[China] National Report to the Scientific Committee of the Indian Ocean Tuna Commission, 2014

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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 2013 final data for the 2012 calendar year must be provided to the Secretariat by 30 June 2013)	Not applicable
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 2013, preliminary data for the 2012 calendar year was provided to the Secretariat by 30 June 2013). **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 2013, final data for the 2012 calendar year must be provided to the Secretariat by 30 December 2013).	YES 29/06/2014
If no, please indicate the reason(s) and intended actions:	

Executive Summary [Mandatory]

Deep-frozen longline and ice fresh-longline are the only two fishing gears used by Chinese vessels to catch tuna and tuna-like species in the IOTC waters. The number of active deep-frozen longline vessels increased from 10 in 2011 to 31 in 2013, while the number of ice-fresh longline vessels kept at five. Chinese longline fleet caught 5233 MT of tropical tunas (BET and YFT) in 2013, which is higher than the catch in 2012(2943 MT). The albacore tuna catch in 2013 was 1011 MT, which is lower than the catch in 2012 (1835 MT). Implementation of both the logbook and observer programs is going on for the Chinese longline fleet in the Indian Ocean. Catch and effort data collection of bycatch species have been improved. One scientific observer was dispatched in 2013 and the trip report has been submitted.

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 originally operated along China coastal waters. After 1998 the number of fishing boats began to reduce 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 down to 63 in 2002. The number of fishing boats active reduced from 46 in 2008 to 32 in 2009 due to the piracy activity, of which 27 belongs to the large-size deep-frozen longliners. Before 2008 the deep-frozen tuna longliners usually operated in waters between 40 ºE ~ 90ºE and 20ºN ~ 40ºS. Since 2009, most of the deep-frozen fishing effort shifted to southern Indian Ocean owing to piracy effect. The number of deep-frozen longliners was 15 and 10 in 2010 and 2011, respectively. In 2012, however, more deep-frozen longliners came back to tropical western Indian Ocean and reached a total of 36 in the number of active longline vessels. The current number of active longline vessels kept at 36.

2. FLEET STRUCTURE [MANDATORY]

The Chinese tuna fleet consisted of deep frozen longliners (Deep LL) and ice fresh longliners (Ice LL) in the Indian Ocean. The fleet structure was shown in **Table 1**. The number of deep frozen longliners has returned to the lever of 2008, while the number of Ice-fresh longliners kept at five since 2009.

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
2012	Deep LL	GRT over 400	31

	Ice LL	GRT 200- 400	5
2013	Deep LL	GRT over 400	31
	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**. In 2013, more deep frozen longliners returned to target bigeye tuna. The Deep LL effort (hooks deployed) in 2013 was 173% higher than that in 2012. The Ice LL effort in 2013 was 13% lower than that in 2012.

Table 2. Annual catch and effort by gear and primary species in the IOTC area of competence**. [Mandatory]**

Table 2a 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
2012	Deep LL	7310	7
2013	Deep LL	19992	18

Table 2b 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
2012	ICE LL	3985	1828
2013	ICE LL	3447	993

Table 2c 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
2012	Deep LL	7310	2404
2013	Deep LL	19992	4274

Table 2d 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
2012	ICE LL	3985	1
2013	ICE LL	3447	37

Table 2e 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
2012	Deep LL	7310	308
2013	Deep LL	19992	669

Table 2f 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
2012	ICE LL	3985	230
2013	ICE LL	3447	253

Table 2g 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
2012	Deep LL	7310	204
2013	Deep LL	19992	562

Table 2h 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
2012	ICE LL	3985	<1
2013	ICE LL	3447	6

Table 2i 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
2012	Deep LL	7310	89
2013	Deep LL	19992	226

Table 2j 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
2012	ICE LL	3985	<1
2013	ICE LL	3447	<1

Table 2k 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
2012	Deep LL	7310	58
2013	Deep LL	19992	170

Table 2l 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
2012	ICE LL	3985	<1
2013	ICE LL	3447	<1

Table 2m 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
2012	Deep LL	7310	9
2013	Deep LL	19992	10

Table 2n 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
2012	ICE LL	3985	3

2013	ICE LL	3447	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]**

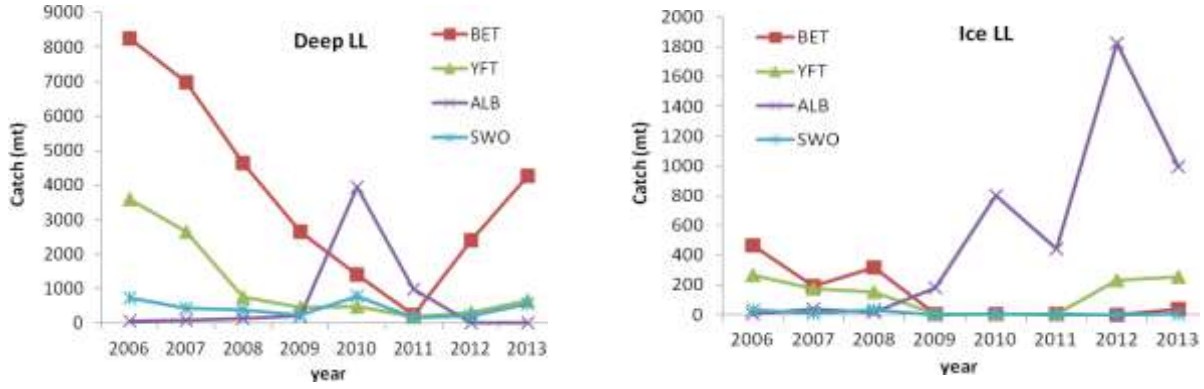


Figure 2a. Map of the distribution of fishing effort, by gear type for the national fleet in the IOTC area of competence (most recent year e.g. 2013). [Mandatory]

Deep-frozen LL 2013 **Ice-fresh LL 2013**

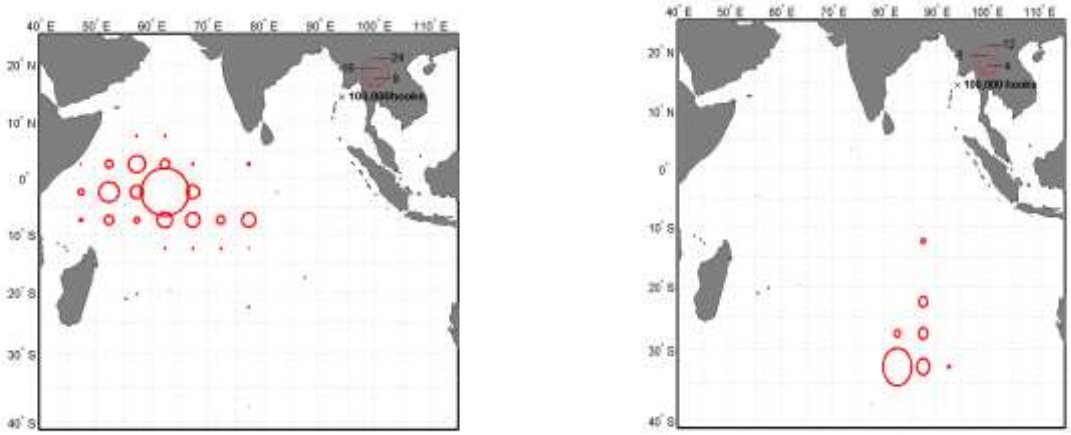


Figure 2b. Map of the distribution of fishing effort, by gear type for the national fleet in the IOTC area of competence (average of the 5 previous years e.g. 2009–2013). **[Mandatory]**

Deep-frozen LL 2009-2013 **Ice-fresh LL 2009-2013**

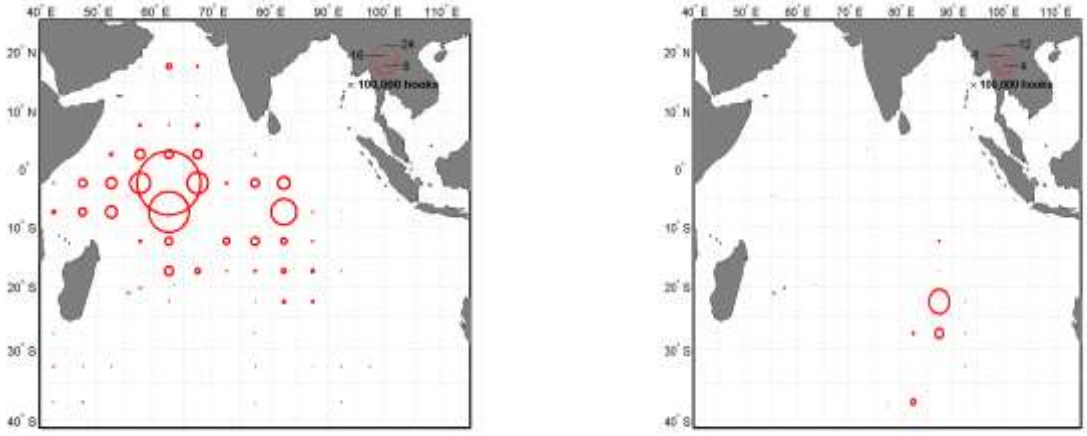
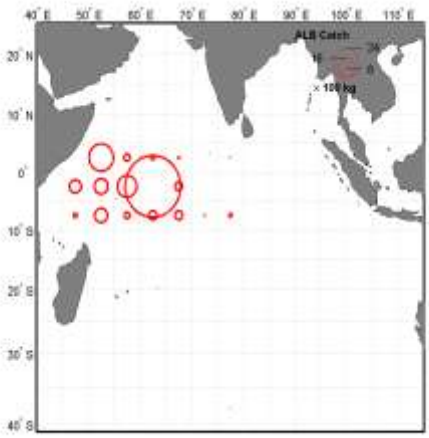
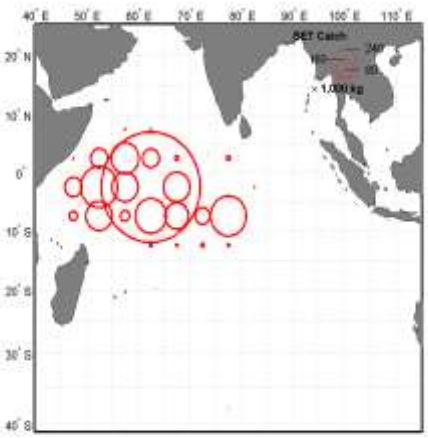


Figure 3a. Map of distribution of fishing catch, by species for the national fleet, in the IOTC area of competence (most recent year e.g. 2013). **[Mandatory]**

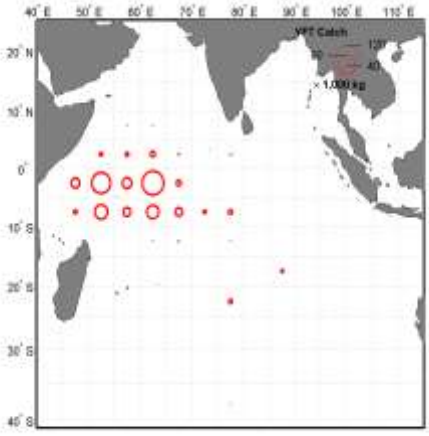
Deep-frozen ALB 2013



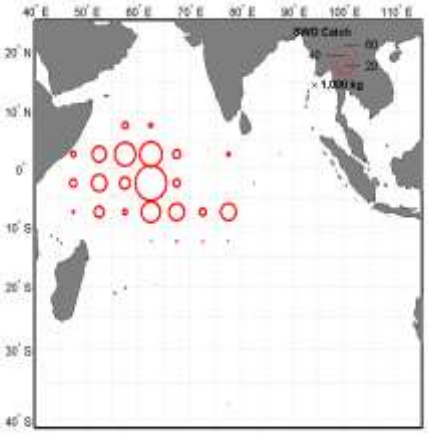
Deep-frozen BET 2013



Deep-frozen YFT 2013

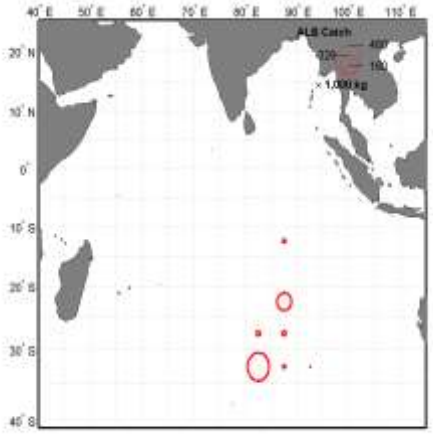


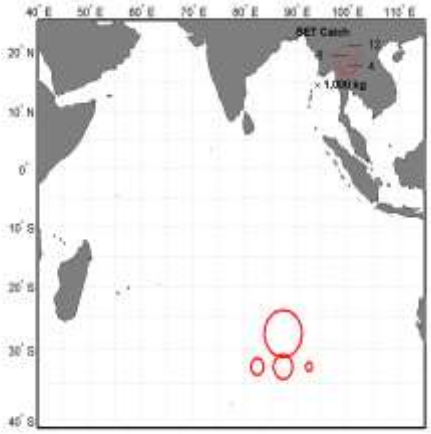
Deep-frozen SWO 2013



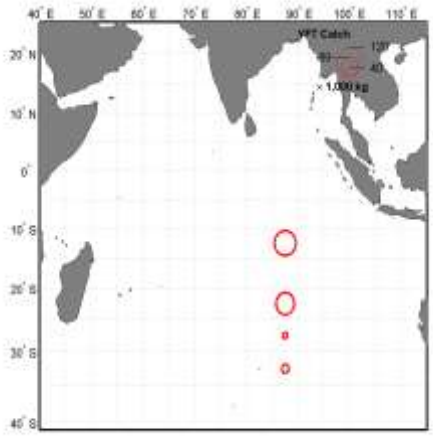
Ice-fresh ALB 2013

Ice-fresh BET 2013





Ice-fresh YFT 2013



Ice-fresh SWO 2013

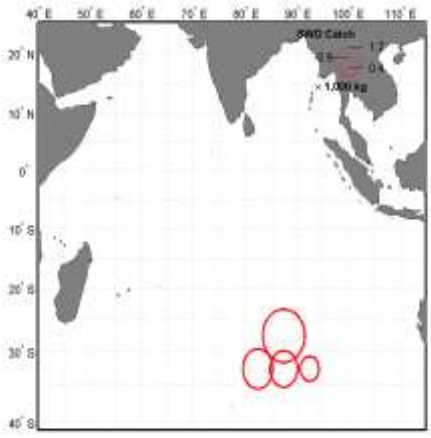
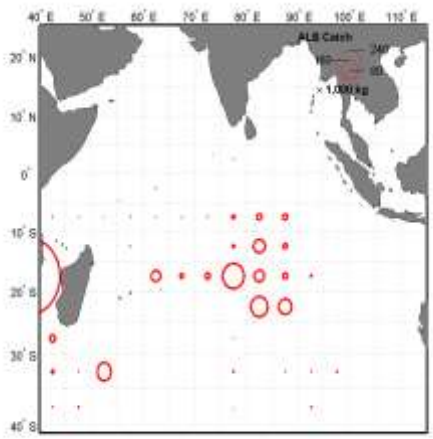
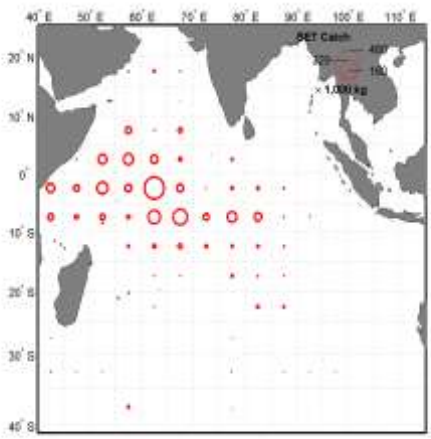


Figure 3b. Map of distribution of fishing catch, by species for the national fleet, in the IOTC area of competence (average of the 5 previous years e.g. 2009–2013). **[Mandatory]**

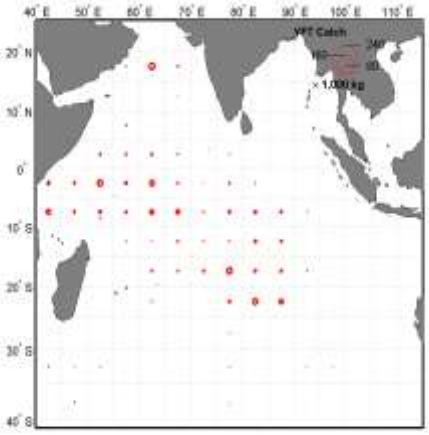
Deep-frozen ALB 2009-2013



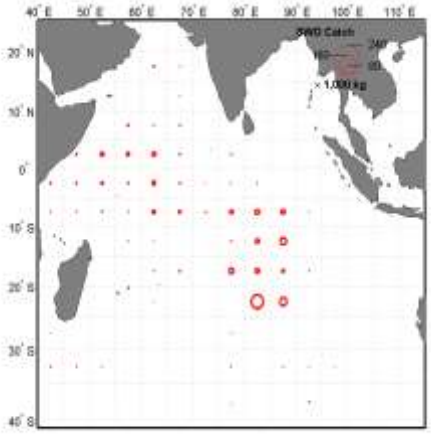
Deep-frozen BET 2009-2013



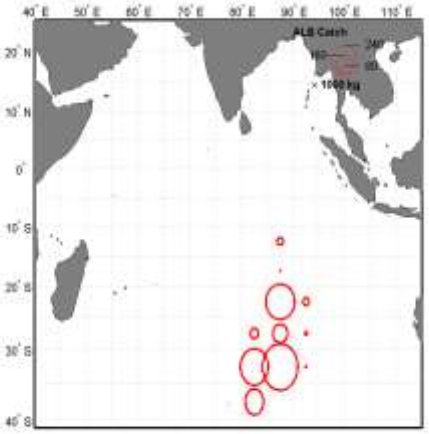
Deep-frozen YFT 2009-2013



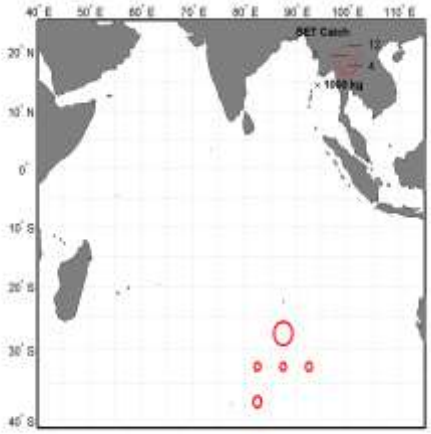
Deep-frozen SWO 2009-2013



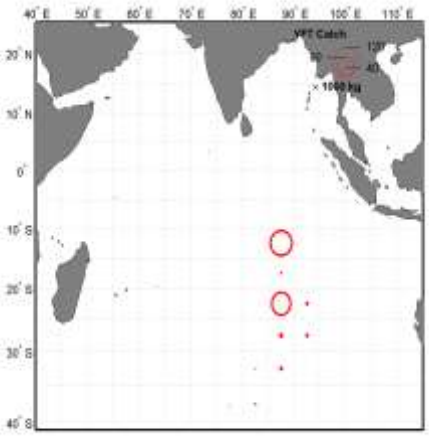
Ice-fresh ALB 2009-2013



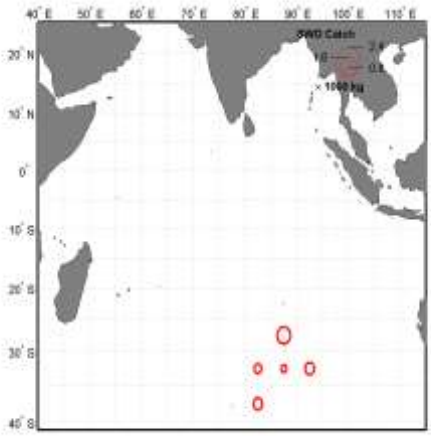
Ice-fresh BET 2009-2013



Ice-fresh YFT 2009-2013



Ice-fresh SWO 2009-2013



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 biological study for sharks on WPEB10. In accordance with various management resolutions, China is now enhancing its management and conservations measures for important bycatch species (i.e. sharks, seabirds and marine mammals).

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 species on the recommended list is hardly finished for them at least for the current years. And in this year, Key sharks species Poster were sent to each vessel to facilitate fisherman to identify shark species. With the development of species identification cards and manuals, this issue will be solved in the near future.

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. 2008–2012). **[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
2012	Deep LL	439	17560
2013	Deep LL	2120	72906

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
2012	ICE LL	1630	48484
2013	ICE LL	1210	48825

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
2012	Deep LL	No data(unclassified)	No data(unclassified)
2013	Deep LL	No data (discarded)	No data (discarded)

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
2012	ICE LL	Not available	7768
2013	ICE LL	No data (discarded)	No data (discarded)

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
2012	Deep LL	132	6004
2013	Deep LL	928	36781

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
2012	ICE LL	9932	66886
2013	ICE LL	1742	63574

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. 2008–2012). Where available, include life status upon released/discard. **[Desirable]**

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

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]

Observers are 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 2013.

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

Observers are 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)
2008	Deep LL		No mortality		
2009	Deep LL		No mortality		
2010	Deep LL		No mortality		
2011	Deep LL		No mortality		
2012	Deep LL		No mortality		
2013	Deep LL		No mortality		

Table 5b Marine turtles

Year	Gear	Species	Catch (number)	Species	Catch (number)
2008	ICE LL		No mortality		
2009	ICE LL		No mortality		
2010	ICE LL		No mortality		
2011	ICE LL		No mortality		
2012	ICE LL		No mortality		
2013	ICE LL		No mortality		

Table 5c Marine mammals

Year	Gear	Species	Catch (number)	Species	Catch (number)
2008	Deep LL		No mortality		
2009	Deep LL		No mortality		
2010	Deep LL		No mortality		
2011	Deep LL		No mortality		
2012	Deep LL		No mortality		
2013	Deep LL		No mortality		

Table 5d Marine mammals

Year	Gear	Species	Catch (number)	Species	Catch (number)
2008	ICE LL		No mortality		
2009	ICE LL		No mortality		
2010	ICE LL		No mortality		
2011	ICE LL		No mortality		
2012	ICE LL		No mortality		

2013	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)
China started the pilot logbook data submission system in 2005 in order to obtain more detailed information about catch and fishing effort as required by the IOTC. In 2006 the Bureau of Fisheries, Ministry of Agriculture, required that all tuna fishing boats need to fill logbook and return to the Bureau of Fisheries. The Bureau also announced that implementation of logbook work will be considered as one of the main factors for renewing 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 realized. So far about 85% of the logbooks have been returned to SHOU through the Bureau of Fisheries. All the information of those logbooks has entered the national tuna fishery database in SHOU and is being processed by the tuna technical working group at SHOU. Preliminary analysis showed that the data quality of some logbook needs to be further improved.

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 support of COFA. Observers have been dispatched each year since then. No observer was dispatched for the year 2011 due to the piracy activity (the observer has been selected and trained). One observer was sent in 2012 and 2013. Graduate/Senior students majoring in marine fisheries science & technology or 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. 2008–2012 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
2011	Deep & ICE LL	0	0	0	0
2012	Deep LL	11,295,050	1	218,520	2
2013	Deep & ICE LL	23,439,470	1	216,640	1

Figure 4. Map showing the spatial distribution of observer coverage. **[Mandatory]**
Because there was only one observer (one trip) conducted in 2013, here only the observed longline sets were shown (Figure 4). This observer worked on onboard a deep-frozen longliner between October 2013 and February 2014.

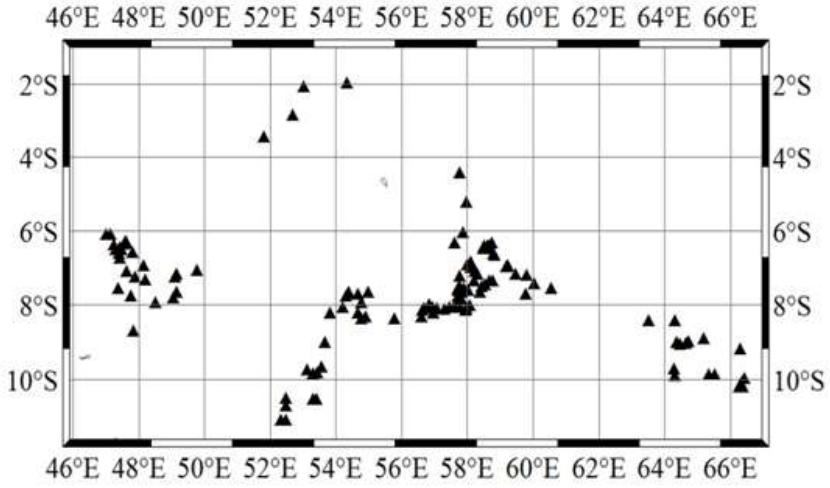


Figure 4 Map showing the observed longline operating sets during the 2013 observer trip

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 unload catch in domestic ports.

Table 7. Number of individuals measured, by species and gear] **[Mandatory]**
In 2013 there was no unloading at China's domestic ports for catch from the Indian Ocean tuna fisheries.

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

Table 8 Transhipment of China fleet in 2013 (at sea and in port)

Date of Transshipment	Species Transhipped at sea (Unit:metic ton)						
	BET	YFT	SWO	MLS	ALB	SHARK	Oth
2013/1/1	86.722	9.17		1.655			
2013/1/2	57.871	7.15		0.28			
2013/1/3	87.934	10.15		0.444			
2013/1/11	77.824	8.233		1.166			
2013/1/12	42.675	14.515		1.291			
2013/2/17	81.799	20.744	6.593	0.892	0.574		
2013/2/7	16.59	2.359	2.089	1.159			
2013/2/7	16.968	3.207	1.935	1.581			
2013/2/8	16.46	4.591	2.761	0.69			
2013/2/8	15.258	1.595	1.844	2.031			
2013/2/9	20.603	2.085	2.185	1.004			
2013/2/9	22.435	1.494	2.182	0.947	2.614	4.358	10.4
2013/2/10	17.235	2.859	4.079	0.988	7.003	1.488	7.66
2013/2/11	32.698	7.054	3.609	0.781	5.172	3.348	9.29
2013/2/11	16.463	1.702	3.582	1.497	2.045	9.788	19.2
2013/2/12	7.209	0.138	0.04	0.036	3.559	13.32	13
2013/2/24		75.5	7.654		47.85		
2013/2/25	14.353	0.613		0.236			
2013/3/21	23.067	4.164	1.008		0.273		
2013/4/12	27.007		7.545				
2013/5/13	0.4873						

2013/7/6	35.945	4.009	18.22	2.682		2.184	6.95
2013/7/6	29.683	4.47	20.69	5.438		1.85	14.9
2013/7/8	27.518	2.732	21.46	3.063		2.2	9.46
2013/7/10	21.145	1.61	33.36	0.379		1.7	10.1
2013/7/11	1.9589		0.2				
2013/7/12	30.176	1.639	20.58	2.597		1.643	11
2013/7/13	28.312	2.089	15.15	1.906		2.385	8.64
2013/7/14	28.396	4.079	23.04	4.183		2.5	15.9
2013/7/15	27.41	4.537	14.96	7.027		2.5	15.2
2013/7/17	51.948	7.763	6.113	2.896			6.51
2013/7/17	51.948	7.763	6.113	2.896			6.51
2013/7/18	70.499	8.627	10.73	2.859			8.24
2013/7/19			13.85				3.98
2013/7/20	55.276	5.424	18.21	2.808			17.7
2013/7/21	101.43	8.346	8.369	2.776			3.48
2013/7/22	72.767	8.873	11.54	4.317			8.45
2013/9/10	16.56		6				
2013/11/20	108.04	7.935					
2013/11/21	99.518	12.133					
2013/11/24	42	6	9	3.113		2.863	7.47
2013/11/24	54	4	10	1.564		2.2	9.8
2013/11/25	42.143	4.841	9.745	2.354		2.2	13.8
2013/11/26	43	3	7	1.723		2.84	8.81
2013/11/26	25	1	2	0.107		0.947	2.28
2013/12/3	37.965	3.497	6.543	1.264		2.8	5.34
2013/12/3	58	7.3	8.5	2.746		2.25	8.28
2013/12/3	40	4	8.8	1.6		1.5	11.4
2013/12/4	37	5.02	5	3		2.6	9.33
2013/12/9	9.792	0.962	11.67	0.862			11.9
2013/12/10	70.732	9.391	7.913	2.316			10.4
2013/12/11	106.52	11.881	7.056	0.869			8.94
2013/12/12	33.305	5.08	2.995	0.512			5.05
2013/12/12	6.906	2.116	8.124	0.421			4.08
2013/12/13	113.43	7.174	10.1	0.489			5.95
2013/12/14	102.37	16.483	14.97	1.663			12.6
2013/12/15	110.55	11.904	9.349	0.543			10.9

Date of Transhipment	**Port Name**	**Species Transhipped in port (Unit:metic ton)**						
		BET	**YFT**	**SWO**	**ALB**	**Marlin**	**Sharks**	**Others**
2013/1/8	PORT-LOUIS			4.118				
2013/1/12	INDLAN OCEAN	42.675	14.515			1.291		
2013/2/15	PORT LOUIS	11.147	7.453	1.511		0.383		
2013/2/17	SINGAPORE	81.799	20.744	6.593	0.574	0.892		
2013/2/22	INDLAN OCEAN	1.4368						
2013/4/9	SEYCHELLES	44.524	4.09	0.893				
2013/4/10	SEYCHELLES	45	5.00					
2013/4/13	VICTORIA	39.888	3.635			0.721		
2013/4/22	VICTORIA	48	12.000					
2013/4/22	VICTORIA	30.151	4.754	3.335		1.788	2.9	17.299
2013/4/24	VICTORIA	31.685	5.925	3.571		2.215	0.6	25.605
2013/4/22	VICTORIA	26.727	3.218	2.995		2.876	1.805	9.4
2013/4/24	VICTORIA	21.035	6.186	2.074		2.384	4	3.891
2013/4/23	VICTORIA	38.241	6.068	3.101		2.932	2.9	22.505
2013/4/25	VICTORIA	23.928	5.009	3.766		0.71	5	20.341
2013/4/23	VICTORIA	22.582	5.164	3.568		2.153	6	19.868
2013/4/25	VICTORIA	30.207	2.593	4.47		1.228	2	6.776
2013/6/7	SINGAPORE	54.3793	13.380	5.518		4.335		

2013/6/13	SINGAPORE	60.95	20.505	4.885		0.45		
2013/6/13	SINGAPORE			3.801				
2013/6/20	SINGAPORE	73.787	22.87	8.687	0.746	1.226	0.153	4.979
2013/6/28	COLOMBO	65	9.46	5			19.34	
2013/7/6	VICTORIA	72	8.000	32	0.2	12	1.8	1
2013/7/22	PORT LOUIS	44.171	5.255	9.709	0.301	1.934	5.821	12.579
2013/7/22	PORT LOUIS	23.553	4.087	9.084	0.248	0.78	10.241	9.597
2013/7/22	PORT LOUIS	26.154	1.41	9.966	0.57	8.225	9.839	
2013/7/22	PORT LOUIS	58.335	19.14	14.136	0.958	14.169	41.508	
2013/11/11	PORT LOUIS, MAURITIUS			2.6		5.26	15.3	1.85
2013/11/11	PORT LOUIS, MAURITIUS	23.13						
2013/11/11	PORT LOUIS, MAURITIUS	17.14	2.90					

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 Shanghai Municipal Education Commission 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	

8. 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

Res. No.	Resolution	Scientific requirement	CPC progress
			areas. Paragraph 4- The 5 % ratio strategy was being implemented on Chinese 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 activity. Paragraph 5- No response. Paragraph 6- Data has been submitted before deadline. Paragraph 7- No response.
10/06	On reducing the incidental bycatch of seabirds in longline fisheries. **Reminder**: Resolution 12/06 will supersede Resolution 10/06 on 1 July 2014	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

Res. No.	Resolution	Scientific requirement	CPC progress
			been reported.
11/04	On a regional observer scheme	Paragraph 9	Paragraph 9- This information has been included in this report.
13/03	On the recording of catch and effort by fishing vessels in the IOTC area of competence	Paragraphs 1–11	Paragraph 1-All Chinese fishing vessels are subject to data recording system of IOTC. Paragraph 2-This 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 revising the logbook forms accordingly. Paragraph 4-China will submit to the IOTC Executive Secretary by 15 February 2014 a template of its official logbooks. Paragraph 5-China's logbook is published with Chinese and English. Paragraph 6-8. No response. Paragraph 9-China's logbooks are submitted to Shanghai Ocean University which is authorized by the Bureau of fisheries, Ministry of Agriculture. Paragraph 10-China will submit the logbook data, but our current form and data field are not consistent with this measure. Paragraph 11-No response.
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.
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.
14/04	Concerning the IOTC record of vessels authorised to operate in the IOTC area of competence	Paragraphs 2,3,5,7-10,12-16	Paragraph2-China has submitted required registration information to the secretariat for AFVs that are authorised to operate in the IOTC area of competence. Paragraph3-China has submitted an updated template of

Res. No.	Resolution	Scientific requirement	CPC progress
			the official authorisation to fish outside National Jurisdictions with information concerning these ATF. Paragraph5-China has notified the IOTC Executive Secretary of any addition to, any deletion from and/or any modification of the IOTC Record at any time such changes occur. Paragraph7- China takes necessary measures to ensure our AFVs comply with all the relevant IOTC CMMs. Paragraph8- China reviews our AFVs performance yearly and takes necessary punitive actions and sanctions to vessels and owners violating the relevant IOTC CMMs according to our domestic law. Paragraph9-China takes measures to prohibit the fishing for, the retaining on board, the transshipment and landing of tuna and tuna-like species by the vessels which are not entered into the IOTC Record. Paragraph10-China has notified the IOTC Executive Secretary of any factual information showing that there are reasonable grounds for suspecting vessels not on the IOTC Record to be engaged in fishing for and/or transshipment of tuna and tuna-like species in the IOTC area of competence. Paragraph12-China has communicated with the Commission and the other CPCs to develop and implement appropriate measures. Paragraph13-All Chinese fishing vessel carry on board documents issued and certified by the competent authority including license, vessel name, registered port, registered number, international call sign, names and addresses of owners, overall length and engine power. Paragraph14- All Chinese fishing vessels authorised to fish in the IOTC area of competence are marked in accordance with FAO Standard Specification for the Marking Identification of Fishing vessels. Paragraph15- China takes necessary measures to ensure that each gear used by its fishing vessels authorised to fish in the IOTC area of competence is marked appropriately Paragraph16- A bound fishing national logbook has been kept on board the Chinese vessel for a period of at least 12 months.
14/06	On establishing a programme for transhipment by large-scale fishing vessels	Paragraphs 2,4,6,7,9,10,17,19,20	Paragraph2-Chinese LSTVs comply with the required notification obligations when transhipping in port. Paragraph4-China authorised their LSTLV to tranship at sea in accordance with the required procedure. Paragraph6- China has submitted required information to the secretariat for the carrier vessels that are authorised to receive at-sea transhipments from its LSTLVs in the IOTC area of competence. Paragraph7- China has notified the IOTC Executive Secretary of any addition to, any deletion from and/or any modification of the IOTC Record at any time such changes occur. Paragraph9-VMS has been installed and operated onboard Chinese carrier vessels. Paragraph10- China takes the necessary measures to ensure that LSTLVs have obtained prior authorization, notify the required information to China at least 24 hours in advance of an intended transshipment. Paragraph17-All Chinese carrier vessels transhipped at sea have IOTC observers on board. Paragraph19-China takes the Statistical Document

Res. No.	Resolution	Scientific requirement	CPC progress
			programs to ensure the effectiveness of the IOTC CMM. Paragraph20-China has submitted the report to the IOTC Executive Secretary before 15 September 2014.

9. LITERATURE CITED [Mandatory]

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