

REPORT ON THE IOTC FISHERIES STATISTICS RECORD

Prepared by IOTC Secretariat

This document summarises the information received in accordance with IOTC Resolution 08/01 (previously 05/01 and 98/01) *Mandatory statistical requirements for IOTC Members*, IOTC Resolution 05/05 *Concerning the conservation of sharks caught in association with fisheries managed by the IOTC*, IOTC Resolution 06/04 *On reducing incidental bycatch of seabirds on longline fisheries* and IOTC Resolution 09/06 *On Marine turtles*.

Background

The mandatory fisheries statistics comprise three different types of information:

- Nominal catches which are highly aggregated statistics for each species estimated per fleet, gear and year for a large area. If these data are not reported the Secretariat estimates a total catch (eg. CATCH 2007) from a range of sources including:
 - Partial catch and effort data
 - Data in the FAO FishStat database
 - Catches estimated by the IOTC from data collected through port sampling
 - Data published through web pages or other means
 - Data reported by other parties on the activity of vessels (IOTC Resolution 07/04) or on imports of bigeye tuna from vessels under the flag concerned (IOTC Resolution 01/06)
- Catch and effort data: refer to the fine-scale data – usually from logbooks, and reported per fleet, year, gear, type of school, month, grid and species. Information on the use of fish aggregating devices (FADs) and supply vessels is also required.
- Size data: Size frequency distributions of IOTC species per fleet, year, gear, type of school, quarter and 5 degrees square areas.

The Secretariat keeps databases containing the above data and all correspondence concerning data requests, data submissions and other related issues.

Availability of fisheries data for the assessments of Indian Ocean tuna stocks

Figures 1-5 (page 10) show the amount of statistics available for the year 2008 for the five main IOTC species, before the deadline of reporting (June 2009) and at the end of 2009.

Submission of fisheries data for 2008

The status of reporting on fisheries information on the tuna and tuna-like species for the year 2008 is shown in Table 1. Note that the approximate catches shown are indicative only and may not equal exactly the best scientific estimates of the catches as adopted by the IOTC Scientific Committee.

The timeliness of reporting for IOTC CPC is shown in Table 2.

Submission of bycatch data for 2008

The status of reporting on bycatch data for the year 2008 is shown in Table 3. No bycatch data has been received from non-members.

Note: In most cases, there is no independent way of verifying data submitted to the Secretariat, by CPCs.

Table 1. IOTC fisheries statistics (Resolution 08/01). Status of reporting for the year 2008. See key below.

a) IOTC Contracting Parties

IOTC CONTRACTING PARTIES	GEAR	Approximate CATCH 2008 (x1000 t)	Dataset					COMMENTS
			NC	CE	SF	FAD	SUP	
Australia	PS	5.8	✓	✓	✓	-	-	NC and CE data reported to IOTC standards but not fully for release due to current Australian data confidentiality policy. Longline SF data not reported by IOTC grid. SF data for other gears not collected due to low catch levels of tuna and billfish
	LL		✓	✓	⊘	-	-	
	OT		✓	✓	⊙	-	-	
Belize	LL	0.6	✓	✓	⊘	-	-	Size data do not refer to individual fish lengths
China Taiwan,China	LL	6.6	✓	✓	⊙	-	-	CE data not available for the whole of 2008. SF data will be provided in the near future
	LL	37.6	✓	✓	✓	-	-	
	LLs	27.8	✓	⊙	⊙	-	-	
Comoros	OT	11.3	⊙	⊙	⊙	-	-	Comoros has never reported statistics to the IOTC (catches from the FAO database)
Eritrea	OT	0.9	⊙	⊙	⊙	-	-	Eritrea has never reported statistics to the IOTC (catches from the FAO database)
EU	PS	206.2	✓	✓	✓	⊙	⊙	CE incomplete for some EU fleets (CE not reported for some species or not reported by IOTC grid). SF not reported for some EU fleets or incomplete (only available for swordfish).
	LL	8.7	✓	⊘	⊘	-	-	
	OT	0.2	⊙	⊙	⊙	-	-	
France (OT)	PS	10.1	✓	✓	✓	-	-	
	OT	0.8	⊙	⊙	⊙	-	-	
Guinea	LL	0.9	⊙	⊙	⊙	-	-	Guinea has not reported statistics to the IOTC since 2004 (catches estimated by the Secretariat)
India	LL	12.7	⊙	⊙	⊙	-	-	
	OT	138.1	✓	⊙	⊙	-	-	
Indonesia	LL	43.2	✓	⊙	⊘	-	-	NC may not be reported for vessels operating outside Indonesia; SF for not available per IOTC grid.
	OT	171.6	✓	⊙	⊙	-	-	
Iran	PS	4.9	✓	⊙	⊙	⊙	⊙	Around 700 gillnet vessels operate outside the EEZ (some having LOA over 24m)
	OT	138.8	✓	⊙	⊙	-	-	
Japan	PS	5.4	✓	✓	⊙	⊙	-	SF data will be provided in the near future
	LL	35.5	✓	✓	⊙	-	-	

IOTC CONTRACTING PARTIES	GEAR	Approximate CATCH 2008 (x1000 t)	Dataset					COMMENTS
			NC	CE	SF	FAD	SUP	
Kenya	LL	0.2	●	●	●	-	-	
	OT	1.7	⚡	●	●	-	-	Data not available for fisheries other than the sport fishery
Korea, Republic of	LL	2.8	✓	✓	●	-	-	
Madagascar	LL	0.1	●	●	●	-	-	Madagascar has never reported statistics to the IOTC (catches from the FAO database)
	OT	12.0	●	●	●	-	-	
Malaysia	LL	2.9	⚡	⚡	⚡	-	-	NC/CE for vessels operating outside Malaysia may be incomplete. CE/SF data not by IOTC grid.
	OT	18.9	✓	✓	●	-	-	
Mauritius	LL	0.6	✓	✓	⚡	-	-	SF data not reported by IOTC grid
	OT	1.1	●	●	●	-	-	
Oman	LL	5.8	✓	●	●	-	-	SF data available for 2009 (IOTC-OFCF Project)
	OT	33.0	✓	✓	●	-	-	
Pakistan	OT	30.3	●	●	●	-	-	
Philippines	LL	3.2	✓	⚡	●	-	-	CE not derived from a logbook
Seychelles	PS	56.4	✓	✓	✓	●	⚡	Only the number of support vessels reported
	LL	6.8	✓	✓	✓	-	-	
	OT	0.1	✓	✓	●	-	-	SF data for other gears not collected due to low catch levels of tuna and billfish
Sri Lanka	OT	138.8	⚡	⚡	⚡	-	-	NC aggregated by gear. CE and SF data not reported per IOTC grid.
Sudan	OT	0.0	●	●	●	-	-	Sudan has never reported statistics to the IOTC (catches from the FAO database)
Sierra Leone			●	●	●	-	-	IOTC Member since 2008; no statistics reported
Tanzania	LL	0.5	●	●	●	-	-	Tanzania has never reported statistics to the IOTC (catches from the FAO database)
	OT	2.5	●	●	●	-	-	
Thailand	PS	21.7	✓	✓	⚡	●	●	SF for PS not available per IOTC standards (grid, month, school type).
	LL	0.3	✓	✓	●	-	-	
	OT	6.7	✓	✓	●	-	-	
U.K. (I.O. Territories)	OT	0.0	✓	✓	●	-	-	SF data for other gears not collected due to low catch levels of tuna and billfish
Vanuatu						-	-	

b) IOTC Cooperating Non-Contracting Parties

IOTC COOPERATING NON-CONTRACTING PARTIES	GEAR	Approximate CATCH 2008 (x1000 t)	NC	CE	SF	FAD	SUP	COMMENTS
Senegal	LL	0.0	●	●	●	-	-	
South Africa	LL	0.6	✓	✓	✓	-	-	SF data for other gears not collected due to low catch levels of tuna and billfish
	OT	0.0	✓	✓	●	-	-	
Uruguay		0	✓	✓	✓	-	-	No activity in 2008

c) IOTC non CPCs: coastal countries

IOTC non-members	GEAR	Approximate CATCH 2008 (x1000 t)	NC	CE	SF	FAD	SUP	COMMENTS
Bahrain	OT	0.2	✓	●	●	-	-	
Bangladesh	OT	0.0	●	●	●	-	-	
Djibouti	OT	0.0	●	●	●	-	-	
East Timor	OT	0.0	●	●	●	-	-	
Egypt	OT	1.0	●	●	●	-	-	
Jordan	OT	0.1	●	●	●	-	-	
Kuwait	OT	0.1	●	●	●	-	-	
Maldives	OT	116.2	✓	⊘	●	-	-	NC and CE data downloaded from the MOFAR Website; CE not available by IOTC grid
Mozambique	OT	0.0	●	●	●	-	-	Catch levels unknown (probably very low).
Myanmar	OT	0.0	●	●	●	-	-	Catch levels unknown
Qatar	OT	2.1	●	●	●	-	-	
Saudi Arabia	OT	9.1	●	●	●	-	-	
Somalia	OT	0.0	●	●	●	-	-	Catch levels unknown (probably very low).
United Arab Emirates	OT	7.9	●	●	●	-	-	
Yemen	OT	28.5	●	●	●	-	-	NC estimated by the IOTC

Key Table 1

- NC Nominal catch Data (total catches per species, gear, year and IOTC Area)
- CE Surface (PS and OT): catch (weight) and effort (fishing days) data by 1° grid area and month strata, per species and gear.
Longline (LL; LLs): catch (numbers and weight) and effort (number of hooks) by 5° grid area and month strata, per species.
Information recorded under PS and/or LL refers, totally or partially, to vessels having length overall above 24 meters.
- SF Length data, including the total number of fish measured, per 5° grid area and month, by species, gear and fishing mode
- FAD Total number and type of Fish Aggregating Devices operated by the fleet by 5° grid area and month basis (applies only to industrial purse seiners)
- SUP Number, characteristics and levels of activity of supply vessels (of tuna purse seiners)
- GEAR **PS** Industrial Purse seine (above 24 meters length overall 'LOA')
LL Industrial Longline (having LOA greater than 24 meters in most cases)
LLs Small Longlines (having LOA between 15m and 24m in most cases)
Res Research/Training vessels
OT refers to gears other than industrial purse seines and longlines (vessels with LOA over 24 m are not likely to occur)

✓	Data reported by IOTC standards
⚡	Data reported but not to IOTC standards (e.g. catches and effort or size frequency not reported per month or one degree or five degree square area)
●	No data received
-	No data expected

Table 2. IOTC fisheries statistics (Resolution 08/01). Timeliness of reporting data for the year 2008.

Dataset	On / before Deadline	Late report	No Report
Nominal Catch	Australia, Belize, EU, France (OT) Japan, Korea, Malaysia, Philippines, Seychelles, South Africa, Thailand, U.K. (I.O. Territories), Uruguay	China; India Iran, Kenya, Indonesia, Mauritius, Oman, Sri Lanka	Comoros, Eritrea, Guinea, Madagascar, Pakistan, Senegal, Sierra Leone, Sudan, Tanzania, Vanuatu
Catch and Effort	Australia, Belize, EU, France (OT), Japan, Korea, Malaysia, Philippines, Seychelles, South Africa, Thailand, U.K. (I.O. Territories), Uruguay	China, Mauritius, Oman, Sri Lanka	Comoros, Eritrea, Guinea, Indonesia, India, Iran, Kenya, Madagascar, Pakistan, Sierra Leone, Sudan, Tanzania, Senegal, Vanuatu
Size Frequency	Australia, Belize, EU, France (OT), Indonesia, Malaysia, Seychelles, South Africa, Thailand, Uruguay	Mauritius, Sri Lanka,	China, Comoros, Eritrea, Guinea, India, Iran, Japan, Kenya, Korea, Madagascar, Oman, Pakistan, Philippines, Senegal, Sierra Leone, Sudan, Tanzania, U.K. (I.O. Territories), Vanuatu
Fish Aggregating Devices purse seine			Seychelles, EU, France (OT), Iran, Japan, Thailand
Supply Vessels purse seine			EU, Seychelles, Thailand

Table 3. IOTC bycatch statistics. Status of reporting for the year 2008 (total catches only).

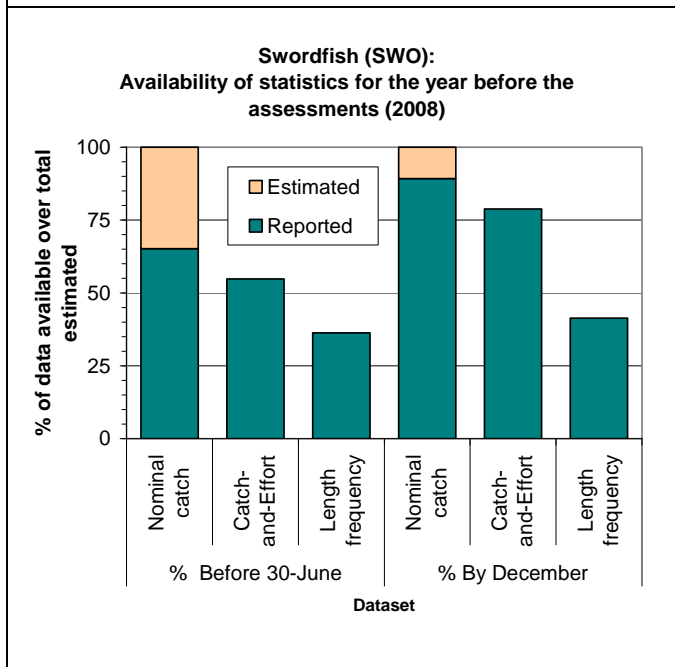
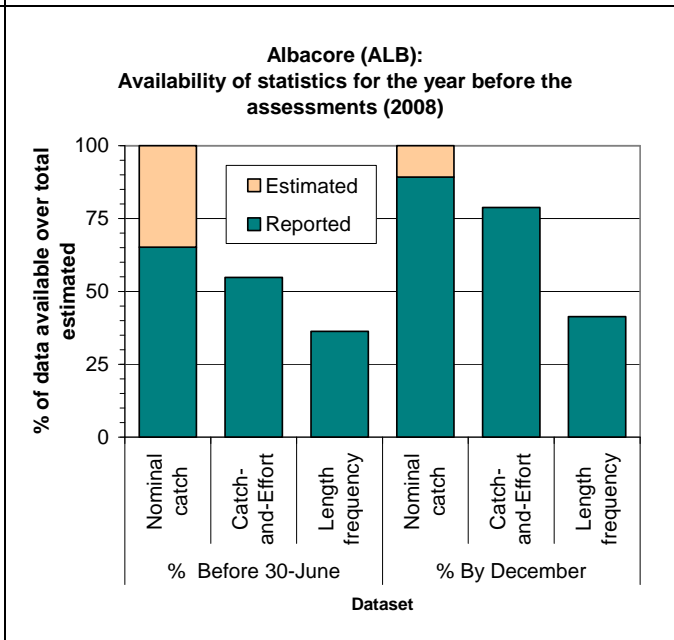
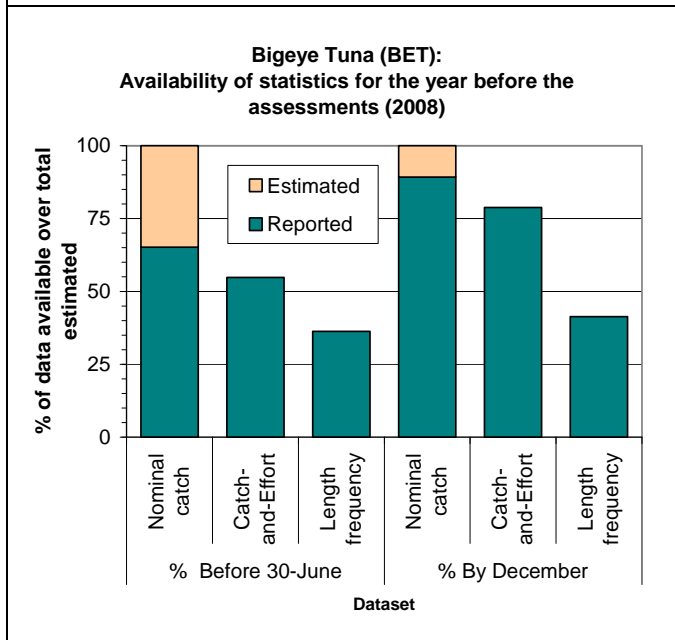
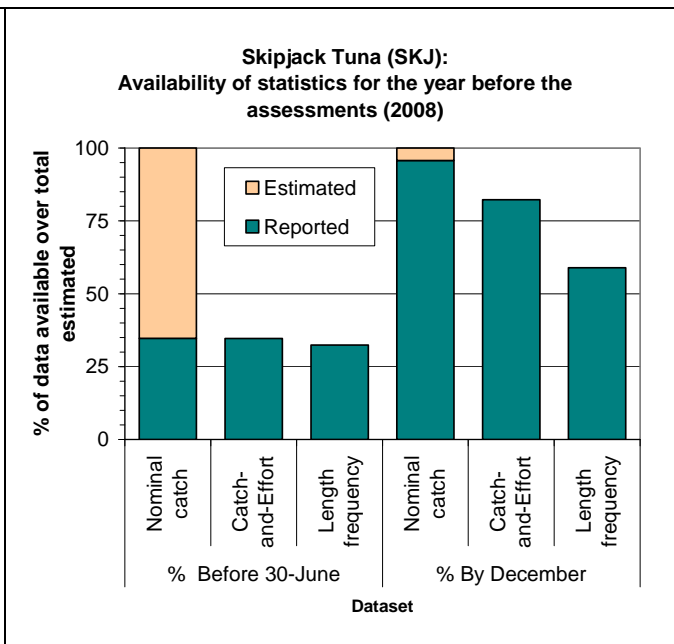
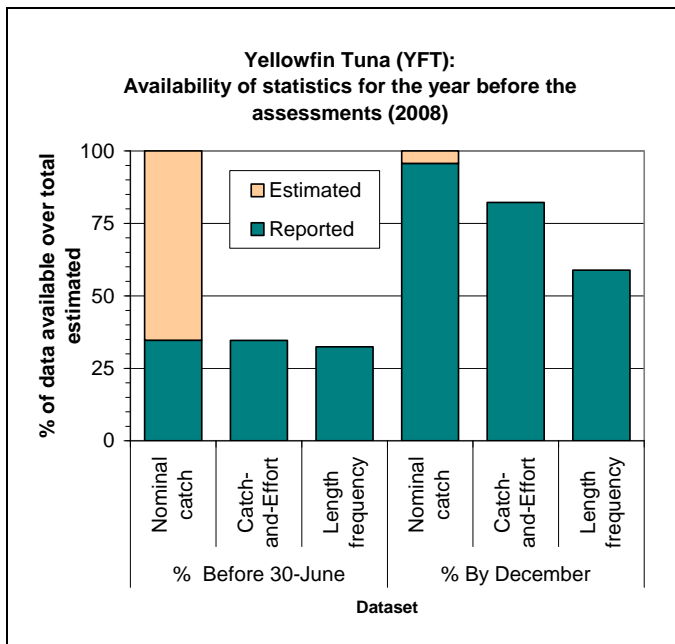
a) IOTC Contracting Parties

IOTC CPC	GEAR	SPECIES GROUP			COMMENTS
		Sharks	Sea birds	Marine turtles	
Australia	PS	✓	✓	✓	CE and SF not reported for sharks
	LL	≡	✓	✓	
	OT	≡			
Belize	LL	≡			Data not reported by species. SF not reported
China Taiwan,China	LL	≡			Data not reported fully by species
	LL	≡			Data not reported for small longliners and not by species
Comoros	OT				
Eritrea	OT				
EU	PS	✓	✓	✓	Data not reported by species for some fleets. CE/SF not reported
	LL	≡			
	OT				
France (OT)	PS, OT				
Guinea	LL				
India	LL,OT				
Indonesia	LL	≡			Data not reported by species. Data not reported for large longliners. CE/SF not available
	OT	≡			
Iran	PS, OT				
Japan	PS, LL				
Kenya	LL, OT				
Korea, Republic of	LL	≡			Data not reported fully by species; CE/SF not available

IOTC CPC	GEAR	SPECIES GROUP			COMMENTS
		Sharks	Sea birds	Marine turtles	
Madagascar	LL				
	OT				
Malaysia	LL	⚡			Data not reported by species. SF not available
	OT	⚡			
Mauritius	LL	⚡			Data not reported by species; SF not available
	OT				
Oman	LL, OT	⚡			Data not reported by species; SF not available
Pakistan	OT				
Philippines	LL				
Seychelles	PS, OT				Data not reported fully by species; SF not available
	LL	⚡			
Sierra Leone					
Sri Lanka	OT	⚡			Data not reported by species for some fleets.
Sudan	OT				
Tanzania	OT				
Thailand	PS, LL, OT				
U.K. (I.O. Territories)	OT	⚡			Data not reported by species; SF not available
Vanuatu					
Senegal	LL				
South Africa	LL	✓	✓	✓	
	OT	✓			
Uruguay		✓	✓	✓	No activity in 2007 or 2008

Key Table 3

Sharks	Total catches of sharks reported
Sea Birds	Total by-catch of sea birds (or CPUE) reported
Marine Turtles	Total by-catch of marine turtles (or CPUE) reported
GEAR	
	PS Industrial Purse seine (above 24 meters length overall 'LOA')
	LL Industrial Longline (having LOA greater than 24 meters in most cases)
	OT refers to gears other than industrial purse seines and longlines (vessels with LOA over 24 m are not likely to occur)
✓	Data reported by IOTC standards
⚡	Data reported but not to IOTC standards (e.g. catches and effort or size frequency not reported per month or one degree or five degree square area)
	(blank) No data received



Figures 1-5: Amount of statistics available for the year before the assessments* of the five main IOTC species:

Nominal catches: amount of nominal catches available (Reported) versus those not reported (Estimated by the IOTC Secretariat)

Catch and effort: proportion that the nominal catches from strata for which catch-and-effort data are available made out of the total nominal catches estimated

Length frequency: proportion that the nominal catches from strata for which length frequency data are available made out of the total nominal catches estimated

*Refers to the amount of statistics available for the year 2008, to be used in the assessments conducted by the IOTC WP in 2009