complete data submissions were provided to IOTC as required. By-catch data were submitted to IOTC for inclusion in the deliberations of the WPEB, including information from historical logbook and observer data. Data on conversion factors for sharks were also provided. A paper was submitted to the 'Workshop on the degradation in the tuna long-line fisheries in the Indian Ocean'. No observer programme was conducted by the BIOT Authorities during 2006/07, and so no new size frequency data or other scientific observations are available this year. The BIOT purse seine logbook was updated in light of the recommendation for minimum data requirements for logbooks relating to the purse seine fishery.

Note that, as the BIOT Administration does not maintain a flag register itself, many of the recommendations do not apply directly to BIOT.

3.2. UK

Those recommendations that apply to UK flagged vessels are reported to the Commission by DEFRA.

IOTC resolution 05/05 concerning the conservation of sharks and the removal of fins is implemented through (EC) Regulation 1185/2003. The UK implements this is through national legislation, licence conditions and by a restricted shark fin permit scheme. UK shark finning permits are only issued where sufficient justification for on-board processing has been provided. UK shark finning permits do not allow separate transshipment or landing of fins and carcasses.

4. National Research Programmes

Research has been conducted into the stock assessment of Yellowfin tuna as part of the BIOT Authorities' contribution to the WPTT, reported in July 2007.

The UK has implemented no national research programmes due to the limited interest in the relevant fisheries.

³ IOTC-2007-WPTT-27: Stock assessment, [R. Hillary](#) and I. Mosqueira

IOTC-2007-WPTT-32, Extra (Stock Assessment) [R. Hillary](#)

IOTC-2007-WPTT-INF06: FLR: an open-source framework for the evaluation and development of management strategies. L. T. Kell, I. Mosqueira, P. Grosjean, J-M. Fromentin, D. Garcia, [R. Hillary](#), E. Jardim, S. Mardle, M. A. Pastoors, J. J. Poos, F. Scott, and R. D. Scott