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[China] National Report to the Scientific Committee of the Indian Ocean Tuna Commission, 2012

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INFORMATION ON FISHERIES, RESEARCH AND STATISTICS

In accordance with IOTC Resolution 10/02, final scientific data for the previous year was provided to the Secretariat by 30 June of the current year, **for all fleets other than longline** [e.g. for a National report submitted to the Secretariat in 2012 final data for the 2011 calendar year must be provided to the Secretariat by 30 June 2012)	YES 30/06/2012
In accordance with IOTC Resolution 10/02, provisional **longline data** for the previous year was provided to the Secretariat by 30 June of the current year [e.g. for a National report submitted to the Secretariat in 2012, preliminary data for the 2011 calendar year was provided to the Secretariat by 30 June 2012). **REMINDER:** Final longline data for the previous year is due to the Secretariat by 30 Dec of the current year [e.g. for a National report submitted to the Secretariat in 2012, final data for the 2011 calendar year must be provided to the Secretariat by 30 December 2012).	YES 30/06/2012
If no, please indicate the reason(s) and intended actions:	

Executive Summary [Mandatory]

Longline is the only fishing method used by Chinese vessels to catch tuna and tuna-like species in the IOTC waters. The number of longliners operating in the Indian Ocean reduced from 20 in 2010 to 15 in 2011 due to piracy, with the main fishing area shifting to the central and southern Indian Ocean (60 ºE ~ 90ºE , 10ºS ~35ºS). Chinese fishing fleet caught 1845 MT of main tunas (BET, YFT, ALB) in 2011 (72 % lower than the catch of 6643 MT in 2010). The bigeye tuna and yellowfin tuna catches both from deep freezing longliners and ice fresh longliners have been declined dramatically since 2006. The albacore catch from both deep freezing longliners and ice fresh longliners decreased greatly in 2011, compared with in 2010. The logbook and observer programs are going on for the Chinese longline fleets in the Indian Ocean, from which catch and effort data collection of bycatch species are being improved. No scientific observer was sent out for work due to the piracy issue in 2011.

1. BACKGROUND/GENERAL FISHERY INFORMATION [MANDATORY]

Longline has been the only fishing gear for the China mainland fleets in the IOTC waters since 1995. One hundred-twenty longline fishing boats were recorded at the peak time in 1998, which mainly consisted of small non-professional boats reconstructed from trawlers or gill-netters, which originally operated along China coastal waters. After 1998 the number of fishing boats reduced due to poor management, low economic performance and fishing ground shift to other Oceans. The total number of tuna fishing boats registered in IOTC Secretariat reduced to 93 in 2001 and further cut to 63 in 2002. The number of fishing boats active reduced from 46 in 2008 to 32 in 2009, of which 27 belongs to the large-size deep frozen longliners due to the piracy activity in November 2008. The deep freezing tuna longliners usually operated in waters between 40 ºE ~ 90ºE and 20ºN ~ 40ºS before 2008. Since 2009, however, most of the fishing effort was shifted to southern Indian Ocean. In 2011, more tuna fishing vessels moved out of the IOTC area of competence.

2. FLEET STRUCTURE [MANDATORY]

The Chinese tuna fleet consisted of deep freezing longliners (Deep LL) and ice fresh longliners (ICE LL) in the Indian Ocean. The fleet structure was shown in **Table 1**.

Table 1: Number of vessels operating in the IOTC area of competence, by gear type and size

Year	Gear	Vessel size range	Number of vessel
2006	Deep LL	GRT over 400	41
	ICE LL	GRT 200- 400	26
2007	Deep LL	GRT over 400	41
	ICE LL	GRT 200- 400	26
2008	Deep LL	GRT over 400	31
	ICE LL	GRT 200- 400	15
2009	Deep LL	GRT over 400	27
	ICE LL	GRT 200- 400	5
2010	Deep LL	GRT over 400	15
	ICE LL	GRT 200- 400	5
2011	Deep LL	GRT over 400	10
	ICE LL	GRT 200- 400	5

3. CATCH AND EFFORT (BY SPECIES AND GEAR) [Mandatory]

Annual catch and effort of Chinese fleet by gear and primary species in the IOTC area of competence were shown in **Table 2**. The Deep LL effort in 2011 was 81% lower than that in 2010. The ICE LL effort in 2011 was 24% lower than that in 2010.

Table 2. Annual catch and effort by gear and primary species in the IOTC area of competence. Include a 'not elsewhere indicated – NEI' category for all other catch combined. [Note: Multiple tables may be required e.g. **Table 2a, 2b, 2c). [Mandatory]**

Table 2a Bigeye tuna

Year	Gear	Effort (1000 hooks)	Catch (mt)
2006	Deep LL	31643	8236
2007	Deep LL	27644	6974
2008	Deep LL	22215	4643
2009	Deep LL	14417	2657
2010	Deep LL	15305	1394
2011	Deep LL	2858	234

Table 2b Bigeye tuna

Year	Gear	Effort (1000 hooks)	Catch (mt)
2006	ICE LL	3642	466
2007	ICE LL	2431	193
2008	ICE LL	3931	320
2009	ICE LL	621	4
2010	ICE LL	1689	4
2011	ICE LL	1278	6

Table 2c Yellowfin tuna

Year	Gear	Effort (1000 hooks)	Catch (mt)
2006	Deep LL	31643	3592
2007	Deep LL	27644	2652
2008	Deep LL	22215	747
2009	Deep LL	14417	449
2010	Deep LL	15305	492
2011	Deep LL	2858	189

Table 2d Yellowfin tuna

Year	Gear	Effort (1000 hooks)	Catch (mt)
2006	ICE LL	3642	265
2007	ICE LL	2431	173
2008	ICE LL	3931	150
2009	ICE LL	14417	4
2010	ICE LL	1689	4.2
2011	ICE LL	1278	2

Table 2e Skipjack

Year	Gear	Effort (1000 hooks)	Catch (mt)
2006	Deep LL	31643	0
2007	Deep LL	27644	0
2008	Deep LL	22215	0
2009	Deep LL	14417	0
2010	Deep LL	15305	0
2011	Deep LL	2858	0

Table 2f Skipjack

Year	Gear	Effort (1000 hooks)	Catch (mt)
2006	ICE LL	3642	0
2007	ICE LL	2431	0
2008	ICE LL	3931	0
2009	ICE LL	14417	0
2010	ICE LL	1689	0

2011	ICE LL	1278	0

Table 2g Albacore

Year	Gear	Effort (1000 hooks)	Catch (mt)
2006	Deep LL	31643	54
2007	Deep LL	27644	77
2008	Deep LL	22215	145
2009	Deep LL	14417	210
2010	Deep LL	15305	3946
2011	Deep LL	2858	972

Table 2h Albacore

Year	Gear	Effort (1000 hooks)	Catch (mt)
2006	ICE LL	3642	2
2007	ICE LL	2431	39
2008	ICE LL	3931	13
2009	ICE LL	621	179
2010	ICE LL	1689	803
2011	ICE LL	1278	442

Table 2i Swordfish

Year	Gear	Effort (1000 hooks)	Catch (mt)
2006	Deep LL	31643	742
2007	Deep LL	27644	441
2008	Deep LL	22215	387
2009	Deep LL	14417	240
2010	Deep LL	15305	790
2011	Deep LL	2858	160

Table 2j Swordfish

Year	Gear	Effort (1000 hooks)	Catch (mt)
2006	ICE LL	3642	33
2007	ICE LL	2431	9
2008	ICE LL	3931	32
2009	ICE LL	621	1
2010	ICE LL	1689	2
2011	ICE LL	1278	1

Table 2k Blue marlin

Year	Gear	Effort (1000 hooks)	Catch (mt)
2006	Deep LL	31643	Not available
2007	Deep LL	27644	Not available
2008	Deep LL	22215	Not available
2009	Deep LL	14417	75
2010	Deep LL	15305	105
2011	Deep LL	2858	38

Table 2l Blue marlin

Year	Gear	Effort (1000 hooks)	Catch (mt)
2006	ICE LL	3642	Not available
2007	ICE LL	2431	Not available
2008	ICE LL	3931	Not available
2009	ICE LL	621	1
2010	ICE LL	1689	<1
2011	ICE LL	1278	1

Table 2m	Striped marlin		
Year	**Gear**	**Effort (1000 hooks)**	**Catch (mt)**
2006	Deep LL	31643	Not available
2007	Deep LL	27644	Not available
2008	Deep LL	22215	Not available
2009	Deep LL	14417	87
2010	Deep LL	15305	89
2011	Deep LL	2858	31

Table 2n	Striped marlin		
Year	**Gear**	**Effort (1000 hooks)**	**Catch (mt)**
2006	ICE LL	3642	Not available
2007	ICE LL	2431	Not available
2008	ICE LL	3931	Not available
2009	ICE LL	621	0
2010	ICE LL	1689	1
2011	ICE LL	1278	1

Table 2o	Black marlin		
Year	**Gear**	**Effort (1000 hooks)**	**Catch (mt)**
2006	Deep LL	31643	Not available
2007	Deep LL	27644	Not available
2008	Deep LL	22215	Not available
2009	Deep LL	14417	33
2010	Deep LL	15305	16
2011	Deep LL	2858	11

Table 2p	Black marlin		
Year	**Gear**	**Effort (1000 hooks)**	**Catch (mt)**
2006	ICE LL	3642	Not available
2007	ICE LL	2431	Not available
2008	ICE LL	3931	Not available
2009	ICE LL	621	0
2010	ICE LL	1689	<1
2011	ICE LL	1278	<1

Figure 1. Historical annual catch for the national fleet, by gear and primary species, for the IOTC area of competence for the entire history of the fishery/fleet. **[Mandatory]**

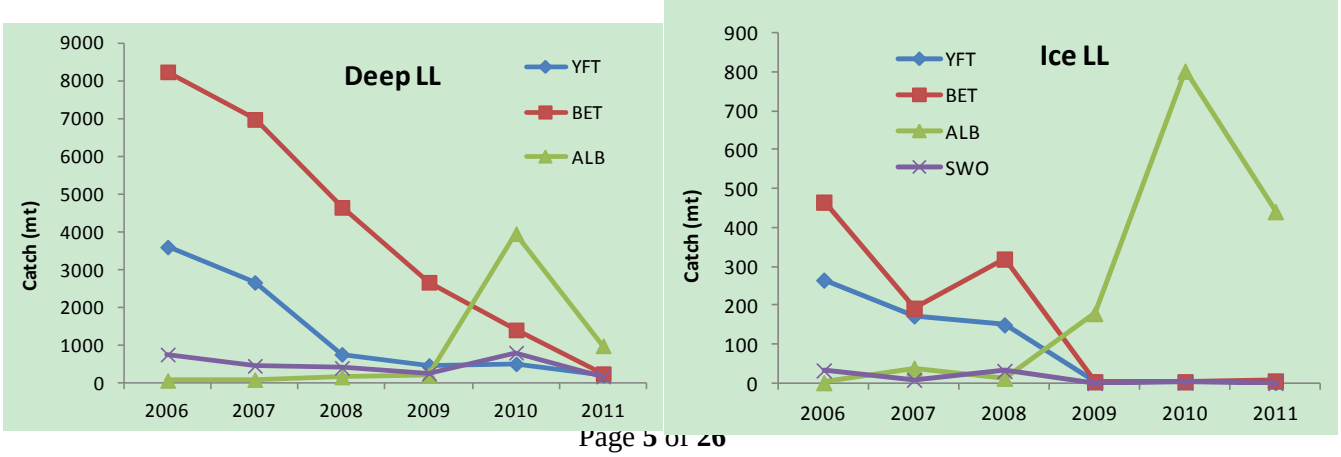
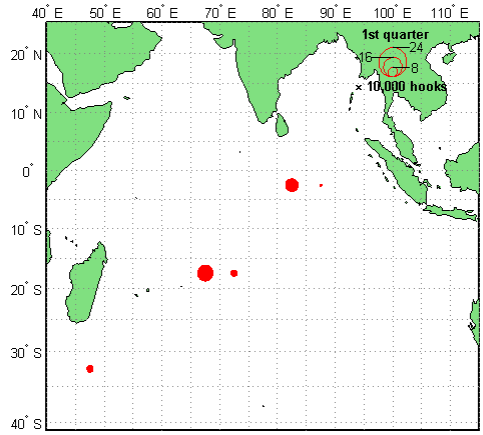
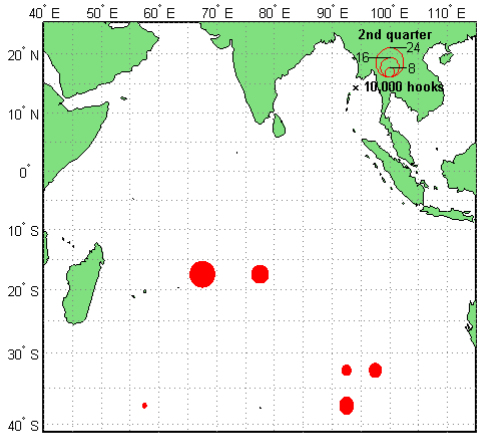


Figure 2a. Map of the distribution of fishing effort, by gear type for the national fleet in the IOTC area of competence (most recent year e.g. 2011). **[Mandatory]**

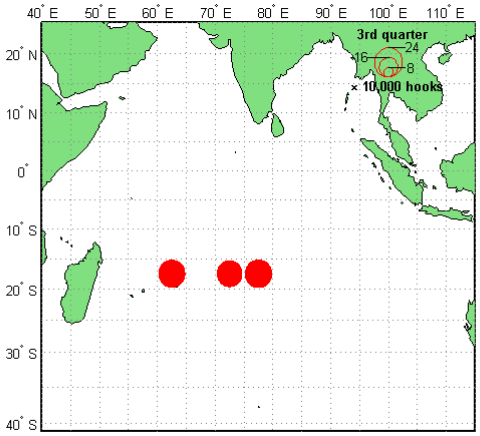
2011-DeepLL-Effort-1st quarter



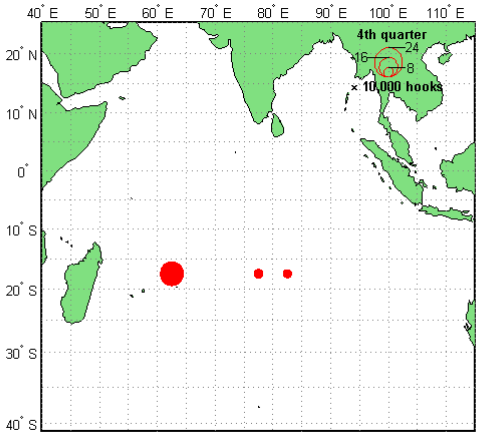
2011-DeepLL-Effort-2nd quarter



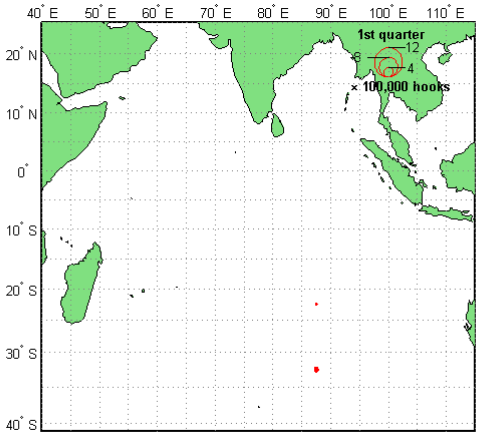
2011-DeepLL-Effort-3rd quarter



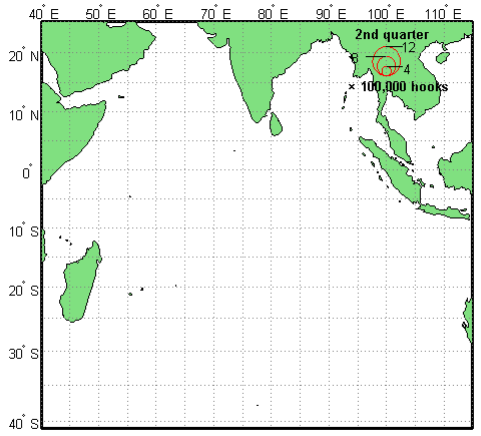
2011-DeepLL-Effort-4th quarter



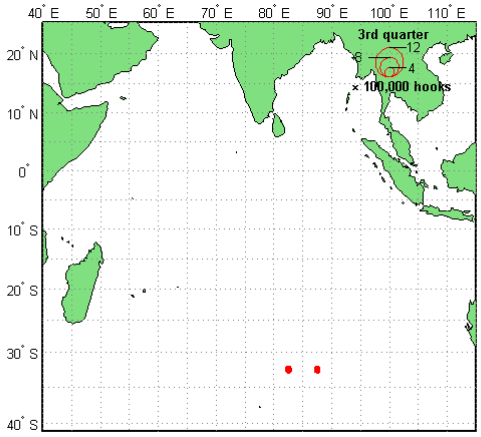
2011-ICELL-Effort-1st quarter



2011-ICELL-Effort-2nd quarter



2011-ICELL-Effort-3rd quarter



2011-ICELL-Effort-4th quarter

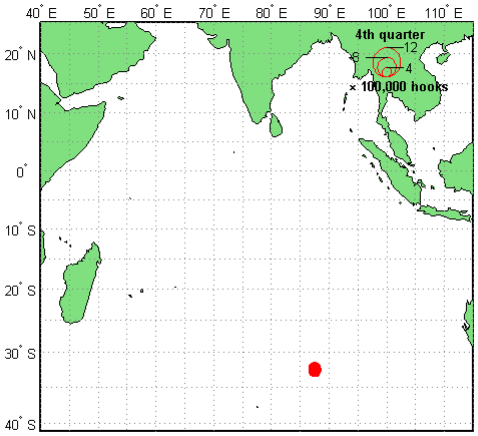
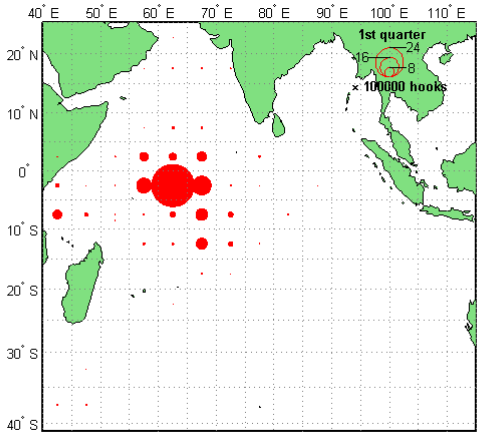
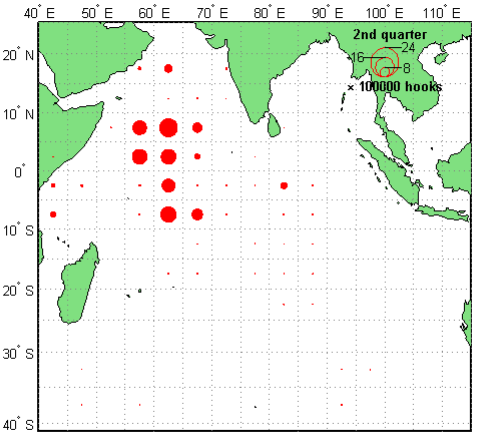


Figure 2b. Map of the distribution of fishing effort, by gear type for the national fleet in the IOTC area of competence (average of the 5 previous years e.g. 2007–2011). **[Mandatory]**

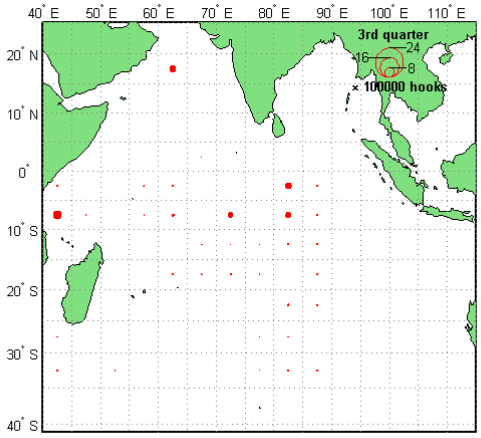
(2007-2011)-DeepLL-Effort-1st quarter



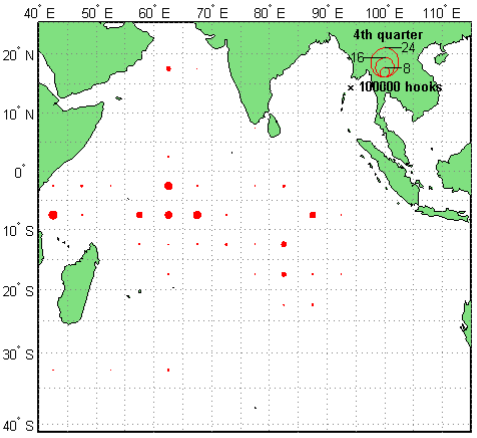
(2007-2011)-DeepLL-Effort-2nd quarter



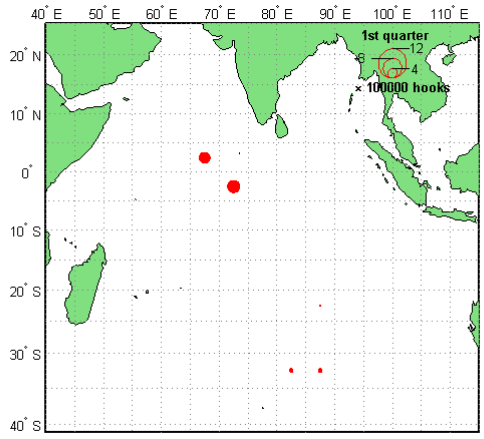
(2007-2011)-DeepLL-Effort-3rd quarter



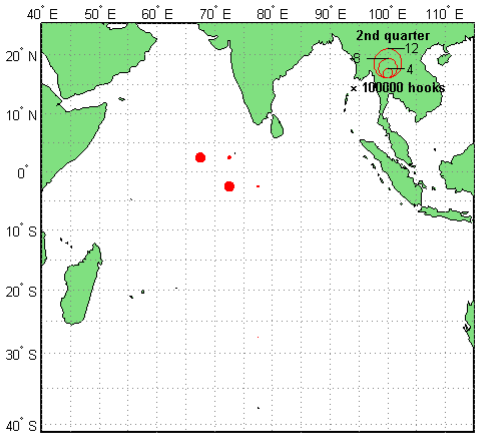
(2007-2011)-DeepLL-Effort-4th quarter



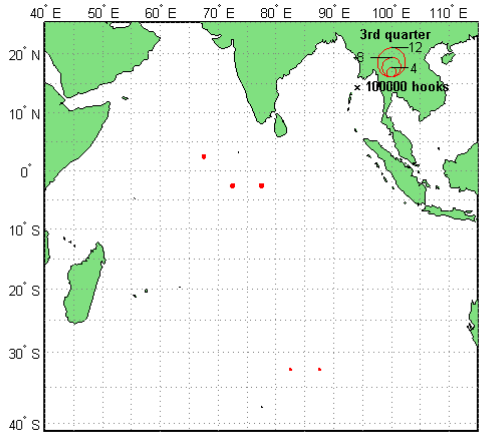
(2007-2011)-ICELL-Effort-1st quarter



(2007-2011)-ICELL-Effort-2nd quarter



(2007-2011)-ICELL-Effort-3rd quarter



(2007-2011)-ICELL-Effort-4th quarter

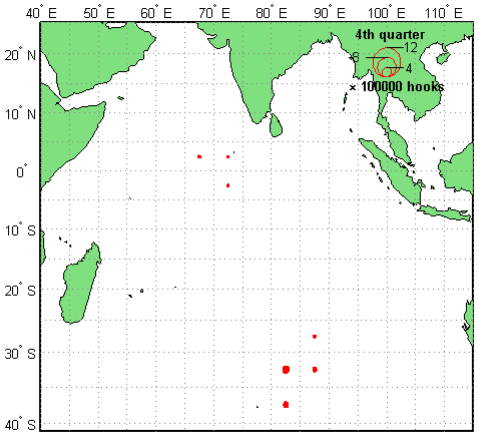
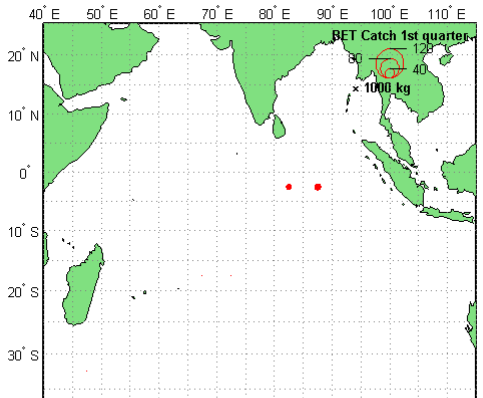
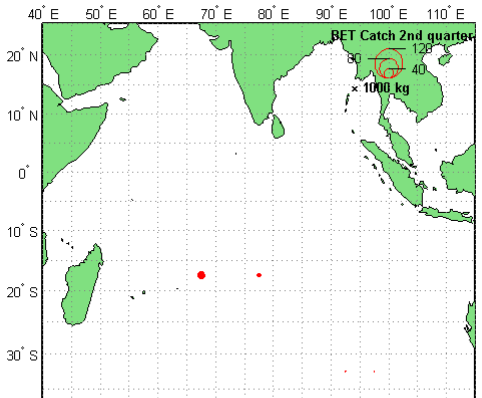


Figure 3a. Map of distribution of fishing catch, by species for the national fleet, in the IOTC area of competence (most recent year e.g. 2011). **[Mandatory]**

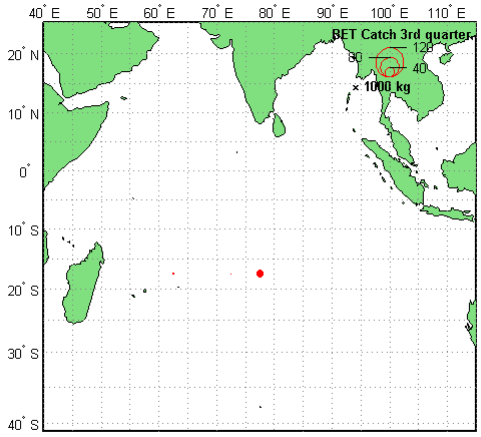
DeepLL-2011-BET Catch-1st quarter



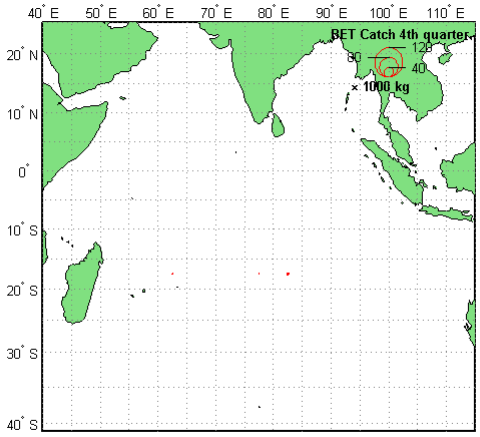
DeepLL-2011-BET Catch-2nd quarter



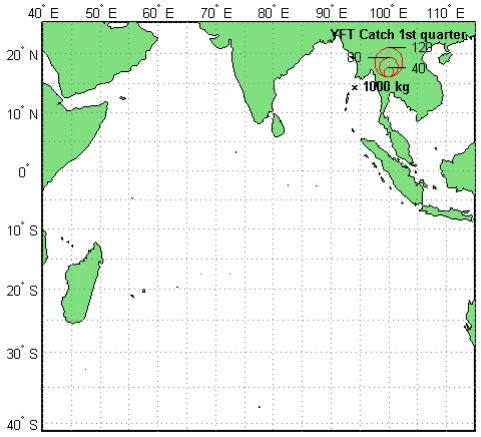
DeepLL-2011-BET Catch-3rd quarter



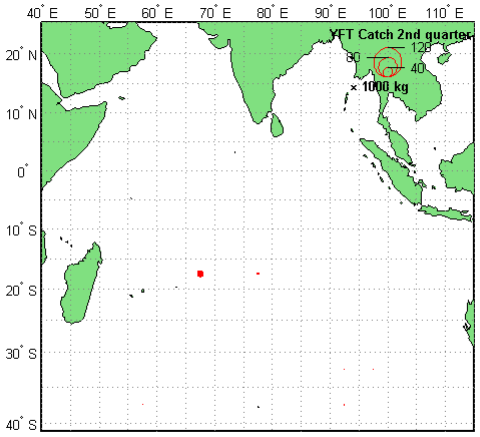
DeepLL-2011-BET Catch-4th quarter



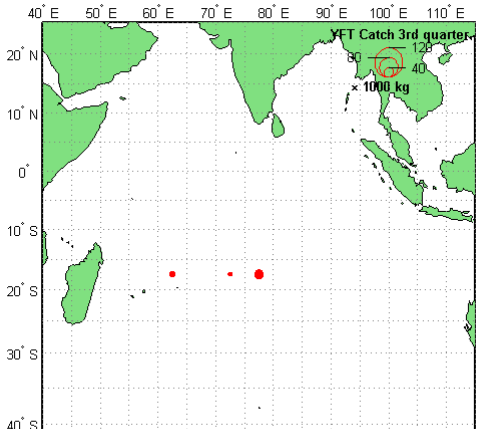
DeepLL-2011-YFT Catch-1st quarter



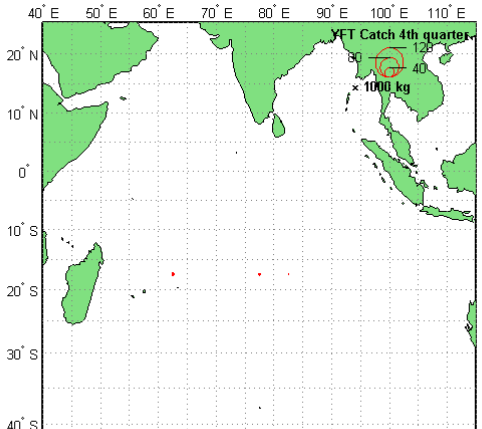
DeepLL-2011-YFT Catch-2nd quarter



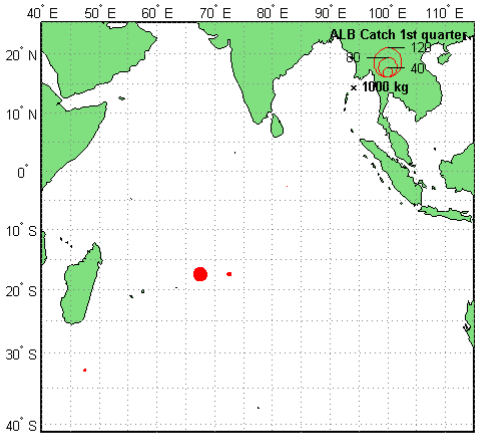
DeepLL-2011-YFT Catch-3rd quarter



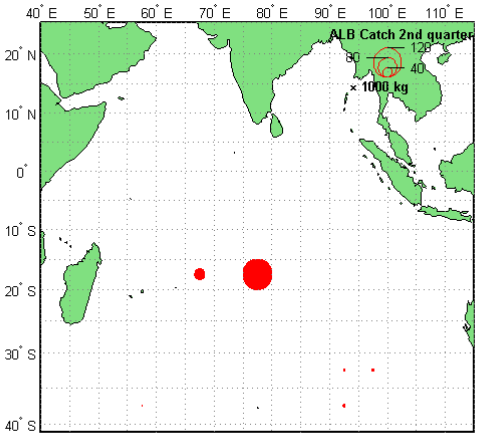
DeepLL-2011-YFT Catch-4th quarter



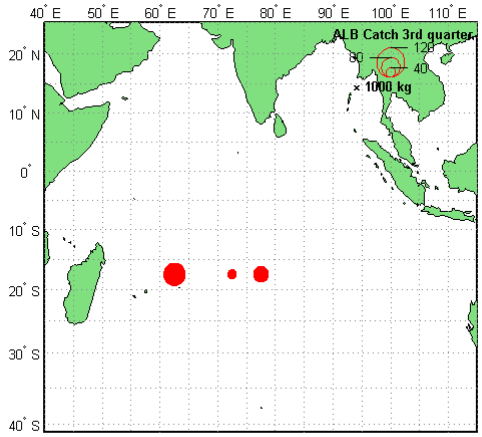
DeepLL-2011-ALB Catch-1st quarter



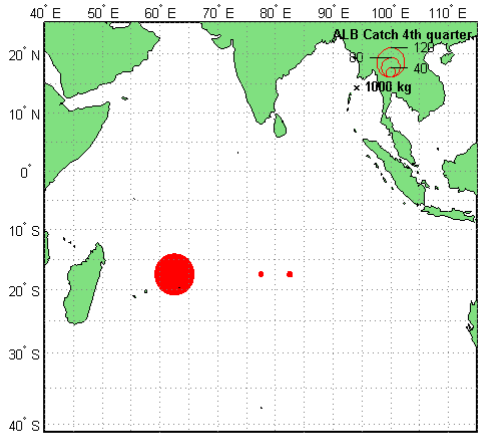
DeepLL-2011-ALB Catch-2nd quarter



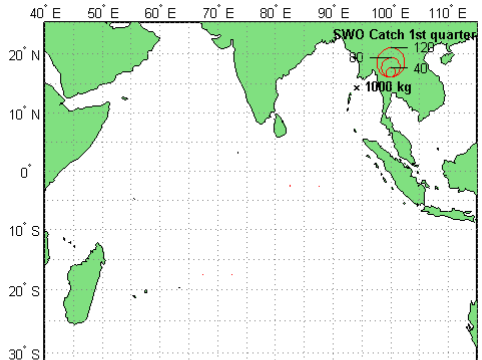
DeepLL-2011-ALB Catch-3rd quarter



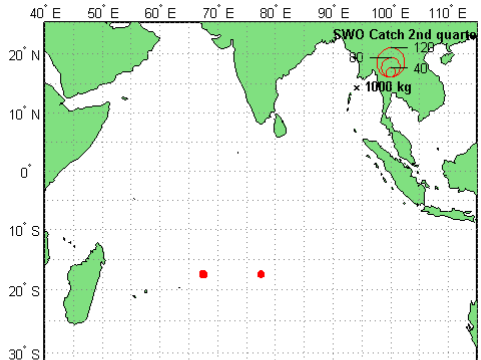
DeepLL-2011-ALB Catch-4th quarter



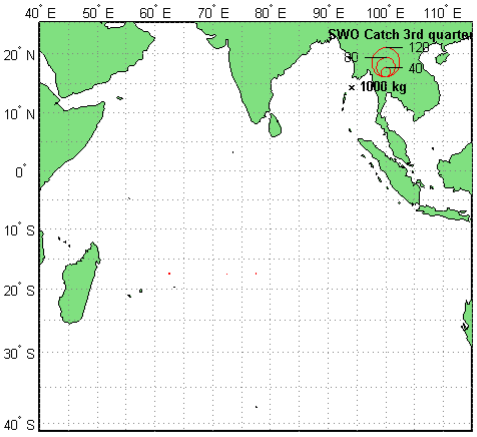
DeepLL-2011-SWO Catch-1st quarter



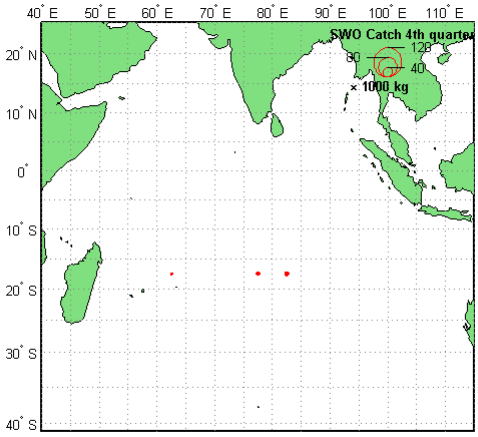
DeepLL-2011-SWO Catch-2nd quarter



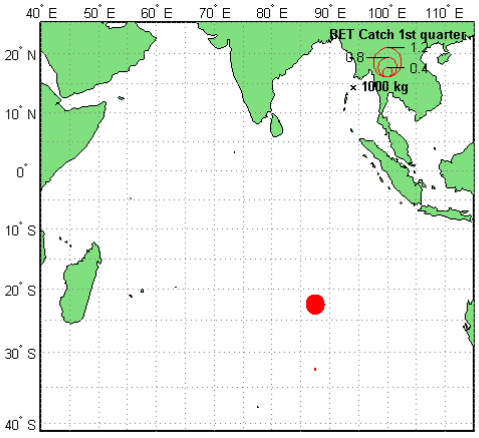
DeepLL-2011-SWO Catch-3rd quarter



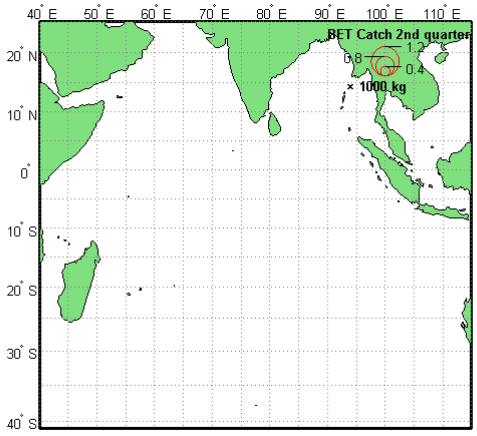
DeepLL-2011-SWO Catch-4th quarter



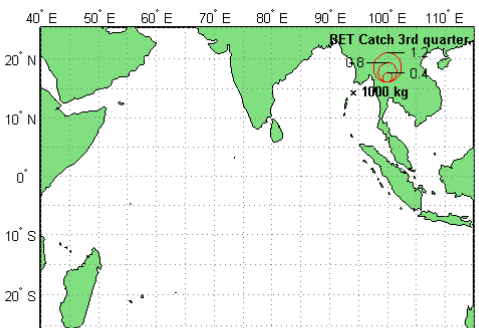
ICELL-2011-BET Catch-1st quarter



ICELL-2011-BET Catch-2nd quarter



ICELL-2011-BET Catch-3rd quarter



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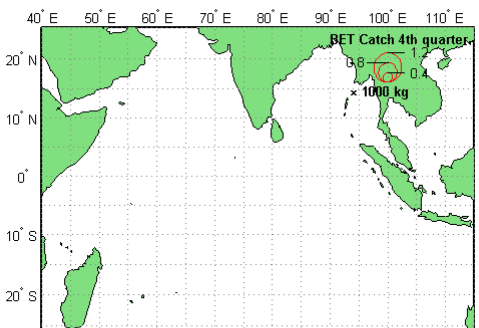

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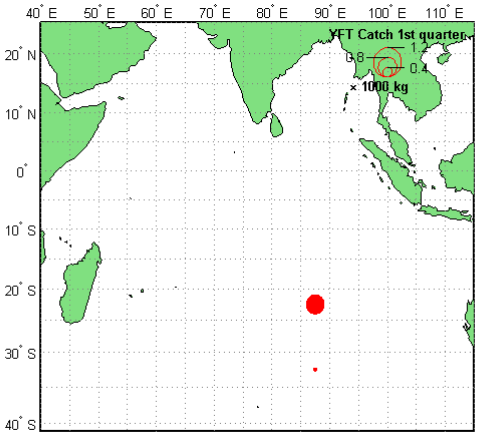

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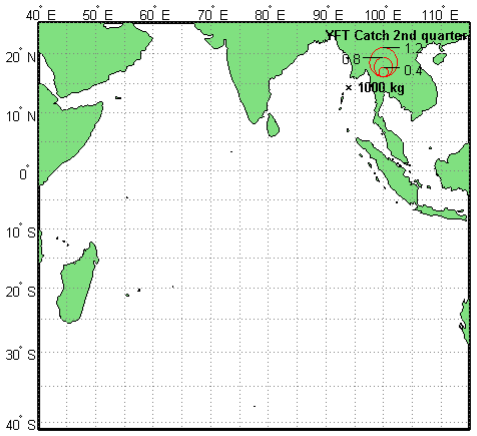

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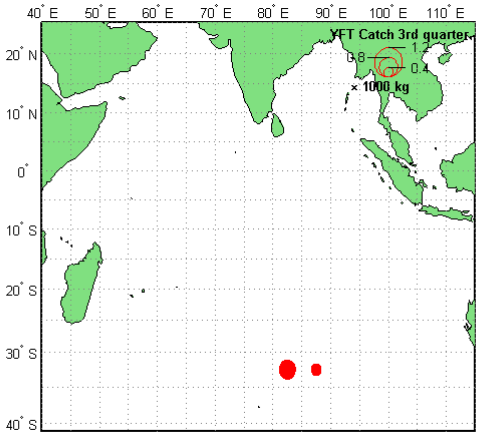

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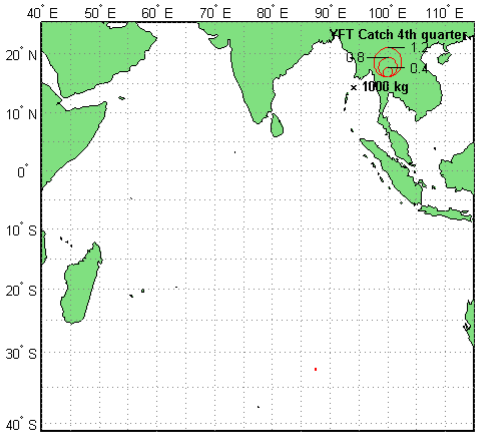

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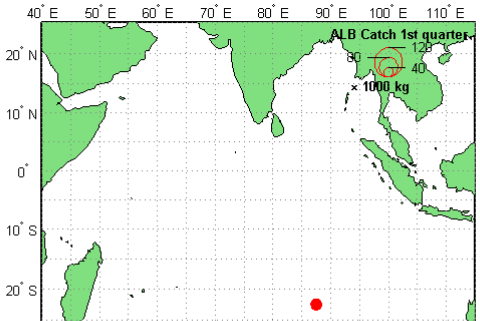

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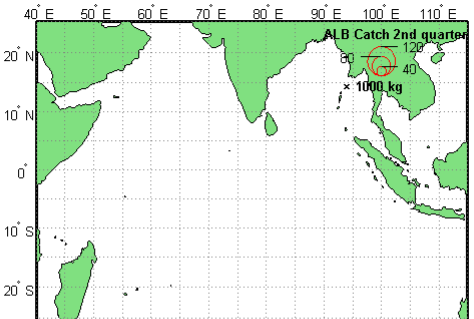

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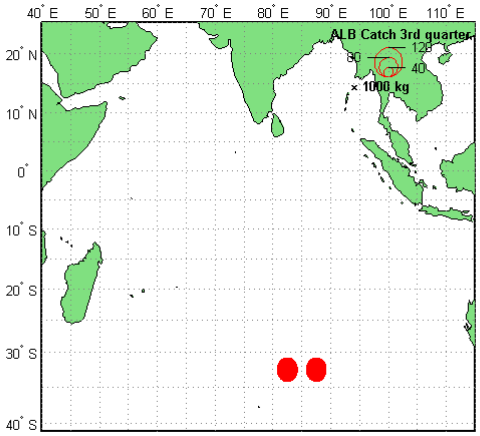

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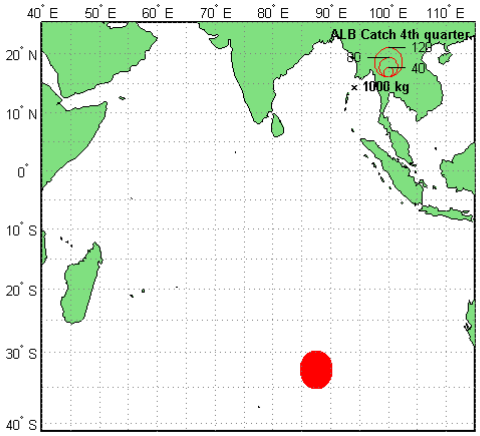

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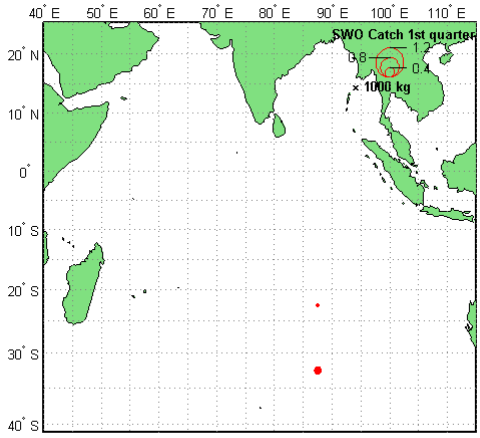

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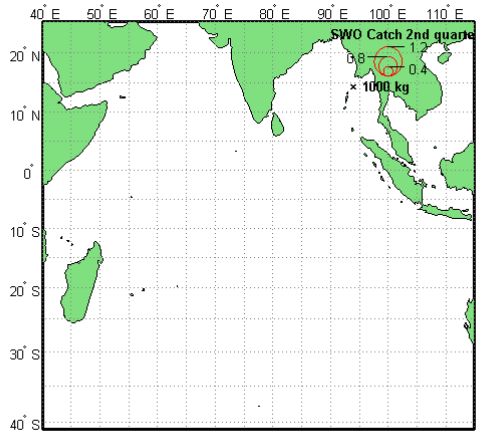

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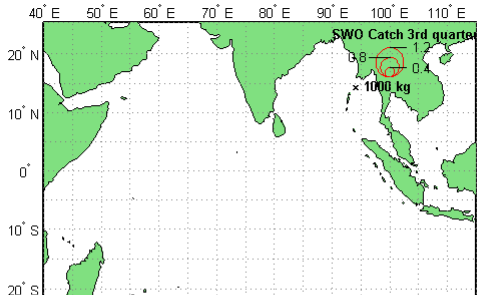

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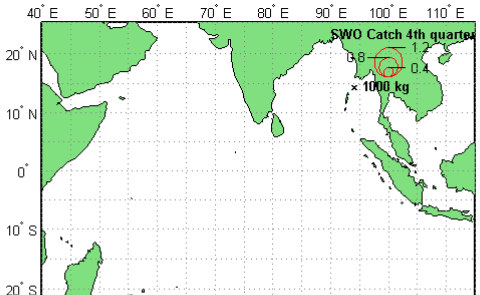
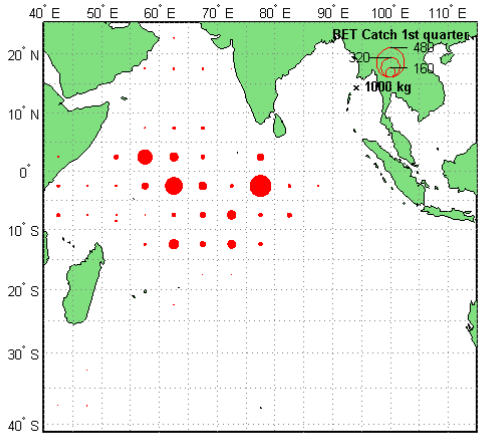


Figure 3b. Map of distribution of fishing catch, by species for the national fleet, in the IOTC area of competence (average of the 5 previous years e.g. 2007–2011). **[Mandatory]**

DeepLL(2007-2011)-BET Catch-1st quarter



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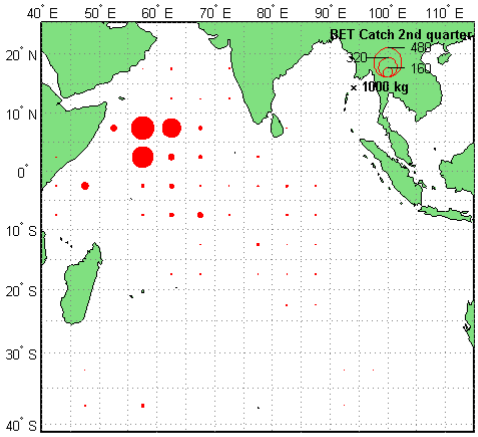
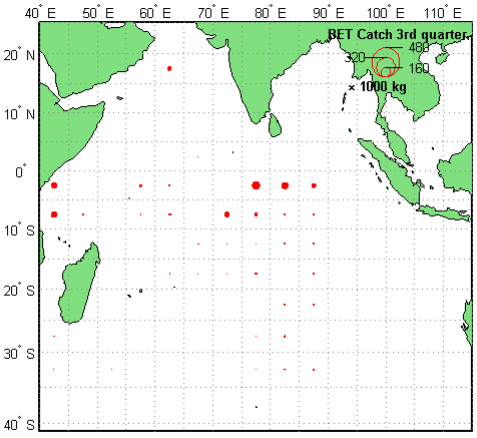


DeepLL(2007-2011)-BET Catch-3rd quarter



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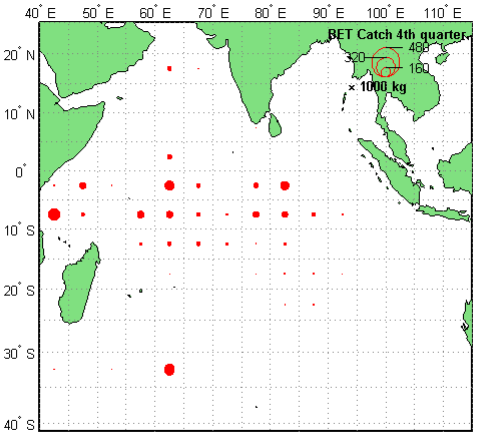
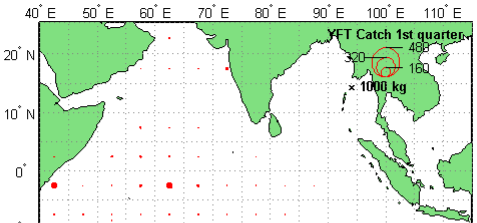


DeepLL(2007-2011)-YFT Catch-1st quarter



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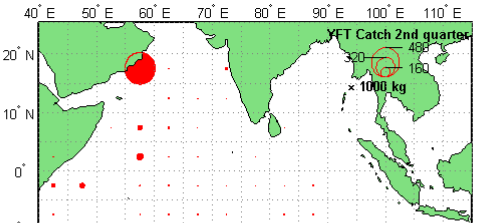

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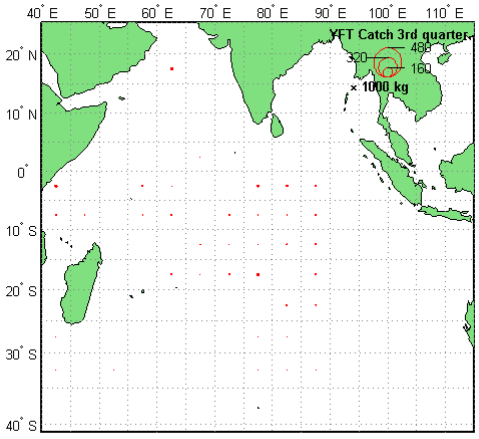

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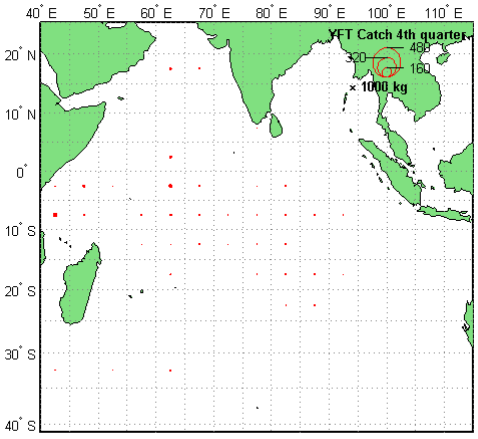

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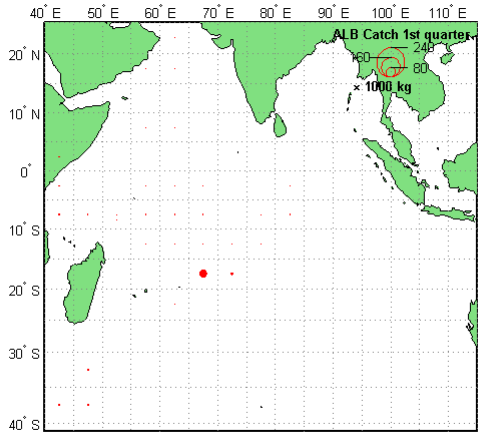

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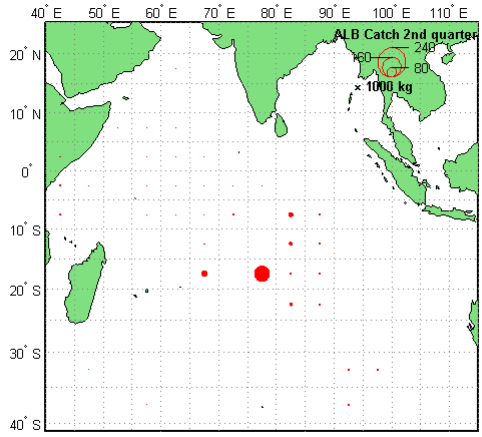

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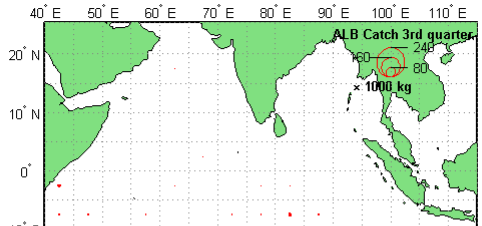

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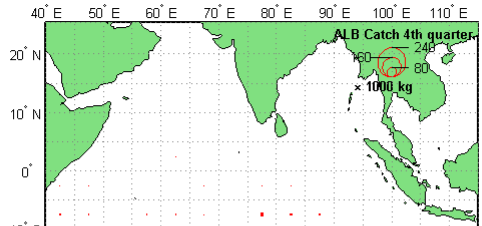
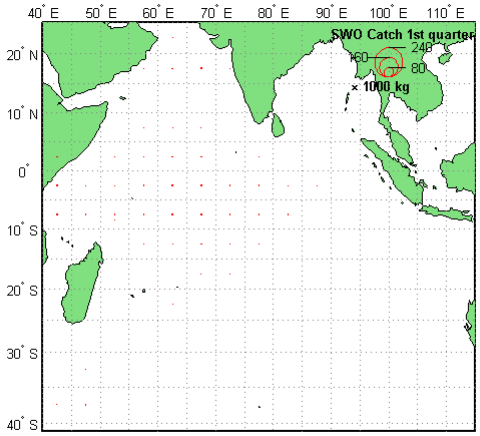


DeepLL(2007-2011)-SWO Catch-1st quarter



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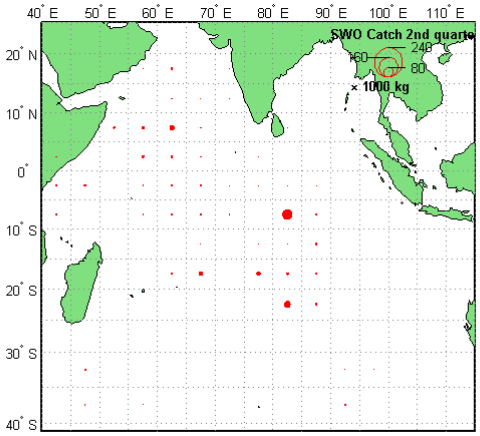

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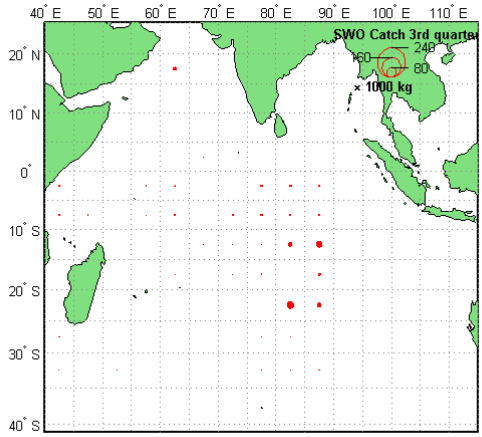

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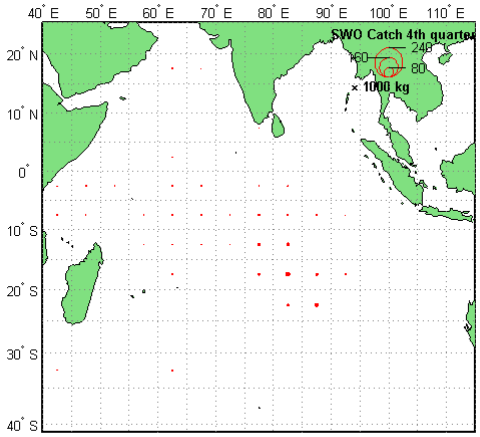

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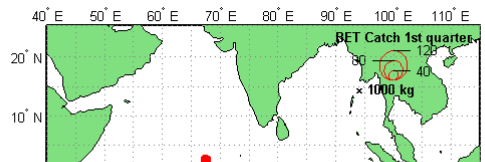

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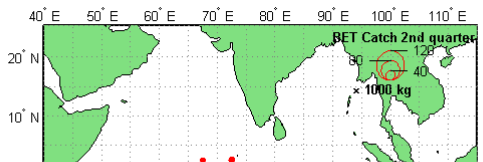
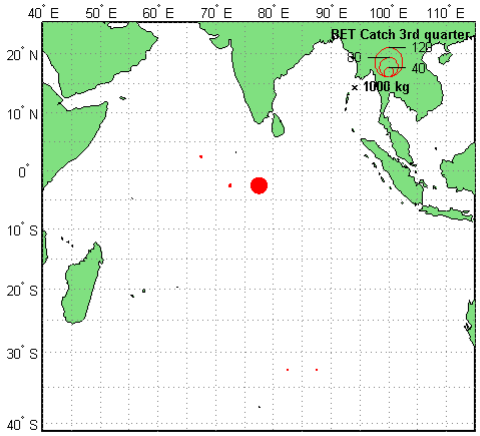
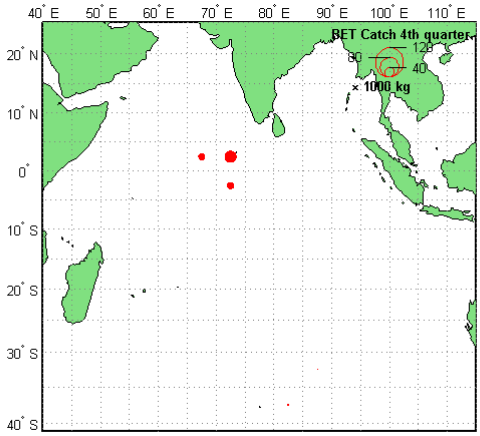


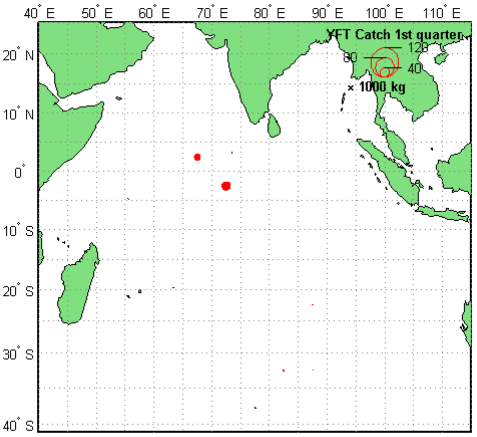
ICELL(2007-2011)-BET Catch-3rd quarter



ICELL(2007-2011)-BET Catch-4th quarter



ICELL(2007-2011)-YFT Catch-1st quarter



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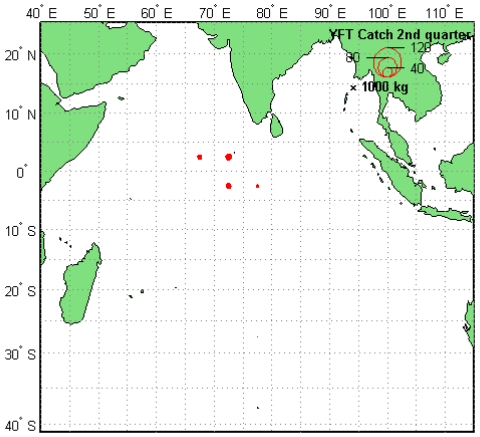
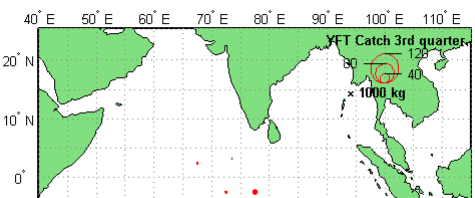


ICELL(2007-2011)-YFT Catch-3rd quarter



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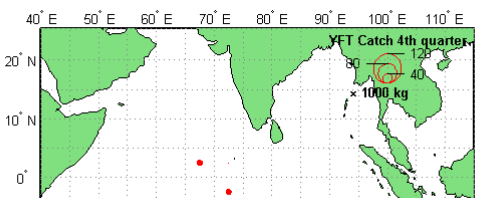
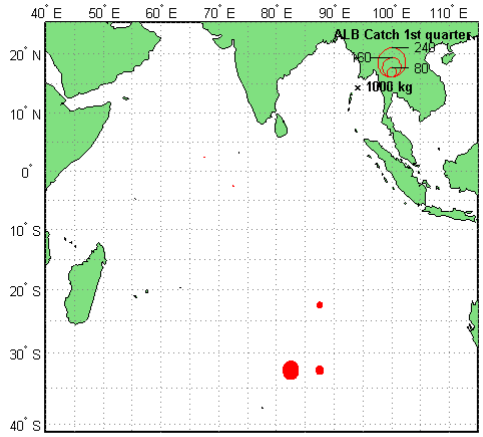


ICELL(2007-2011)-ALB Catch-1st quarter



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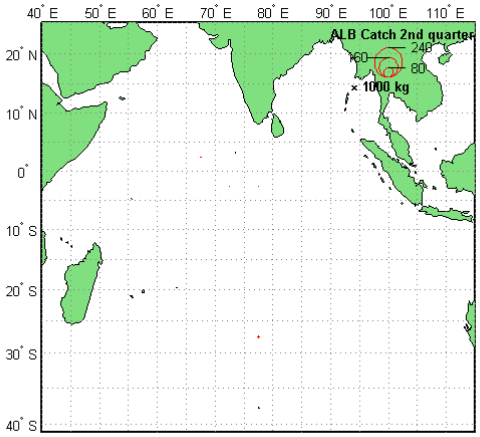

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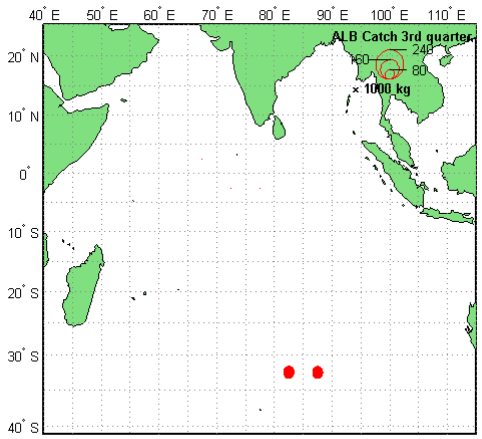

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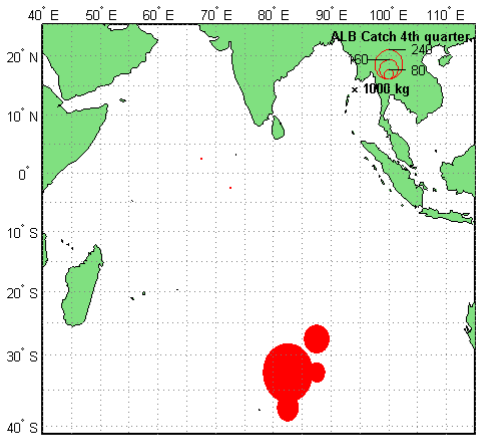
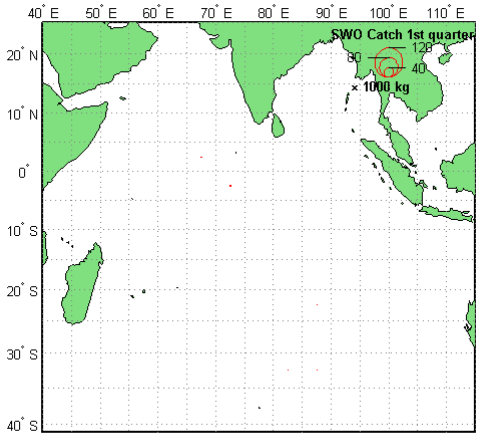


ICELL(2007-2011)-SWO Catch-1st quarter



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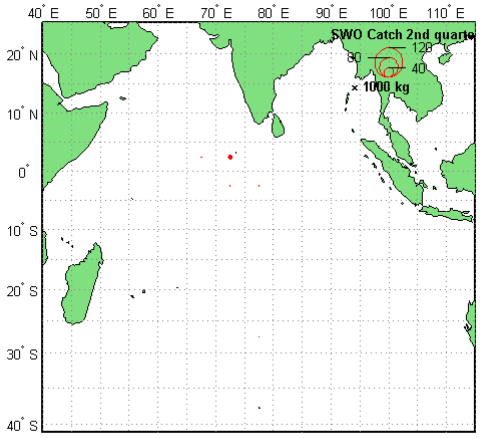
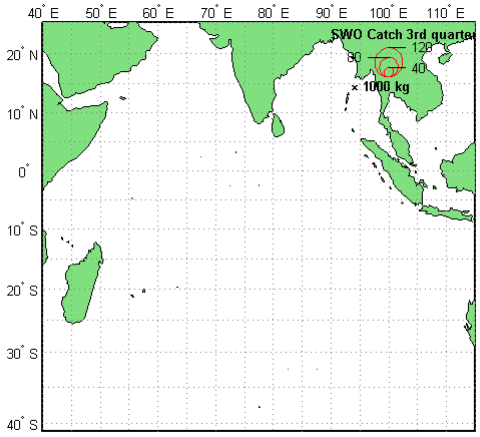
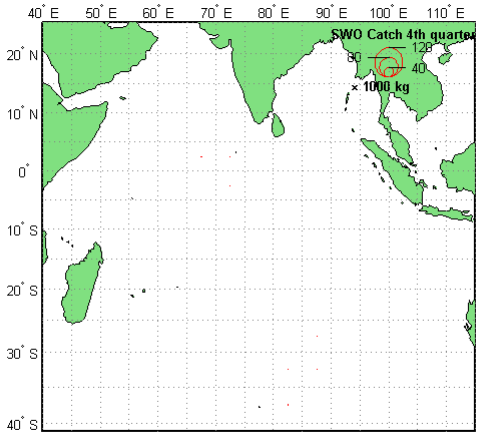


ICELL(2007-2011)-SWO Catch-3rd quarter



ICELL(2007-2011)-SWO Catch-4th quarter



4. RECREATIONAL FISHERY [Mandatory]

No recreational fishing activities.

5. ECOSYSTEM AND BYCATCH ISSUES [Mandatory]

China is making its effort in contribution of data collection for ecosystem and bycatch issues in the Indian Ocean, based on our observer and logbook programs. Scientists and analysts from shanghai Ocean University (SHOU) take a majority of work in China's tropical tuna and bycatch research in the Indian Ocean. Although not conducted yet, national plans of action for sharks and seabirds are under developments. We are also planning an ecological risk analysis for sharks using data from our observer program and other data sources. We have provided scientific data from our observer programs and these data were used for ecological risk analysis for sharks on WPEB08.

5.1 Sharks [Mandatory]

China is developing a national plan of action for sharks. China is also collecting biological and ecological information based on longline observer program. Now, species specific catch and effort data are being recorded in the logbook data collection. However, in consideration of fishermen's poor knowledge in species identification and workload onboard, complete recording for species on the recommended list is hard at least for the current years.

Table 3: Total number and weight of sharks, by species, retained by the national fleet in the IOTC area of competence (for the most recent five years at a minimum, e.g. 2007–2011). **[Mandatory]**

Table 3a Blue shark

Year	Gear	Catch (number)	Catch (kg)
2007	Deep LL	No data	108000
2008	Deep LL	6965	314552
2009	Deep LL	5009	239394
2010	Deep LL	2410	100282
2011	Deep LL	716	31547

Table 3b Blue shark

Year	Gear	Catch (number)	Catch (kg)
2007	ICE LL	No data	4000
2008	ICE LL	452	26743
2009	ICE LL	64	2060
2010	ICE LL	56	1818
2011	ICE LL	58	2529

Table 3c Oceanic whitetip shark

Year	Gear	Catch (number)	Catch (kg)
2007	Deep LL	No data(unclassified)	No data(unclassified)
2008	Deep LL	No data(unclassified)	No data(unclassified)
2009	Deep LL	1346	55839
2010	Deep LL	5125	160026
2011	Deep LL	1044	33559

Table 3d Oceanic whitetip shark

Year	Gear	Catch (number)	Catch (kg)
2007	ICE LL	No data(unclassified)	No data(unclassified)
2008	ICE LL	No data(unclassified)	No data(unclassified)
2009	ICE LL	0	0
2010	ICE LL	7	282
2011	ICE LL	13	501

Table 3e Shortfin mako shark

Year	Gear	Catch (number)	Catch (kg)
2007	Deep LL	Not available	32414
2008	Deep LL	1705	57177
2009	Deep LL	1969	72072
2010	Deep LL	3100	120826

2011	Deep LL	910	34297

Table 3f Shortfin mako shark

Year	Gear	Catch (number)	Catch (kg)
2007	ICE LL	Not available	2341
2008	ICE LL	148	7716
2009	ICE LL	80	3246
2010	ICE LL	47	1996
2011	ICE LL	37	1108

Table 4: Total number of sharks, by species, released/discarded by the national fleet in the IOTC area of competence (for the most recent five years at a minimum, e.g. 2007–2011). Where available, include life status upon released/discard. **[Desirable]**

We are unable to provide estimates of total discard and release status since this information is not routinely recorded in our logbook data.

5.2 Seabirds [Mandatory]

Most of China tuna longline vessels are operating in the tropical areas of IOTC waters and there are no interactions with seabirds. No seabird mortality was observed by China tuna longline fleet, which was confirmed by national observer programme. For a few number of vessels operated in the south of 25° S, mitigation measures were implemented according to the management measures.

5.3 Marine Turtles [Mandatory]

The observer is responsible for recording species specific interactions of marine turtles in longline fisheries, including number of caught, fate, and release status. No national plan of action for marine turtles is under development. No sea turtle was reported to be incidentally caught by Chinese longline vessels in 2011.

5.4 Other ecologically related species (e.g. marine mammals, whale sharks) [Desirable]

The observer is responsible for recording species specific interaction of marine mammals in longline fisheries, including number of caught, fate, and release status. No national plan of action for marine turtles is under development.

Table 5. Observed annual catches of species of special interest by species (seabirds, marine turtles and marine mammals) by gear for the national fleet, in the IOTC area of competence (for the most recent five years at a minimum, e.g. 2007–2011 or to the extent available). **[Mandatory]**

Table 5a Marine turtles

Year	Gear	Species	Catch (number)	Species	Catch (number)
2006	Deep LL		No mortality		
2007	Deep LL		No mortality		
2008	Deep LL		No mortality		
2009	Deep LL		No mortality		
2010	Deep LL		No mortality		
2011	Deep LL		No mortality		

Table 5b Marine turtles

Year	Gear	Species	Catch (number)	Species	Catch (number)
2006	ICE LL		No mortality		

2007	ICE LL		No mortality		
2008	ICE LL		No mortality		
2009	ICE LL		No mortality		
2010	ICE LL		No mortality		
2011	ICE LL		No mortality		

Table 5c Marine mammals

Year	Gear	Species	Catch (number)	Species	Catch (number)
2006	Deep LL		No mortality		
2007	Deep LL		No mortality		
2008	Deep LL		No mortality		
2009	Deep LL		No mortality		
2010	Deep LL		No mortality		
2011	Deep LL		No mortality		

Table 5d Marine mammals

Year	Gear	Species	Catch (number)	Species	Catch (number)
2006	ICE LL		No mortality		
2007	ICE LL		No mortality		
2008	ICE LL		No mortality		
2009	ICE LL		No mortality		
2010	ICE LL		No mortality		
2011	ICE LL		No mortality		

6. NATIONAL DATA COLLECTION AND PROCESSING SYSTEMS [Mandatory]

6.1. Logsheet data collection and verification (including date commenced and status of implementation)

The pilot logbook data submission system of China started in 2005 in order to obtain more detailed information about catch and fishing effort as required by the IOTC Secretariat. In 2006 the Fisheries Bureau, Ministry of Agriculture, required all fishing boats to fill logbook and announced that implementation of logbook work would be considered as one of the main factors for renewing the fishing permission and licenses. Under the support of China Overseas Fisheries Association (COFA) and cooperation of the tuna fishing companies, China's logbook system has been carried out smoothly as a normal data collection work. Since 2009, 100% logbook coverage for the longline fishery has been carried out. So far about 80% of the logbooks have been returned to SHOU by the Bureau of Fisheries. All the information of those logbooks is being processed at SHOU.

6.2. Vessel Monitoring System (including date commenced and status of implementation)

All the Chinese longline vessels operating in the Indian Ocean have been equipped with VMS system.

6.3. Observer programme (including date commenced and status; number of observer, include percentage coverage by gear type)

Under authorization by the Bureau of fisheries, Ministry of Agriculture, the SHOU has been in charge of the national tuna observer program in the Pacific Ocean, Atlantic Ocean and Indian Ocean. China began to implement tuna Scientific Observer programme in IOTC in 2002. So far, the program has been carried out normally under the fully cooperation of COFA. Observers have been dispatched each year since then. However, no observers were sent (the observer has been selected and trained) for the year 2011, due to the piracy issue. Graduate students majoring in marine fisheries science & technology, marine fisheries resources from SHOU are chosen to take the task as scientific observers.

Table 6. Annual observer coverage by operation, e.g. longline hooks, purse seine sets (for the most recent five years at a minimum, e.g. 2007–2011 or to the extent available). **[Mandatory]**

Year	Gear	Hooks deployed	Number of observers	Hooks observed	Coverage (%)
2007	Deep LL	27,643,505	2	Data to be recovered	Data to be recovered
2008	Deep LL	22,215,000	2	Data to be recovered	Data to be recovered
2009	Deep LL	14,417,000	2	Data to be recovered	Data to be recovered
2010	Deep LL	15,304,660	1	153,000	1.0
2011	Deep & ICE LL	0	0	0	0

Figure 4. Map showing the spatial distribution of observer coverage. **[Mandatory]**

No observer was sent to Indian Ocean for 2011.

6.4. Port sampling programme [including date commenced and status of implementation]

China has set up a port sampling program in early 2012. The program was designed for vessels which return and upload catch in domestic ports.

Table 7. Number of individuals measured, by species and gear] **[Mandatory]**

Data from port sampling program is still being collected and processed at SHOU, will be provided to IOTC next year.

6.4. Unloading/Transhipment [including date commenced and status of implementation] **[Mandatory]**

The transhipment of main species from China fleet in the Indian Ocean in 2011 was shown in **Table 8**

Table 8 Transhipment of China fleet in 2011

Transhipment at sea (kg)

Transhipment date	Bigeye Tuna	Yellowfin Tuna	MLS	Swordfish
20/01/2011	50600	7700	990	3800
19/01/2011	68000	20000	2000	3000

No Transhipment at port.

7. NATIONAL RESEARCH PROGRAMS [Desirable]

China has launched a couple of domestic research projects regarding tuna fisheries and stock status of key species in the Indian Ocean, which are funded by China government and undertaken by SHOU. **Table 9** shows a representative project. Besides of these specific projects, scientists from Shanghai Ocean University are collecting and analyzing biological and size composition data based on national longline observer program.

Table 9. Summary table of national research programs, including dates.

Project title	Period	Countries involved	Budget total	Funding source	Objectives	Short description
Stock assessment and risk analysis of bigeye tuna in the IO	2012-2014	China		Innovation Program of Shanghai Municipal Education Commission, China	Test alternative management strategies and quantify stock risk to these strategies	

IMPLEMENTATION OF SCIENTIFIC COMMITTEE RECOMMENDATIONS AND RESOLUTIONS OF THE IOTC RELEVANT TO THE SC. [Mandatory]

Table 10. Respond with progress made to recommendations of the SC and specific Resolutions relevant to the work of the Scientific Committee [to be updated annually to include most recent Conservation and Management Measures adopted by the Commission].

Res. No.	Resolution	Scientific requirement	CPC progress
05/05	Concerning the conservation of sharks caught in association with fisheries managed by IOTC	Paragraphs 1–12	Paragraph 1- China is improving its species specific data collection in logbook task, also is trying to make reliable bycatch estimates for commonly captured sharks. Paragraph 2- Research plan was developed. Stock assessments not conducted yet. Paragraph 3- China is encouraging full utilisation of sharks captured by all longline vessels operation in the IOTC areas. Paragraph 4- The 5 % ratio strategy was being implemented on China longline vessels. Paragraph 5- The 5 % ratio strategy was not fully reviewed by China. Paragraph 6- China is making effort to reduce finning activity on board tuna vessel. Paragraph 7- non-valuable sharks captured (e.g. crocodile shark) are discarded (most alive). Paragraph 8- circle hook experiments were conducted by researchers in Shanghai Ocean University Paragraph 9- China is making effort to collect biological (in particular reproductive info.) data through its observer program, to study reproduction of commonly captured sharks. However, sample size from IO was small, compared with the Pacific Ocean. Paragraph 10- The commission has provided assistances such as species identification and observer training guideline for China. Paragraph 11- no response Paragraph 12- no response
10/02	Mandatory statistical requirements for IOTC members and cooperating non contracting parties	Paragraphs 1–7	Paragraph 1- China has submitted required data to the secretariat. Paragraph 2- China has provided total catch by species and gear for tunas, billfishes, three shark species (BSH, SMA, OCS), and others. Paragraph 3- China has provided catch and effort by species and gear (Deep LL and Ice LL) for tunas, billfishes, three shark species (BSH, SMA, OCS), and others, by 5° grid area and month strata. Paragraph 4- China has provided size data for BET and ALB captured by LL. These size data are based on individual weight data in logbooks. China has no size data from observer trip for 2011 since no observer was sent out to work due to piracy issue. Paragraph 5- No response. Paragraph 6- Data has been submitted before deadline.

Res. No.	Resolution	Scientific requirement	CPC progress
			Paragraph 7- No response.
10/06	On reducing the incidental bycatch of seabirds in longline fisheries.	Paragraphs 3–7	Paragraph 3- All Chinese longliners operating in the Indian Ocean are equipped with bird scaring lines (Measure in Column A), and longliners fishing in the south of 25° S are required to make their bird scaring lines work during the whole operating period. Offal discharge control (Measure in Column B) is the second measure that has been implemented for fishing south of 25° S. Paragraph 4- The measure has been implemented (Bird-scaring lines). Paragraph 5- Two measures used by Chinese longliner, the Bird-scaring lines and Offal discharge control, conformed to minimum technical standards in Annex 1. Paragraph 6- The design and deployment for bird scaring lines meet the specifications provided in Annex 2. Paragraph 7- Information on interactions with seabirds has been reported.
11/04	On a regional observer scheme	Paragraph 9	Paragraph 9- This information has been included in this report.
12/03	On the recording of catch and effort by fishing vessels in the IOTC area of competence	Paragraphs 1–9	Paragraph 1- All Chinese fishing vessels are subject to data recording system of IOTC. Paragraph 2- The measure applies to all Chinese fishing vessels. Paragraph 3- Logbooks being used onboard now record bycatch species, but not consistent with the species list in the Annex. So, we are planning to revise the logbook forms accordingly. Paragraph 4- Implemented as required. Paragraph 5- Implemented as required and our logbook system are being revised. Paragraph 6- No handline and trolling fisheries. Paragraph 7- No fishing by Chinese vessels inside coastal states' EEZ. Paragraph 8- China will implement this requirement accordingly. Paragraph 9- No fishing by Chinese vessels inside coastal states' EEZ.
12/04	On the conservation of marine turtles	Paragraphs 3, 4, 6–10	Paragraph 3- Interactions with marine turtles have been recorded and reported. Paragraph 4- Interactions with marine turtles have been recorded and reported. Paragraph 6- Fishermen are required to help recover marine turtle captured and release. De-hooking techniques and guideline have been equipped onboard fishing vessels. Paragraph 7- No gillnet fishery. Paragraph 8- Line cutters and de-hookers are in place onboard longliner. The fishing operators are required to hand and promptly release marine turtles caught or entangled, in accordance with IOTC Guidelines. Marine Turtle Identification Cards will be distributed among fleet. Paragraphs 9- Most of baits used are finfish bait. Paragraph 10- Incidents involving marine turtles during fishing operations are required to be recorded in logbooks and reported to SHOU.

Res. No.	Resolution	Scientific requirement	CPC progress
12/09	On the conservation of thresher sharks (family alopiidae) caught in association with fisheries in the IOTC area of competence	Paragraphs 4–8	Paragraph 4- Fishermen are encouraged to record and report incidental catches of thresher sharks in logbooks. Paragraph 5- No recreational and sport fishing. Paragraph 6- This kind of information are required in observer program and will be provided for study. Paragraph 7- Specific project or biological sampling for tissues (vertebrae, tissues, reproductive tracts, stomachs, etc.) was not set up for thresher sharks by now. But we will include this task in future's observer work. Paragraph 8- Shark catch data will be recorded and reported as required by IOTC data reporting procedures.

8. LITERATURE CITED [Mandatory]

No literature cited.