

**ANNUAL REPORTS RECEIVED LATE**

This addendum contains annual reports received after the deadline (16 October).  
Cet addendum contient les rapports annuels reçues après de la date limite (16 octobre).  
Este addendum incluye los informes anuales recibidos después de la fecha límite (16 octubre).

- **Canada** - Part II text, Part II reporting summary table
- **South Africa** – Full report

ANNUAL REPORT OF CANADA  
RAPPORT ANNUEL DU CANADA  
RESUMEN ANUAL DE CANADA

## Part II (Management Implementation)

### *Section 3: Implementation of ICCAT Conservation and Management Measures*

For bluefin, swordfish, sharks, and the other tunas (bigeye, yellowfin, and albacore) Canada undertakes annual stakeholder consultation and announces management measures prior to the opening of the respective fishing seasons. In most cases, details of management measures and their enforcement are provided on the Departmental website (<http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/ifmp-gmp/index-eng.htm>). These plans are prepared in consultation with the fishing industry and incorporate all relevant ICCAT regulatory recommendations. They are implemented under the *Fisheries Act of Canada*. The necessary ICCAT regulatory recommendations are either specified in the *Atlantic Fishery Regulations* (1985) (made pursuant to the *Fisheries Act*) or are handled as written in fish harvester's Conditions of Licence (issued pursuant to the Fishery (General) Regulations), both of which are legally binding on fishermen.

#### *3.1. Catch limits and minimum sizes*

*3.1.1 Bluefin tuna.* Canada has implemented the ICCAT regulatory recommendations that apply to bluefin tuna in the Canadian Atlantic Integrated Bluefin Management Plan. The 2015 quota was set at 528.88t (see 1.1 above), and no person shall have in their possession any bluefin weighing less than 30 kg. In addition, Canada has limited entry into the fishery; and restrictions on the amount and type of gear used, vessel replacement, management fishing areas, and licence transfer requirements. A multi-year management plan for bluefin tuna was last published in 2007 and continues to be in force with annual amendments implemented to meet ICCAT obligations. A new Integrated Fisheries Management Plan is currently being written with a more integrated approach.

*3.1.2 Swordfish.* Canada has implemented the ICCAT regulatory recommendations that apply to swordfish in the 2013 updated Canadian Atlantic Integrated Swordfish Management Plan. The 2015 adjusted quota was set at 1348t (see 1.2 above), and there continued to be a prohibition on the taking and landing of swordfish less than 25 kg in round weight, and/or less than 125 cm LJFL (with 15% tolerance). In 2002, a restructuring of the fleet, through the implementation of individual transferable quotas gave more control in managing the quota. From 1998 - 2009, landings of fish <119 cm LJFL were reduced to as close to zero as possible.

#### *3.1.3 Other Tunas.*

In 1998-1999, the first Canadian Atlantic Integrated Fishery Management Plan was issued for bigeye, yellowfin and albacore. Measures adopted in that plan remained in effect through 2013. A multi-year management plan was approved in 2013 for both swordfish and other tunas and is available upon request. Fishing effort is restricted by limiting entry into the directed fishery to vessels having a swordfish/other tunas longline licence and to one offshore vessel with an "other tunas" longline licence. No person shall have in their possession any bigeye or yellowfin weighing less than 3.2 kg.

#### *3.2. Closed seasons*

*Swordfish.* In addition to the ICCAT regulatory recommendations, Canada has limited entry into the fishery, strict bycatch provisions, time-area closures to minimize bycatch, and gear restrictions. In an effort to protect large (spawning stock) swordfish, the industry initiated a closure of a substantial portion of the Scotian Shelf to harpoon gear, for the past several years from early autumn to the end of the season.

### *3.3. Observer programs.*

Canada has had an excellent independent Observer Program in place since 1977. Independent third party observers collect biological data, and monitor compliance with fishing regulations. In 2013, as part of the Bycatch Management Project the observer coverage level was maintained at approximately 5% (by sea days fished) on the pelagic longline fleet fishing for swordfish and other tunas. Data from the Observer Program are used to estimate dead discards, and document incidental catch of non-target species.

### *3.4. Vessel Monitoring.*

Currently the fishery is mainly prosecuted by vessels less than 20 meters. Most fishing is conducted within the 200 mile zone. In line with the recommendation adopted by ICCAT, all vessels greater than 20 meters are equipped with VMS systems. In addition all Canadian large pelagic vessels, regardless of length, are required by condition of licence to use VMS when fishing with longline gear.

### *3.5. Inspection Schemes and Activities.*

Canada has a Port Inspection Scheme that is consistent with the ICCAT Regulatory Recommendation that entered into force on 13 June 1998 (see section 4).

### *3.6. Measures to ensure effectiveness of ICCAT Conservation and management measures and to prohibit Illegal, Unreported and Unregulated fisheries.*

Canada participates in the Statistical and Catch Document Programs for bluefin tuna, swordfish and bigeye. Programs for swordfish and bigeye tuna were introduced in 2003 for all exports.

Prior to the implementation of the ICCAT Bluefin Tuna Statistical Document Program, Canada developed a system of uniquely numbered tags to be attached to all bluefin tuna landed in Canada so that the origin of all Canadian harvested bluefin can be tracked right to the marketplace. Since 1995, it has tracked the utilization of these tags through a computerized system and can cross reference data from this system with the information on the Bluefin tuna catch documents. Statistical Document Programs for swordfish and bigeye use government accredited organizations to validate export documents.

The commercial Bluefin tuna fishery is also subject to 100% dockside monitoring for all landed fish. No tuna can be offloaded from a vessel unless a certified Dockside monitor is present. The dockside monitor must verify information that includes: the weight of the fish, tag number, vessel, gear, etc)

### *3.7. Other Recommendations.*

In early 2013, Canada released a Policy on Managing Bycatch (<http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/bycatch-policy-prise-access-eng.htm>) to further improve the management of bycatch in Canadian fisheries, where necessary, by building on the success of existing management practices. As a general rule, the Policy applies to that portion of the retained catch for which the harvester was not licensed, but that he/she may or must retain. It also applies to all non-retained catch, including birds, marine mammals and sea turtles that become entangled in fishing gear. This Bycatch Policy is consistent with the *Food and Agriculture (FAO) International Guidelines for Bycatch Management and Reduction of Discards* adopted in early 2011.

In line with commitments at the FAO, Canada released its National Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries in 2007. As noted in that Plan, there are no significant issues related to seabird bycatch in Canadian longline fisheries. In July 2012, Canada provided a Progress Report on the Implementation of Key Actions Taken Pursuant to this National Plan of Action (from March 2007).

The pelagic longline fleet participated in a de-hooking certification course for turtles in 2007 with a second training and certification program being conducted in March 2011 on the proper use of safe handling and release equipment and data recording protocols. This training is mandatory requirement for vessel operators/licence holders.

Details on Canadian interactions with both seabirds and sea turtles for the years 2001 to 2015 has been provided with Task data in July 2016.

### ANNUAL REPORT PART II, SECTION 3

SUBMITTED BY [CPC]: Canada

Category	N°	Information required	Response
GEN	0001	Annual Reports (Commission)	All scientific and compliance reporting requirements have been met through either the submission of Task data, Compliance table, the National Report or other specific reports. Canada has submitted its National Report, Document 07-2014 in line with the Revised Guidelines for the Preparation of Annual Reports.
GEN	0002	Report on implementation of reporting obligations for all ICCAT fisheries, including shark species	Canada has submitted all of the applicable reporting requirements. Dates of submission are noted below where applicable.
GEN	0003	ICCAT Compliance Reporting Table	Submitted (15/09/2016)
GEN	0004	Vessel Chartering - summary report	Not applicable. Canada did not charter any vessels.
GEN	0005	Vessel Chartering - arrangements and termination	Not applicable. Canada did not charter any vessels.
GEN	0006	Transshipment reports (at sea or in port)	Not applicable. Canada does not permit transshipment.
GEN	0007	Transshipment declaration (at sea)	Not applicable. Canada does not permit transshipment.
GEN	0008	Carrier Vessels authorised to receive transshipment of tuna and tuna-like species in the Atlantic Ocean and any subsequent modifications	Not applicable. Canada does not permit transshipment.
GEN	0009	LSPLVs which are authorised to tranship to carrier vessels in the Atlantic Ocean and any subsequent modifications	Not applicable. Canada does not permit transshipment.
GEN	0010	Points of contact for port entry notifications and contact points for receiving copies of Port Inspection reports	No change
GEN	0011	List of designated ports into which foreign fishing vessels may request entry	No change
GEN	0012	Notification period required for entry into port of foreign fishing vessels	No change
GEN	0013	Copies of port inspection reports	Not applicable. As noted in Canada's National Report, no foreign vessels landed catch from ICCAT managed species in Canadian ports.
GEN	0014	Copies of port inspection reports containing apparent infringements	Not applicable
GEN	0015	Action taken following port inspection if apparent infringement is found	Not applicable
GEN	0016	Notification of results of investigation of apparent infringements following port inspection	Not applicable
GEN	0017	Information of bilateral arrangement for Port Inspection	Not applicable

Category	N°	Information required	Response
GEN	0018	Access Agreements and changes	Not applicable, no access agreements.
GEN	0019	Summary of activities carried out pursuant to access agreements, including all catches	Not applicable, no access agreements.
GEN	0020	List of vessels 20 metres or greater	No change from previous year
GEN	0021	Vessels 20 m or greater internal actions report	No changes from previous year
GEN	0022	<i>Redundant</i>	
GEN	0023	Techniques used to manage sport and recreational fisheries	<p>There are no sport or recreational fisheries for Bluefin tuna however, some commercial inshore bluefin tuna fleets have incorporated charter boat catch and release fisheries into their annual management plan. Estimates of mortalities from tagging studies and the catch and release charter boat fishery are reported to the SCRS for assessment purposes.</p> <p>Charter boat fisheries can only be undertaken by commercial harvesters with specific limitations on participation, the number of fish which can be hooked, mandatory reporting of all fish hooked fish and bycatch. The fishery is undertaken with limited seasons, limits on the number of vessels participating, limits on the number of rods, gear strength and fight times to maximize the survival of released fish. A scientifically based expected mortality rate for hooked fish is used and the expected mortality is accounted for under the Canadian quota and is reported in Canada's National Report.</p> <p>There are also 2 catch and retain tournaments (Wedgeport and NSITT) and 1 catch release tournament (PEI) and all landings are counted for against the Canadian quota</p> <p>While there is a recreational/sport fishery for sharks, this fishery is primarily catch-and-release with retention only being authorized where fishing takes place in the context of a federal government-authorized shark derby, with specific research-related protocols. Any sharks retained in a derby fishery are reported in Canada's National Report.</p>
GEN	0024	Vessels involved in IUU Fishing	Not applicable
GEN	0025	Comments on IUU allegations	Not applicable
GEN	0026	Trade Measures Submission of import and landing data	Not applicable
GEN	0027	Data on non-Compliance	Not applicable
GEN	0028	Findings of investigations in relation to allegations of non-compliance	Not applicable
GEN	0029	Vessels sightings	Not applicable – no sightings
GEN	0030	Actions taken with regard to reports of vessel sightings	Not applicable – no sightings
BFT	1001	Bluefin tuna farming facilities	Not applicable. From Rec. 10-04 - Canada does not participate in the EBFT fishery.
BFT	1002	Bluefin tuna farming reports	Not applicable. From Rec. 10-04 - Canada does not participate in the EBFT fishery.
BFT	1003	Carry over of caged fish	Not applicable. From Rec. 10-04 - Canada does not participate in the EBFT fishery.

Category	N°	Information required	Response
BFT	1004	Bluefin tuna caging declaration	Not applicable. From Rec. 10-04 - Canada does not participate in the EBFT fishery.
BFT	1005	Bluefin tuna traps	Not applicable. From Rec. 10-04 - Canada does not participate in the EBFT fishery.
<i>BFT</i>	<i>1006</i>	<i>Redundant, included in 1022</i>	Not applicable. From Rec. 10-04 - Canada does not participate in the EBFT fishery.
BFT	1007	Fishing, inspection and capacity reduction plans for 2016	Not applicable. From Rec. 10-04 - Canada does not participate in the EBFT fishery.
BFT	1008	Adjustments to farming capacity plan	Not applicable. From Rec. 10-04 - Canada does not participate in the EBFT fishery.
BFT	1009	Modifications to fishing plans or individual quotas	Not applicable. From Rec. 12-03, Canada does not participate in the EBFT fishery.
BFT	1010	Report on implementation of Rec. 14-04, including Information on regulations and other related documents adopted for implementation of 14-04	Not applicable. From Rec. 10-04, Canada does not participate in the EBFT fishery.
BFT	1011	Bluefin tuna catches 2015	Canada provided monthly catch reports on for the months of July to November 2015 inclusive when the fishery occurred. Canada also provided Task data, including bluefin landings from 2015, to ICCAT on (25/07/2016).
BFT	1012	Bluefin tuna catching vessels	Not applicable. From Rec. 10-04 and 12-03. Canada does not participate in the EBFT fishery.
BFT	1013	Bluefin tuna other vessels	Not applicable. From Rec. 10-04 and 12-03, Canada does not participate in the EBFT fishery.
BFT	1014	Joint Fishing Operations	Not applicable. From Rec. 10-04 and 12-03, Canada does not participate in the EBFT fishery.
BFT	1015	VMS messages	Not applicable. From Rec. 10-04 and 12-03, Canada does not participate in the EBFT fishery.
BFT	1016	Inspection plans	Not applicable. From Rec. 10-04 and 12-03, Canada does not participate in the EBFT fishery.
BFT	1017	List of inspection vessels	Not applicable. From Rec. 10-04 - Canada does not participate in the EBFT fishery.
BFT	1018	List of inspectors [and agencies]	Not applicable. From Rec. 10-04 and 12-03, Canada does not participate in the EBFT fishery.
BFT	1019	Copies of inspection reports	Not applicable. From Rec. 10-04 and 12-03 - Canada does not participate in the EBFT fishery.
BFT	1020	Bluefin tuna transshipment ports	Not applicable. From Rec. 10-04 and 12-03, Canada does not participate in the EBFT fishery.
BFT	1021	Bluefin tuna landing ports	Not applicable. From Rec. 10-04 and 12-03 - Canada does not participate in the EBFT fishery.
BFT	1022	Bluefin tuna weekly catch reports	Not applicable. From Rec. 10-04 and 12-03, Canada does not participate in the EBFT fishery.
BFT	1023	Bluefin tuna monthly catch reports	Five reports submitted – (for months of July to November 2015 inclusive).

Category	N°	Information required	Response
BFT	1024	E-BFT fishery closures	Not applicable. From Rec. 10-04 - Canada does not participate in the EBFT fishery.
BFT	1025	Report on steps taken to encourage tag and release of all fish less than 30 kg/115 cm	There were no landings of Bluefin tuna under 30KG. Canada does not experience the capture of tunas less than 30kg/115cm. Tagging to date has focussed on larger fish that are more common in Canadian waters.  Canada does not permit "Charter Boat" operators to retain any fish and virtually all fish that are hooked are larger than 30kg/115 cm.
BFT	1026	Validated bluefin catch documents unless entered into eBCD	Not applicable as every bluefin tuna landed is tagged, 13 c) of Rec. 11-20.
BFT	1027	BCD Annual Report	Submitted 20/09/2016
BFT	1028	Validation seals and signatures for BCDs	Not applicable as every bluefin tuna landed is tagged. Validation not required as per 13 c) of Rec. 11-20.
BFT	1029	BCD Contact points	No change
BFT	1030	BCD legislation	Not applicable - no change from what was previously provided.
BFT	1031	BCD tagging summary, sample tag	Not applicable - no change from what was previously provided.
BFT	1032	Vessels not included as BFT fishing vessels and presumed to have fished E-BFT	Not applicable. From Rec. 10-04 and 12-03, Canada does not participate in the EBFT fishery.
BFT	1033	Data needed for registration in eBCD system	Submitted as required
TRO	2001	List of BET/YFT/SKJ vessels and subsequent changes	No changes since last submitted (15/06/2015).
TRO	2002	List of authorized vessels which fished bigeye, yellowfin and/or skipjack tunas in 2015	Submitted 25/07/2016
TRO	2003	Report on investigation of IUU activity by BET/YFT/SKJ vessels	Not applicable. There no investigations of IUU activity of BET/YFT vessels by Canada in 2015.
TRO	2004	Annual report on implementation of the area/time closure for BET/YFT/SKJ	Not applicable as Canada does not have vessels fishing bigeye or yellowfin in the geographical area of the area/time closure.
TRO	2005	<i>Redundant</i>	Not applicable as Canada does not have vessels fishing bigeye or yellowfin in the geographical area of the area/time closure.
TRO	2006	Data from ICCAT statistical document programs	Submitted 24/03/2016 and 31/08/2016.
TRO	2007	Validation seals and signatures for SDPs	Changes are submitted in season as required
TRO	2008	<i>Redundant</i>	
TRO	2009	Quarterly catches of bigeye catches	Submitted 19/10/2016
TRO	2010	Steps taken to implement FAD management plans (see also requirement S25)	Not applicable
SWO	3001	Data from ICCAT statistical document	Submitted 24/03/2016 and 31/08/2016.

Category	N°	Information required	Response
		programs	
SWO	3002	Validation seals and signatures for SDPs	Changes are submitted in season as required
SWO	3003	List of vessels targeting Med-SWO, including special permits for harpoons and longline	Not applicable. Canada does not have vessels that fish swordfish in the Mediterranean.
SWO	3004	List of sport/recreational vessels authorized to catch Med-SWO	Not applicable. Canada does not have vessels that fish swordfish in the Mediterranean.
SWO	3005	List of special fishing permits for harpoons or longline for highly-migratory pelagic stocks in the Mediterranean for the previous year	Not applicable. Canada does not have vessels that fish swordfish in the Mediterranean.
SWO	3006	Report on implementation of Med-SWO closure	Not applicable. Canada does not have vessels that fish swordfish in the Mediterranean.
SWO	3007	Development or fishing/management plan for north Swordfish	Submitted latest draft ICCAT 15/09/2016
ALB	4001	Redundant	
ALB	4002	Redundant	
BIL	5001	Notification of prohibition of dead discards of marlins	By licence condition, commercial harvesters are required to land dead marlins and must release any live fish in a manner that causes the least amount of harm to the fish.
BIL	5002	Report on steps taken to implement Rec. 12-04 through domestic law or regulations, including monitoring, control and surveillance measures	<p>In Canada, the issuance of licences and the ability to apply conditions to that licence are provided to the Federal Minister of Fisheries and Oceans Canada through the <i>Fisheries Act</i> and <i>Fishery General Regulations</i>.</p> <p>Participation in the commercial fishery is limited entry and marlins are only permitted to be fished by harvesters licensed to fish other tunas. There is no recreational fishery for marlins or other billfish permitted.</p> <p>All marlin catches are reported in Part I of the annual report</p> <p>By licence condition, commercial harvesters must release all live marlin in a manner that causes the least harm to the fish. All vessels permitted to land marlins are subject to observer coverage, 100% dockside monitoring of all catches and have mandatory logbook where they are required to list all harvested and released marlins.</p>
SHK	7001	Notification of the necessary measures to ensure that hammerhead sharks taken by developing coastal CPCs will not enter international trade	Not applicable. By licence condition, harvesters are prohibited from landing hammerhead sharks, with all landings being subject to dockside monitoring of catch.
SHK	7002	Notification of the necessary measures to ensure that silky sharks taken by developing coastal CPCs will not enter international trade	Not applicable. By licence condition, harvesters are prohibited from landing silky sharks, with all landings being subject to dockside monitoring of catch.
SHK	7003	Report on implementation of shortfin mako mortality reduction	Since 2008 Canadian harvesters have been releasing all shortfin makos that are alive when they reach the vessel.
SHK	7004	Report on steps taken to implement	As noted in the National Report, all sharks landing



Category	N°	Information required	Response
		Recommendation 11-08 through domestic law or regulations, including monitoring, control and surveillance measures that support implementation	information is collected through logbooks as well as through 100% dockside monitoring of catches. This information is provided to the Scientific Council through Task I and II data. By licence conditions, harvesters are not permitted to retain silky sharks as bycatch in ICCAT related fisheries.
SHK	7005	All CPCs submit to the ICCAT Secretariat details of their implementation of and compliance with shark conservation and management measures (Recs. 04-10, 07-06, 09-07, 10-08, 10-07, 11-08 and 11-15)	Retention of sharks as bycatch in ICCAT related fisheries is primarily two species; porbeagle and shortfin mako sharks with the release of any live sharks being encouraged.  All sharks landing information is provided to the Scientific Council through Task I and II data and reported in the Canadian National Report. By licence conditions, harvesters are not permitted to retain sharks that are prohibited from retention as bycatch in ICCAT related fisheries (bigeye thresher, hammerhead, oceanic whitetip, and silky sharks). Canada also monitors all landings of sharks at dockside to ensure that fins do not make up more than 5% of all sharks on board any vessel.
BYC	8001	Report on implementation of Rec 10-09, paras 1, 2 and 7, and relevant actions taken to implement the FAO guidelines	The Pelagic Longline Fleet has had a Code of Conduct in place since the early 2000's, and its adherence is a mandatory licence condition. Vessels flagged to Canada must carry on board safe handling, disentanglement and release equipment and it is mandatory for harvesters to release any incidentally harvested sea turtles in a manner that maximizes the probability of their survival  The pelagic longline fleet participated in a de-hooking certification course in 2007. A second training and certification program was conducted in March 2011 on the proper use of safe handling and release equipment and data recording protocols. Training is mandatory requirement for vessel operators/licence holders.
BYC	8002	Report on Implementation of seabird mitigation measures and NPOA for seabirds	Canada released its National Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries in 2007. In July 2012, Canada provided a Progress Report on the Implementation of Key Actions Taken Pursuant to this National Plan of Action (March 2007).
BYC	8003	Report on steps taken to mitigate bycatch & reduce discards and any relevant research in this field	While Canada has long worked with its various fleets to reduce the incidental harvest and discards, a new policy on Managing Bycatch was released in 2013 with the objectives of ensuring that Canadian fisheries are managed in a manner that supports the sustainable harvesting of aquatic species and that minimizes the risk of fisheries causing serious or irreversible harm to bycatch species; and to ensure that total catch, including retained and non-retained bycatch, are account for.  This Bycatch Policy is consistent with the <i>Food and Agriculture (FAO) International Guidelines for Bycatch Management and Reduction of Discards</i> adopted in early 2011.
SDP	9001	Description of pilot electronic statistical document systems	Not applicable.

Category	N°	Information required	Response
MISC	9002	Information and clarification regarding objections to ICCAT Recs	Not applicable.

#### ***Section 4: Implementation of other ICCAT Conservation and Management Measures***

In addition to those measures noted in Section 3 above, Canada has a Port Inspection Scheme consistent with the ICCAT Regulatory Recommendation. Canada uses an integrated approach to compliance monitoring. This includes independent verification of catches at dockside through a national dockside monitoring program (see section 2), vessel monitoring systems, at-sea observers, land and sea based patrols along with a highly effective air surveillance program. Well trained fishery officers collect and analyze fishing data and where problems are noted conduct extensive investigations. All these activities are focused on ensuring harvesters, buyers, processors and exporters are complying with domestic regulations (which include ICCAT regulatory recommendations; see section 3).

Observer coverage is used periodically to monitor important management questions in the commercial and catch and release fisheries.

There were no landings of tuna or tuna like species at Canadian ports by non-Canadian vessels during 2015. While some US swordfish vessels unload catch in several Canadian ports, this fish is not considered as being landed in Canada as it is placed immediately in bond and shipped directly to the USA. Canadian fisheries officers monitor these offloads.

#### ***Section 5: Difficulties encountered in implementation of and compliance with ICCAT conservation and management measures***

There were no difficulties in the implementation of or in the compliance with ICCAT conservation and management measures during the 2015 fishery. ICCAT related fisheries receive a high level of compliance monitoring in Canada and there were no significant compliance issues identified in any of the Canadian fisheries covered by ICCAT in 2013.

**References**

- Busawon D.S., *et al.* 2015. Evaluation of an Atlantic bluefin tuna otolith reference collection. Col. Vol. Sci. Pap. ICCAT, 71(2): 960-982.
- Porter J.M., Wood B.M. and Stone H.H. 2000. Preliminary estimation of the tonnage of dead swordfish and bluefin tuna discards from the 1998 Canadian swordfish longline fishery. Col. Vol. Sci. Pap. ICCAT, 51(5): 1460-1468.

**Table 1.** Canadian landings (tonnes round weight) of large pelagic fish species, 2005-2015.

<i>Species</i>	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Swordfish	1203.3	1557.9	1403.6	1334.0	1299.7	1345.6	1550.6	1488.5	1505.5	1604.2	1579.3
Bluefin tuna	536.9	599.7	732.9	574.8	530.2	505.4	474.1	476.6	480.4	462.9	530.6
Albacore tuna	27.1	52.1	27.3	33.4	10.7	14.3	28.0	34.0	31.8	47.1	32.2
Bigeeye tuna	143.1	186.6	196.1	130.2	111.0	102.8	136.9	166.4	197.3t	218.2	257.3
Yellowfin tuna	303.5	239.5	292.9	167.9	53.4	166.0	49.7	92.7	73.5	34.2	59.0
Unspec. tuna	0.2	1.3	0.0	0.1	0.0	0.01	0.06	0.4	0.4	0.01	0.02
Blue shark	0.3	11.4	4.4	0.2	0.1	0.3	0.8	1.2	0.2	0.2	0.06
Shortfin mako	79.5	90.9	71.4	42.8	53.2	41.0	37.4	28.7	35.2	54.6	84.6
Porbeagle	231.5	202.2	192.2	123.9	62.4	83.4	30.1	33.3	18.6	8.9	4.2
Unspec. shar	11.3	14.7	8.3	5.8	4.6	8.4	5.2	3.2	0.0	0.0	0.0
Marlin	1.7	4.7	3.1	2.6	0.6	1.9	0.8	2.3	2.7	5.1	3.1

**Table 2.** Canadian bluefin tuna landings and discards (tonnes round weight) by fishing area, 2006-2015.

<i>Bluefin fishing area</i>	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Southwest Nova Scotia	351	174	231	234	240	145	192	182	152	<b>158</b>
Northeast Nova Scotia <sup>1</sup>	45	60	65	13	17	26	14	20	20	<b>44</b>
Gulf of St. Lawrence	312	226	263	263	211	207	228	228	246	<b>278</b>
Newfoundland	11	14	0	9	35	21	26	27	23	<b>27</b>
Offshore	14	17	16	11	2	74	17	16	20	<b>24</b>
Year-end adj <sup>2</sup>	<1	<1	-	-	1.5	<1	-	-	-	-
<b>Total Landings</b>	<b>732.9</b>	<b>491.0</b>	<b>574.8</b>	<b>530.2</b>	<b>505.4</b>	<b>474.1</b>	<b>476.5</b>	<b>473.2</b>	<b>462</b>	<b>530.6</b>
Scientific Tagging/Catch and Release Mortality <sup>4</sup>	-	-	-	-	7.5	6.3	7.8	6.4	0.273	<b>1.654</b>
Dead Discards <sup>3</sup>	2.0	0.72	1.2	2.9	1.3	3.0	3.1	0	0	<b>2.8</b>
Canadian quota	755.1	571.4	626.2	553.8	518.6	490.4	487.4	484.5	487.3	<b>528.88</b>

<sup>1</sup> Fish caught in NAFO areas 4V and 4Wd.<sup>2</sup> e.g., seized, Bermuda fishery or tournaments.<sup>3</sup> Discarded dead estimates from swordfish longline fishery 2001-2008 estimate for entire fishery based on observer coverage (see Porter *et al.*, 2000), while 2009 and after are observed discard values only (not elevated to fishery level).<sup>4</sup> Includes estimated mortality from catch and release fisheries, as well as associated studies.**Table 3.** Distribution of tuna, swordfish longline and shark fishing licences by region and species<sup>1</sup> in 2015.

Region	Number of licences <sup>1</sup>							
	Bluefin		Swordfish (LL)		Other tuna (LL) <sup>3</sup>		Sharks	
	Total	Active	Total	Active	Total	Active	Explor.	Rec.
Gulf	600	580	-	-	-	-	0	20
Newfoundland	55 <sup>2</sup>	14	1	1	1	0	-	130
Scotia-Fundy	46	39	76	63	76	54	0	414
St. Margaret's Bay	24	3	-	-	-	-	-	-
Offshore	=	=	<u>1</u>	=	<u>1</u>	<u>1</u>	=	=
Quebec	<u>53</u>	<u>49</u>	<u>=</u>	<u>=</u>	<u>=</u>	<u>=</u>		<u>1</u>
Total	778	685	78	64	78	55	0	565

<sup>1</sup> Bluefin tuna, swordfish, other tunas, and sharks (exploratory longline licences) are regulated by limited entry. Recreational shark licences are restricted to hook and release only, and the number varies from year-to-year, depending on demand.

<sup>2</sup> 38 of these licences are subject to a reduced level of fishing activity and restricted to NAFO Divisions 3LNOP.

<sup>3</sup> Restricted to tunas other than bluefin (albacore, bigeye, yellowfin).

Note: Active fishermen are those that picked up their licences, licence conditions and tags, and submitted log records.

**Table 4.** Summary of 2006-2015 swordfish vessels landing fish, landings (tonnes round weight), discards<sup>1</sup>, average weight of fish (kg round) by gear, percentage of small fish by number<sup>2</sup>, and percentage of catch sampled for size.

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Number of vessels										
landing fish										
Longline	51	55	53	52	47	40	44	48	46	<b>52</b>
Harpoon	78	76	75	74	74	69	50	63	66	<b>52</b>
Landings (t)										
Longline	1200.3	998.8	1076.1	1051.8	1166.0	1342.9	1391.1	1225.5	1371.2	<b>1481.0</b>
Harpoon <sup>1</sup>	203.3	267.4	257.9	247.7	176.1	207.7	97.3	279.9	233.0	<b>98.2</b>
Total	1403.6	1266.2	1334	1299.7	1342.5	1550.6	1488.5	1505.4	1604.2	<b>1579.3</b>
Discards (t) <sup>2</sup>	38	60.8	38.7	9.3	15.2	7.8	71.1	59.4	12.1	<b>TBD</b>
Average weight (kg)										
Longline	74	75	73	76	78	88	81	77	79	<b>81</b>
(# sampled)	(15541)	(14246)	(11648)	(12473)	(12899)	(14755)	(15461)	(13990)	(17296)	<b>(16688)</b>
Harpoon	108	102	106	100	98	106	105	91	125	<b>125</b>
(# sampled)	(2275)	(2327)	(2757)	(2074)	(1778)	(1937)	(1018)	(2963)	(1806)	<b>(563)</b>
% small fish by number landed <sup>3</sup>										
<125 cm	<<1	<<1	<<1	<<1	<<1	<<1	<<1	<1	1.9	<b>2.7</b>
<119 cm	<<1	<<1	<<1	<<1	<<1	<<1	<<1	<1	1.9	<b>0.5</b>
% of catch sampled	100	96	86	89	88	97	92	90	100	<b>90</b>

<sup>1</sup> Harpoon landings include landings by the Pelagic Longline licence holders using harpoon gear.

<sup>2</sup> Discarded dead from swordfish longline fishery: estimate for entire fishery based on Observer coverage (see Porter *et al.*, 2000); 2014 calculations are still to be determined (TBD) as they are under review.

<sup>3</sup> Minimum size under regulation: <25 kg round weight or <125 cm LJFL with 15% tolerance (by number).

## ANNUAL REPORT OF SOUTH AFRICA

M. Meyer; C. da Silva and S. Kerwath

*Summary*

The South African tuna and billfish resources are exploited by baitboat and longline fisheries. The baitboat fleet consisted of 91 active vessels of an average 16m length overall (LOA) fishing for 4738 catch days. The baitboat season from September 2014 to May 2015, saw the baitboat fleet increase the juvenile and sub-adult albacore (*Thunnus alalunga*) catch by 278t resulting in an increased catch of 3 898t, a decrease in the yellowfin tuna (*Thunnus albacares*) catch to 885t and bigeye tuna (57t) which was not mentioned last year. The South African longline fleet consists of South African and foreign flagged vessels which use different fishing strategies: South African flagged vessels have traditionally used swordfish (*Xiphias gladius*) targeting methods in the Indian and Atlantic Oceans, whereas the Japanese foreign flagged vessels target the tropical tunas (yellowfin and bigeye tuna (*Thunnus obesus*)) mostly in the Indian Ocean. Although the local South African fleet have traditionally targeted swordfish, their catch composition in recent years has been dominated by tropical tunas and sharks (*Prionace glauca* and *Isurus oxyrinchus*). There has been a decrease in number of hooks set (1187277 hooks), a difference of an amount of 15559 hooks since last year, the catches of bigeye tuna (143t), yellowfin (142t) and blue shark (*Prionace glauca*) (402t) decreased. Catches of swordfish (218t) and albacore (132t) and shortfin mako shark (*Isurus oxyrinchus*) (487t) increased. 15 local vessels were active in the ICCAT region. The southern bluefin tuna (*Thunnus maccoyii*) is not targeted because of the minimal quota granted by CCSBT, thus landings totalled 30 t in 2015 in the ICCAT region. Albacore is the main target of the baitboat fleet and swordfish that of the South African flagged longline fleet, the unpredictable fluctuations of albacore and the reduced catch of swordfish over at least the last 5 years has made it difficult for the local vessels to maintain viable operations. Strategies to reduce shark targeting to direct effort towards improved tuna and billfish catch have been included in the Large Pelagics Fishery Policy revision will be implemented in the next fishing season. The necessity to conduct research into the stock origin and intermixing of tuna and swordfish populations at the boundary between the Atlantic and Indian Oceans is a high research priority in South Africa. Furthermore, South Africa has made significant strides to improve abundance indices of large pelagic fish and shark species.

**Part I (Information on fisheries, research and statistics)*****Section 1: Annual Fisheries Information******1.1 Pole and Line fishery, Traditional Linefishery, and Recreational Fishery***

The pole and line (baitboat) fishery generally operates between September and May along the west coast of South Africa. Improvements in the skippers' ability to predict suitable weather and sea conditions have resulted in fewer days (effort) of zero or minimal catches. The total reported annual pole fleet catch (including the use of rod and reel on poling vessels) in the Atlantic region has increased to 3 898 t of albacore (*Thunnus alalunga*) with a marked decrease of yellowfin tuna (*Thunnus albacares*) to 885 t in 2015. Although this fishery started on yellowfin tuna, catches fluctuate due to the inconsistent availability of this species in the nearshore around the Cape of Good Hope. The effort (number of fishing days) in 2015 has increased but the number of active vessels has further decreased to a historical low of 91 (**Table 1**). The reliance of this fishery for availability of tuna in the inshore regions has a large influence on the catch performance.

Twenty baitboat vessels are equipped to catch live bait (mainly anchovy *Engraulis capensis*) with a small purse seine net (not longer than 100m with a drop of 35m and a mesh of 14.5 mm) and to keep them alive in holding tanks. An additional 12 vessels are equipped with the holding tanks only and can receive live bait from other vessels.

The traditional commercial Linefishery opportunistically target albacore and yellowfin tuna when they are close inshore and when linefish species are not available. The commercial linefish skippers, when reporting their catches, have in some instances grouped their tuna catches under a 'general tuna' category. These catches are

most likely albacore and yellowfin tuna. South Africa is continually working on improving species identification in catch reporting.

The recreational fishery, including informal charter and sport fisheries using rod and reel and spear guns, also targets albacore, yellowfin, skipjack, bigeye tuna and marlins (blue marlins *Makaira nigricans* and black marlins *Istiompax indica*) from small fishing vessels (5-10m) in the area around the Cape of Good Hope. Although catch and effort in the recreational fishery are not subject to mandatory reporting, the total catch is estimated between 100-140 t for albacore and a further 20-40 t for yellowfin in the Atlantic Ocean. Recreational fishers are restricted by an overall bag limit of 10 and individual bag limits of 10 tuna per day and 5 billfish (marlins and sailfish) and 5 swordfish per day and catches may only be used for own consumption. However, most recreational fishing takes place on the near shore during holiday and few anglers are equipped to target tuna in the Atlantic Ocean.

## *1.2 Longline Fishery*

The Department of Agriculture, Forestry and Fisheries (hereafter referred to as the Department) integrated 9 pelagic shark longline fishery in the tuna/swordfish pelagic longline fishery during the allocation of long term fishing rights in 2005, where these rights holders were permitted to fish until March 2011 under exemption. Six of the former pelagic shark longline fishery vessels were issued with tuna/swordfish pelagic longline Rights for the remainder of the long term Rights period which concluded in February 2015. The total number of active longline vessels for South Africa (Indian and Atlantic Oceans) continued to decrease from 31 in 2011 to 15 vessels in 2015 with fewer joint venture (Japanese) vessels taking out permits in South Africa's waters. Consequently the number of hooks and the catches of all tuna have decreased compared to 2014. Only the catches of mako shark have increased to 487 t. South Africa is in the process of allocating new long term rights in this fishery. It is intended to implement policy and regulation changes that further integrate the previously separated longline sectors and control the increase of shark catches in favour of tuna directed performance.

## **Section 2: Research and Statistics**

### *2.1. Pole and Line fishery, Traditional Linefishery, and Recreational Fishery*

#### *2.1.1. Logbooks*

Each Rights Holder in the baitboat fishery records daily catches in the onboard logbook. The logbooks capture estimated round and dressed weight (species dependent) of all fish retained per day, the geographical coordinates (1x1 degree blocks), gear used, bait used (live bait, fresh or frozen) etc. Landed/factory weight of fish that are measured on scales has recently been included, and these data will be used to report more accurate nominal weight in future. The Department, the Industry Associations and Rights Holders continuously work to improve reporting by the baitboat fishery.

#### *2.1.2. Observer coverage*

The small size of the South African baitboat vessels (average 16m LOA) precludes the accommodation of an onboard observer. As the majority of the vessels offload their catch at night there is limited capacity within the permanent departmental monitoring and compliance staff to monitor every discharge as required. The Department's shore-based observer programme that monitored vessel offloads in port ended in March 2011. Although the programme has not yet been re-established, the specifications for the new programme have been developed and include comprehensive monitoring of all the large pelagic fisheries operating around South Africa.

#### *2.1.3. Onboard sampling*

Baitboat vessels are requested to collect yellowfin tuna length frequency measurements onboard the vessel before the fish are dressed. The Department is striving towards increased reporting on these

valuable data. The baitboat vessels submitted measurements of 1436 yellowfin in 2015, as is indicated in the Task II submission.

#### 2.1.4. *Factory sampling*

In the absence of an observer programme, 1189 albacore length frequency measurements were taken monthly in factories by Department staff. These data have been submitted with the Task II data submission.

### 2.2 *Tuna/ Swordfish Longline Fishery*

#### 2.2.1. *Logbooks*

Rights Holders in the tuna/swordfish longline fishery have been required to complete daily logs of catches since 1997. The logbook records the catch locations, number of hooks, time of setting and hauling, bait used, number and estimated weight of retained species, and data on bycatch (seabirds, turtles and sharks). The data collection on bycatch was included in the absence of an observer programme. The Department aims to collect discard data based on skipper logbooks in the future once a joint decision is made by DAFF and industry how best to incorporate these on the already detailed forms. To facilitate reporting all active vessels have been issued with identification guides on tunas, common bycatch species, sharks, billfish, seabirds and turtles.

#### 2.2.2. *Observer coverage*

Since 1998, South Africa has implemented an on-board observer programme for the tuna/swordfish pelagic longline fishery. Although the programme came to an end in March 2011, the foreign-flagged joint venture vessels are required to carry an observer for 100% of their trips, but no foreign-flagged vessels fished in the ICCAT area in 2015. The planned observer programme for the domestic longline vessels should result in 10 - 20% observer coverage of domestic fishing trips. South Africa recognises the importance of the observer programme in ensuring that vessels comply with bycatch (sharks, seabirds and turtles) mitigation measures and catch and size limits for target and bycatch species.

### 2.3. *Research*

The management boundary that separates the ICCAT from the IOTC at 20° East divides the South African pelagic marine environment in two approximately equal zones. Stocks of pelagic species with large ranges and a widespread larval dispersal often straddle this boundary, which has implications for South Africa's research, reporting and assessment regimes. Biologically meaningful stock boundaries need to be investigated and considered for each species. The level of intermixing, the degree of reproductive isolation and a biologically and genetically defined boundary needs to be determined and considered when South African catch data is included in regional stock assessments. Studies that aid in resolving stock boundary issues are encouraged and much welcomed in South Africa.

#### 2.3.1. *Current research projects*

2.3.1.1. Albacore has been studied mainly in the North Atlantic and the North Pacific, and little is known about this species in the southern regions and tropics. In the Pacific and Atlantic oceans there is a clear separation of southern and northern stocks associated with the oceanic gyres. The Indian Ocean population, is thought to comprise of a single stock, distributed from 5°N to 45°S, but this link between Indian Ocean and South Atlantic stocks needs to be investigated. In South African waters, mainly juveniles are caught but the links with the adult populations are still not completely understood. South Africa is a collaborator on the GERMON project led by Institut français de recherche pour l'exploitation de la mer (IFREMER) and Institut de recherche pour le développement (IRD) to better understand the stock structure of albacore between the Indian and Atlantic Oceans. Genetic, morphological and biological sampling was concluded in July 2014 and the data are currently being published.

2.3.1.2. Swordfish genetic samples collected around the coastline are being analysed for a study on swordfish stock delineation between the Indian and Atlantic Oceans. 19 microsatellite markers on 605 samples are



being used in the study. The MSc student has graduated and the research has been concluded. Two papers are in preparation.

- 2.3.1.3. South Africa is seeking ways to improve the indices of abundance in the tuna pole fleet and tuna/swordfish longline fleet for contribution in future stock assessment sessions of tunas, swordfish and sharks. Standardised CPUE indices have based on General Additive Mixed Modelling have been developed for Albacore.
- 2.3.1.4. Two bigeye tuna (*Thunnus obesus*) and one southern bluefin tuna (*Thunnus maccoyii*) were successfully PSAT tagged on research cruise on the *RV Ellen Khuzwayo* in August 2015. These fish were tagged at 36S, 19E with tags setup to pop off after 90 (2 tags) and 180 days (1 tag). Data from these tags will reveal horizontal movement patterns between the Atlantic and Indian Oceans. Additional sampling is subject to the availability of funding.
- 2.3.1.5. The heavy metal contamination of commercially important large pelagic species (blue shark (*Prionace glauca*), shortfin mako (*Isurus oxyrinchus*) and yellowfin tuna *Thunnus albacares* ) has been investigated by a PhD student in the Meat science, Processing & Product Development research team (Department of Animal Sciences) at Stellenbosch University. Levels of Mercury in South African caught mako sharks are a cause for concern as the maximum allowable limit was exceeded in 100% of samples. The findings have been published.
- 2.3.1.6. A MSc (Ichthyology Department) at Rhodes University project is underway looking at the shark by-catch in pelagic longline fisheries. Particularly, it aims to look at catches of requiem sharks. In addition, the collection of genetic samples from closely related requiem shark species (silky sharks *Carcharhinus falciformis*, dusky sharks *Carcharhinus obscurus* and bronze whaler sharks *Carcharhinus brachyurus*) will answer questions on the level of species misidentification by vessels.
- 2.3.1.7. “Genetic diversity and population structure among Atlantic nurseries of the blue shark *Prionace glauca* (Linnaeus, 1758)”. The study aims to help clarify the Atlantic stock structure of blue sharks by using 13 nuclear microsatellites and a 993 bp fragment of the mitochondrial control region, and by sampling young-of-year and small juveniles (< 2 yr) at each of three reported Atlantic blue shark nurseries, i.e. western Iberia, Azores and South Africa. This manuscript is still in preparation since more samples from neonate sharks are being collected.
- 2.3.1.8. “Movement of juvenile shortfin mako sharks (*Isurus oxyrinchus*) around the Agulhas Bank shelf edge- Investigating the existence of a nursery ground”. This project aims to investigate the movement of juvenile shortfin mako sharks around the Agulhas Bank shelf. To date 19 mako sharks have been tagged with PSAT and SPOT tags in collaboration with DAFF, DEA (Department of Environmental affairs) and SWIOFP (South West Indian Fishery Project). Since sharks were only recently tagged we are still waiting for tags to transmit. . This study aims to identify whether a shortfin mako nursery exists along the south coast of South Africa. One of the key research priorities involves investigating the movement of large pelagic sharks and fish between the Indian and Atlantic Ocean.
- 2.3.1.9. Movement and distribution of blue sharks based on PSAT tagging data has been analysed within a multi-authored study that is currently under review for publishing suggesting a single blue shark stock within the southern Atlantic Ocean. This project is completed and the manuscript is currently in preparation.
- 2.3.1.10. “The current status and management of South Africa's chondrichthyan fisheries”. The chondrichthyan catches across South African fishery sectors was examined with the intention of elucidating the impact of target and by-catch fisheries as well as providing a history of their management within each sector. Paper is published.
- 2.3.1.11. The Department, with the assistance of NGOs (e.g. Birdlife SA), assesses the impact of longline fisheries on seabirds, turtles and sharks and to investigate various mitigation and management measures. A National Plan of Action for seabirds (NPOA-seabirds) was published in 2008, which aimed to reduce seabird mortalities below 0.05 seabirds.1000hooks<sup>-1</sup>. Good collaboration with the fishing industry, researchers and managers, continual refining of mitigation measures, the

implementation of stringent management measures through permit conditions, and close monitoring through the observer programme has resulted in decreased seabird mortalities and the mortality rate in 2012 was less than 0.05 seabirds per thousand hooks, reaching the goal identified in NPOA-seabirds.

### 2.3.2. Previous research projects

- 2.3.2.1. South Africa's involvement in the South West Indian Ocean Fisheries Programme (SWIOFP) through Component 4: Assessment and sustainable utilization of large pelagic resources has provided momentum to our research programme. The primary focus is to understand the distribution and movement of swordfish, bigeye and yellowfin tuna within the SWIO region, to which end 15 pop-up satellite archival tags (PSATs) were provided for deployment on swordfish, yellowfin and bigeye tunas as well as hook monitors and time depth recorders for deployment of an instrumented longline.
- 2.3.2.2. The Department's national research cruise in 2011 was a momentous achievement during which 11 swordfish were successfully PSAT tagged in the South West Indian Ocean (SWIO) region with SWIOFP tags. Swordfish have proven to be very sensitive to handling and South Africa is the first country to achieve PSAT tagging of swordfish in this region. Tags have been programmed for either 90 or 180 days. Of the 11 tags, 4 remained on the swordfish for more than 2 months. The results of this study were presented at the IOTC Working Party for Billfish in 2012 (Document number IOTC-2012-WPB10-16). South Africa aims to conduct further research on the movement of large pelagic species between the Indian and Atlantic Oceans by placing more satellite (PSAT and SPOT) tags on animals. Coupled with movement data, genetic studies on the differences between swordfish from the two Ocean basins are currently being explored. There are no formal scientific programmes for billfish in South Africa (*Rec 06-09*).
- 2.3.2.3. South Africa has collected instrumented longline data (Time Depth Recorders and Hook Timers) from 29 sets (of between 259 – 300 hooks per set) obtained on the dedicated research cruises on the Ellen Khuzwayo research vessel, though more data is required for analysis for a target and bycatch study.
- 2.3.2.4. "Aspects of the biology and fishery of the blue shark (*Prionace glauca*) in South African waters". This project examined the blue shark fishery in South Africa as well as examining aspects of their biology. Spatio-temporal analyses on nominal CPUE, as well as a standardised CPUE series revealed seasonality in blue shark abundance with a high abundance during summer and autumn off the west coast of South Africa. Annual standardised CPUE revealed that blue shark abundance has remained relatively stable from 1998 to 2008, contradictory to previous findings. The findings from this study suggested that the blue sharks from South Africa are not being overfished, corroborating the findings of the 2008 ICCAT stock assessment. This study resulted in an MSc thesis, publication and IOTC document.

da Silva, C., Booth, A., Dudley, S., Kerwath, S., Lamberth, S., Leslie, R., McCord, M., Sauer, W., et al. 2015. The current status and management of South Africa's chondrichthyan fisheries. *African Journal of Marine Science*. 37(2):233–248. DOI: 10.2989/1814232X.2015.1044471.

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BOSCH, ADINA C; O'NEILL, BERNADETTE; SIGGE, GUNNAR O; KERWATH, SVEN E; HOFFMAN, LOUWRENS C (2016). Mercury accumulation in Yellowfin tuna (*Thunnus albacares*) with regards to muscle type, muscle position and fish size. *Food chemistry* 190. 351-356.

**Table 1.** The total number of catch days (effort), total number of active vessels, total catch (tons) and the length frequency range of the main species caught by the baitboat vessels in the ICCAT region, 2006 - 2015.

<i>Year</i>	<i>Total nr of catch days</i>	<i>Nr active vessels</i>	<i>Albacore</i>	<i>Yellowfin tuna</i>	<i>Bigeye tuna</i>	<i>Skipjack tuna</i>
2006	3120	111	2160	962	1	0
2007	4142	118	3663	947	10	0
2008	3052	115	2083	347	8	4
2009	4431	123	4586	223	17	4
2010	4408	116	4087	177	8	1
2011	5001	118	3166	629	15	5
2012	5157	123	3483	162	12	8
2013	4114	107	3492	374	142	3
2014	4416	95	3620	1351	50	5
2015	4738	91	3898	885	57	2
Length average			86 cm FL	133 cm FL		
Length range			55 - 126 cm FL	60 - 192 cm FL		

**Table 2.** The total effort (in x1000 hooks), total number of active vessels, total catch (tons) and the length frequency range for the main species caught in the longline fishery in the ICCAT region, 2006 – 2015. All species except for mako and blue sharks are reported in round weight.

<i>Year</i>	<i>Total ICCAT effort (.1000 hooks)</i>	<i>South African flagged active vessels</i>	<i>Foreign-flagged active vessels</i>	<i>Bigeye tuna (t)</i>	<i>Yellowfin tuna (t)</i>	<i>Albacore (t)</i>	<i>Swordfish (t)</i>	<i>Southern bluefin tuna (t)</i>	<i>Mako shark (t)</i>	<i>Blue shark (t)</i>
2006	603	15	0	78	163	46	174	2	12	21
2007	1229	14	6	147	111	77	205	4	16	34
2008	870	9	9	200	38	107	142	28	8	25
2009	1056	12	7	159	87	151	205	1	26	7
2010	636	9	6	144	55	85	146	30	25	8
2011	749	14	4	125	121	84	97	10	139	257
2012	498	14	4	63	17	87	51	9	93	161
2013	968	12	4	294	70	116	171	17	177	179
2014	1203	16	1	282	161	101	152	27	369	544
2015	1187	15	0	143	142	132	218	30	487	402
Length average (cm)				135 FL	116 FL	96 FL	171 LJFL	157 FL	150 SL	189 SL
Length range (cm)				52 – 236 FL	39 – 200 FL	30 – 140 FL	63 – 320 LJFL	81 – 201 FL	63 – 325 SL	70 – 340 SL

	<b>Requirement</b>	<b>Response</b>
	<b>GENERAL - all species</b>	
S1	Annual Reports (Scientific)	15 August 2016
S2	Fleet Characteristics	15 August 2016
S3	Estimation of nominal catch Task I	15 August 2016
S4	Catch & Effort (Task II)	15 August 2016
S5	Size samples (Task II)	15 August 2016
S6	Catch estimated by size	
S7	Tagging declarations (conventional and electronic)	
S8	Catches from sport & recreational fisheries in the Mediterranean Sea (all tuna and tuna-like species)	
S9	Specific data to determine separately the magnitude of recreational fisheries of each species	
S10	Information collected under domestic observer programs	
S11	Alternative scientific monitoring approach	
S12	Information and data on pelagic Sargassum	
S13	Specific information for the fishing vessels that were authorized to carry out pelagic longline fisheries and harpoons in the Mediterranean during the preceding year	
	<b>BLUEFIN TUNA</b>	
S14	Sport and recreational fishing data	
S15	Size sampling from farms	
S17	The results of programme using stereoscopic cameras systems or alternative techniques that provide the equivalent precision at time of caging (covering 100% of all cagings )	
S18	Information on and data collected under the national BFT observer programmes	
S19	Report on fishing mortality of all W-BFT, including dead discards	
S20	Information on confiscated bluefin tuna of unauthorised by-catch	
S21	Details of cooperative research programs on W-BFT to be undertaken	
S22	Updates to abundance indices and other fishery indicators	
S23	Information resulting from GBYP related research including new information resulting from enhanced biological sampling activities	
	<b>TROPICAL TUNA</b>	

S24	Information from logbooks on BET/YFT vessels	15 August 2016
S25	Management Plans for the use of fish aggregating devices	
S43	<i>Redundant – see management TRO-2001 and S45</i>	
S44	The number of FADs actually deployed on a quarterly basis, by FAD type, indicating the presence or absence of a beacon associated to the FAD	
S45	For each support vessel, the number of days spent at sea, per 1° grid area, month and flag State and associated to PS/BB	
S46	Information collected by observers	
S47	Data and information collected from sampling programme under Rec. 14-01	
<b>SWORDFISH</b>		
S26	Best available data on SWO, including by sex and discards and effort statistics	
<b>BILLFISH</b>		
S27	Results of scientific programmes for billfish	
S28	Report on methods for estimating live and dead discards of blue marlin and white marlin/spearfish	
<b>SHARK</b>		
S29	CPCs shall submit Task I and Task II data for sharks including available historical data	15 August 2016
S30	Task I and Task II of thresher sharks, including discards and releases	15 August 2016
S31	CPCs shall record through their observer programs the number of discards and releases of silky sharks with indication of status (dead or alive) and report it to ICCAT	15 August 2016
S32	Plan for improving data collection for sharks on a species specific level	Identification guides were issued to vessels in 2013.
S33	Task I and Task II of silky sharks caught for local consumption	15 August 2016
S34	Task I and Task II of hammerhead sharks caught for local consumption	15 August 2016
S35	Number of discards and releases of hammerhead sharks with indication of status (dead or alive)	15 August 2016
S36	Number of discards and releases of oceanic whitetip with indication of status (dead or alive)	15 August 2016
S48	Results of research on shortfin mako	
<b>OTHER BY-CATCH</b>		
S37	Provision of existing identification guides for sharks, seabirds and turtles and marine mammals caught in the Convention area	Identification guides were issued to vessels in 2013.
S38	Information on interactions of its fleet with sea turtles in ICCAT fisheries by gear type	15 August 2016
S39	CPCs shall record data on seabird incidental catch by species through scientific observers in accordance with the Recommendation 10-10 and report these data annually	15 August 2016
S40	CPCs shall report the bycatch and discard data	15 August 2016
S41	Notification of measures taken on the collection of bycatch and discard data in artisanal fisheries through alternative means	
S42	CPCs shall report on steps taken to mitigate bycatch and reduce discards, and on any relevant research	

## Part II (Management Implementation)

### Section 3: Implementation of ICCAT Conservation and Management Measures

Category	No	Information Required	Response
GEN	0001	Annual Reports (Commission)	The Part I and II submitted on 21 October 2016.
GEN	0002	Report on implementation of reporting obligations for all ICCAT fisheries, including shark species	South Africa has submitted the following data and reports to ICCAT: Task I and II data 22 August 2016 Chartering report for 2015 Charter notification Comp-005 for 2015 Points of contact for port entry notifications Copies of port inspection reports Notification of Access Agreement Vessel authorisation lists and revised lists Designated ports Notification period for port entry Points of contact regarding port entry List of vessels greater than 20 metres
GEN	0003	ICCAT Compliance Reporting Table.	Compliance Reporting Table to be transmitted to the ICCAT Secretariat on 28 October 2016.
GEN	0004	Vessel Chartering - summary report.	Report sent to the Secretariat on 26 July 2016.
GEN	0005	Vessel Chartering - arrangements and Termination.	Report in respect of chartering arrangements, sent to the Secretariat on: 24 April 2015 for the vessels, <i>Fukuseki Maru No. 31</i> , <i>Koei Maru No.88</i> and <i>Taiyo Maru No. 58</i> ; and 03 June 2015 for the vessel, <i>Koei Maru No.1</i> .  Report in respect of termination of chartering arrangements, sent to the Secretariat on: 09 July 2015 for the vessel, <i>Taiyo Maru No. 58</i> ; and 28 October 2015 for the vessels, <i>Koei Maru No.1</i> , <i>Koei Maru No.88</i> and <i>Fukuseki Maru No. 31</i> .
GEN	0006	Transshipment reports	None to report.
GEN	0007	Transshipment declaration (at sea)	Not applicable. South Africa does not permit transshipment at sea.
GEN	0008	Carrier Vessels authorised to receive transshipment of tuna and tuna-like species in the Atlantic Ocean and any subsequent modifications	Not applicable. South Africa does not have any authorised carrier vessels to receive transshipments.
GEN	0009	LSPLVs which are authorised to tranship to carrier vessels in the Atlantic Ocean and any subsequent modifications	Not applicable. South Africa does not permit transshipment at sea.
GEN	0010	Points of contact for port entry notifications	Contact details updated and report sent to the Secretariat on 29 April 2015.
GEN	0011	List of designated ports into which foreign fishing vessels may request entry	Not applicable. No changes made to the list of designated ports, i.e., Cape Town, Durban and Port Elizabeth Harbours.
GEN	0012	Notification period required for entry into port of foreign fishing vessels	Not applicable. No changes made to the Notification period required for entry.
GEN	0013	Copies of port inspection reports	122 inspections were conducted in 2015. Port inspection reports were completed but unfortunately not all of the inspection reports were transmitted due to challenges experienced during the submission of reports via email as a result of attachment volume and recipient inbox clearing. South Africa is currently deploying the drop box

			submission of reports where all the 2015 reports will be submitted on 21 October 2016.
GEN	0014	Copies of port inspection reports containing apparent infringements	<p>5 infringements were noted. These included the issuing of fines to the vessels Hung Yu #8, charged for possession of abalone; Shinsei Maru 11, charged for failing to declare fish on board; Hung Yih 212 (Case docket) charged for failing to offload shark fins together the trunks; Jai de 6 charged for not having the EEZ permit available for inspection; and the Insung Ho charged for not having the EEZ permit available for inspection. Kaiho Maru 88; Kaiho Maru 68; Feng and Shun Yu charged for not having the original fishing vessel licences on board; A total of R29 000 in fines and 1 Case docket pending.</p> <p>South Africa is currently deploying the drop box submission of reports (including copies of the reports containing infringements) where all the 2015 reports will be submitted on 21 October 2016.</p>
GEN	0015	Action taken following port inspection if apparent infringement is found	Investigation Case dockets were opened, the Master of the vessel charged and seizure notices were issued in respect of the the vessels. Vessels were also fined.
GEN	0016	Notification of results of investigation of apparent infringements following port inspection	The vessel Ching Chen No 3 was charged with not having true certified fishing vessel licence copies on-board and no fishing logbooks. The captain pleaded guilty and was fined R75000. The Shen Fu BH3191 was also charged for not having vessel licence on-board, drawing plans and no fishing logbooks and concluded with a fine of R75 000.
GEN	0017	Information of bilateral arrangement for Port Inspection	No bilateral arrangements made regarding port inspections for the current reporting period.
GEN	0018	Access Agreements and changes	South Africa does not allow any fishing in its waters under Access Agreements.
GEN	0019	Summary of activities carried out pursuant to access agreements, including all catches	None to report as South Africa does not allow fishing in its waters under Access Agreement.
GEN	0020	List of vessels greater than 20 metres	Vessel list submitted to the Secretariat on 24 <sup>th</sup> February 2015. Number of South African vessels authorised in 2015 was 43.
GEN	0021	Vessels 20 m internal actions report	No internal actions to report
GEN	0022	LSTLV Management standard	Not applicable.
GEN	0023	Techniques used to manage sport and recreational fisheries	The tuna recreational sector is restricted by a bag limit of 10 tuna per person per day as stipulated in the Regulations in terms of the Marine Living Resources Act (1998). The minimum size limits as stipulated by the Regulations in terms of the Marine Living Resources Act (1998) also applies to the recreational sector. No statistical system is in place to quantify catches made by the recreational fishery. A shore-based observer programme was established in 2007 which may allow for better catch estimates from this sector. Recreational fishes are not permitted to sell their catch.
GEN	0024	Vessels involved in IUU Fishing	None.
GEN	0025	Comments on IUU allegations	Nothing to comment on.
GEN	0026	Trade Measures Submission of import and landing data	Not applicable. South Africa does not import tuna
GEN	0027	Data on non-Compliance	No data to report.
GEN	0028	Findings of investigations in relation to allegations of non-compliance	None.

GEN	0029	Vessels sightings	None
GEN	0030	Actions taken with regard to reports of vessel sightings	Not applicable.
BFT	1001	Bluefin tuna farming facilities	Not applicable. South Africa does not fish or trade in BFT.
BFT	1002	Bluefin tuna farming reports	Not applicable. South Africa does not fish or trade in BFT.
BFT	1003	Carry over of caged fish	Not applicable. South Africa does not fish or trade in BFT.
BFT	1004	Bluefin tuna caging declaration	Not applicable. South Africa does not fish or trade in BFT.
BFT	1005	Bluefin tuna traps	Not applicable. South Africa does not fish or trade in BFT.
BFT	1006	Bluefin tuna trap declarations	Not applicable. South Africa does not fish or trade in BFT.
BFT	1007	Fishing, inspection and capacity reduction plans for 2014	Not applicable. South Africa does not fish or trade in BFT.
BFT	1008	Adjustments to farming capacity plan	Not applicable. South Africa does not fish or trade in BFT.
BFT	1009	Modifications to fishing plans or individual quotas	Not applicable. South Africa does not fish or trade in BFT.
BFT	1010	Report on implementation of Rec. 10-04, including Information on regulations and other related documents adopted for implementation of 10-04	Not applicable. South Africa does not fish or trade in BFT.
BFT	1011	Bluefin tuna catches 2012	Not applicable. South Africa does not fish or trade in BFT.
BFT	1012	Bluefin tuna catching vessels	Not applicable. South Africa does not fish or trade in BFT.
BFT	1013	Bluefin tuna other vessels	Not applicable. South Africa does not fish or trade in BFT.
BFT	1014	Joint Fishing Operations	Not applicable. South Africa does not fish or trade in BFT.
BFT	1015	VMS messages	Not applicable. South Africa does not fish or trade in BFT.
BFT	1016	Inspection plans	Not applicable. South Africa does not fish or trade in BFT.
BFT	1017	List of inspection vessels	Not applicable. South Africa does not fish or trade in BFT.
BFT	1018	List of inspectors [and agencies]	Not applicable. South Africa does not fish or trade in BFT.
BFT	1019	Copies of inspection reports	Not applicable. South Africa does not fish or trade in BFT.
BFT	1020	Bluefin tuna transshipment ports	Not applicable. South Africa does not fish or trade in BFT.
BFT	1021	Bluefin tuna landing ports	Not applicable. South Africa does not fish or trade in BFT.
BFT	1022	Bluefin tuna weekly catch reports	Not applicable. South Africa does not fish or trade in BFT.
BFT	1023	Bluefin tuna monthly catch reports	Not applicable. South Africa does not fish or trade in BFT.
BFT	1024	E-BFT fishery closures	Not applicable. South Africa does not fish or trade in BFT.
BFT	1025	Report on steps taken to encourage tag and release of all fish less than 30 kg/115 cm	Not applicable. South Africa does not fish or trade in BFT.
BFT	1026	Validated bluefin catch documents	Not applicable. South Africa does not fish or trade in



		unless entered into eBCD	BFT.
BFT	1027	BCD Annual Report	Not applicable. South Africa does not fish or trade in BFT.
BFT	1028	Validation seals and signatures for BCDs	Not applicable. South Africa does not fish or trade in BFT.
BFT	1029	BCD Contact points	Not applicable. South Africa does not fish or trade in BFT.
BFT	1030	BCD legislation	Not applicable. South Africa does not fish or trade in BFT.
BFT	1031	BCD tagging summary, sample tag	Not applicable. South Africa does not fish or trade in BFT.
BFT	1032	Vessels not included as BFT fishing vessels and presumed to have fished E-BFT	Not applicable. South Africa does not fish or trade in BFT.
TRO	2001	List of BET/YFT vessels and subsequent changes	List submitted 24 <sup>th</sup> February 2015.
TRO	2002	List of authorized vessels which fished bigeye and/or yellowfin tunas in 2015	List of authorised vessels which fished bigeye and/or yellowfin tunas in 2015 will be transmitted to the ICCAT Secretariat on 28 October 2016.
TRO	2003	Reports on investigation of IUU activity by BET/YFT vessels	None.
TRO	2004	Annual report on implementation of the area/time closure for BET/YFT	Not Applicable. South African vessels do not fish in the Gulf of Africa.
TRO	2005	List of BET/YFT observers	Not applicable.
TRO	2006	Data from ICCAT statistical document programs	Not applicable. South Africa does not import bigeye tuna.
TRO	2007	Validation seals and signatures for SDPs	Changes made to authorised signatories. Report sent on 23 October 2015.
SWO	3001	Data from ICCAT statistical document programs	No Applicable. South Africa does not import swordfish.
SWO	3002	Validation seals and signatures for SDPs	Changes made to authorised signatories. Report sent on 23 October 2015.
SWO	3003	List of vessels targetting Med-SWO, including special permits for harpoons and longline	Not applicable. South African vessels do not fish for Mediterranean swordfish.
SWO	3004	List of sport/recreational vessels authorized to catch Med-SWO	Not applicable. South African vessels do not fish for Mediterranean swordfish.
SWO	3005	List of special fishing permits for harpoons or longline for highly-migratory pelagic stocks in the Mediterranean for the previous year	Not applicable. South African vessels do not fish for Mediterranean swordfish.
SWO	3006	Report on implementation of Med-SWO closure	Not applicable. South African vessels do not fish for Mediterranean swordfish.
SWO	3007	Development or fishing/management plan for north Swordfish	Not applicable. South Africa does not fish for Northern swordfish.
ALB	4001	Annual list of northern Albacore Vessels	Not applicable. South Africa does not fish for northern albacore.
ALB	4002	Provisional accumulative southern albacore catches	Redundant.
BIL	5001	Notification of prohibition of dead discards of marlins	The relevant Fishery Control Officer (FCO) must be notified of any undersize dead marlins caught in the tuna and swordfish longline fishery prior to landing. At landing the undersize fish is handed over to the FCO.
BIL	5002	Report on steps taken to implement Rec. 12-04 through domestic law or regulations, including monitoring, control and surveillance measures	South Africa's tuna pole and rod and reel fishery is not permitted to land any billfish including marlins. Large Pelagic Longline permit holders are encouraged through permit conditions to release live marlins. A minimum size of 210 cm LJFL is imposed for all marlins in the longline

			sector. These measures have resulted in South Africa landing negligible amounts of marlin in the commercial fisheries. The recreational fishery is not allowed to sell any catch, including marlins, in terms of the Regulations of the Marine living Resources Act, Act 18 of 1998. Recreational fishers in South Africa have largely moved to catch and release programmes for marlins. Fisheries Compliance Officers targets monitoring of sport tournaments and a Recreational Fishing Management Working Group has been established comprising of registers Associations.
SHK	7001	Notification of the necessary measures to ensure that hammerhead sharks taken by developing coastal CPCs will not enter international trade	The commercial tuna pole fishery is not permitted to land any sharks, including hammerheads. Hammerhead landings are banned in the commercial large pelagic longline fishery. The recreational fishery is not permitted to sell any catch and they are limited to a bag limit of one shark per person per day.
SHK	7002	Notification of the necessary measures to ensure that silky sharks taken by developing coastal CPCs will not enter international trade	The commercial tuna pole fishery is not permitted to land any sharks, including silky sharks. Silky shark landings are banned in the commercial large pelagic longline fishery. The recreational fishery is not permitted to sell any catch and they are limited to a bag limit of one shark per person per day.
SHK	7003	Report on implementation of shortfin mako mortality reduction	South Africa terminated its directed pelagic shark longline fishery in March 2011. Some of these vessels were allocated a fishing right in the large pelagic longline fishery. This fishery is now in a state of transition where shark targeting is in the process of being phased out. Current measures that apply are a unilateral implementation of a Precautionary Upper Catch Limit and when the limit is reached, the fishery closes. Furthermore, shark by-catch limits apply and charter vessels are not permitted to use wire tracers. The new Policy for the Large Pelagic Longline Sector, outlawed the targeting of sharks as of 16 November 2015.
SHK	7004	Report on steps taken to implement Recommendation 11-08 through domestic law or regulations, including monitoring, control and surveillance measures that support implementation.	Silky sharks are not permitted to be landed in any of the commercial tuna fisheries. Recreational fishers are not permitted to sell their catch. All landings of longline vessels are independently monitored. A shark identification guide has been developed and disseminated to industry and compliance officers to assist with identification.
SHK	7005	All CPCs submit to the ICCAT Secretariat, in advance of the 2016 annual meeting, details of their implementation of and compliance with shark conservation and management measures (Recs. 04-10, 07-06, 09-07, 10-08, 10-07, 11-08 and 11-15)	04-10 All Task I and II data pertaining to sharks have been submitted to ICCAT on 22 August 2016, including length frequencies when South Africa had a national observer programme. It should however be noted that South Africa was notified that an old template was used. The data will be submitted using the updated forms. Fishers are not permitted to discard shark trunks at sea. Longline permit holders are encouraged to release sharks alive. Discard and release data are not available since March 2011 when the contract for South Africa's national observer programme expired. South Africa is in the process of re-establishing a national observer programme and it was anticipated that the program will commence in Feb 2015. The Department is in the process of recruiting a Service Provider to render services in respect of the observer programme and it is envisaged that a new Service

			<p>Provider would be appointed on or before 31 March 2017.</p> <p>07-06 South Africa does not fish for porbeagle and North Atlantic mako.</p> <p>South Africa investigating possible nursery grounds for Southern Atlantic mako in the region of the Agulhas Bank. A satellite tagging project is underway examining the residency of juvenile shortfin mako sharks around the Agulhas Bank shelf edge. To date 19 mako sharks have been tagged with PSAT and SPOT tags.</p> <p>09-07 Thresher sharks are not permitted to be landed in any of the commercial tuna fisheries. Recreational fishers are not permitted to sell their catch. All landings of longline vessels are independently monitored. A shark identification guide has been developed and disseminated to industry and compliance officers to assist with identification.</p> <p>10-08 Hammerhead sharks are not permitted to be landed in any of the commercial tuna fisheries. Recreational fishers are not permitted to sell their catch. All landings of longline vessels are independently monitored. A shark identification guide has been developed and disseminated to industry and compliance officers to assist with identification.</p> <p>10-07 Oceanic white-tip sharks are not permitted to be landed in any of the commercial tuna fisheries. Recreational fishers are not permitted to sell their catch. All landings of longline vessels are independently monitored. A shark identification guide has been developed and disseminated to industry and compliance officers to assist with identification.</p> <p>11-08 Silky sharks are not permitted to be landed in any of the commercial tuna fisheries. Recreational fishers are not permitted to sell their catch. All landings of longline vessels are independently monitored. A shark identification guide has been developed and disseminated to industry and compliance officers to assist with identification.</p> <p>11-15 Task I and II data, including zero catches, pertaining to sharks have been reported to ICCAT on the 22<sup>nd</sup> of August 2016.</p>
BYC	8001	Report on implementation of Rec 10-09, paras 1, 2 and 7, and relevant actions taken to implement the FAO guidelines	<p>Turtle interactions are reported for the longline fleet. Dehooking tools and procedures are specified in the large pelagic longline permit conditions. The use of circle hooks is encouraged in the permit conditions.</p>
BYC	8002	Report on Implementation of seabird	NPOA-seabirds was published in 2008. The NPOA-

		mitigation measures and NPOA for seabirds	<p>seabirds aims to reduce seabird mortality on longline vessels to below 0.05 seabirds per 1000 hooks. Various bird mitigation measures have been included in permit conditions, such as:</p> <p>All longliners are required to deploy a tori line when setting.</p> <p>No bright lights are to be used when setting at night.</p> <p>Baits are required to be properly defrosted to ensure faster sinking rates.</p> <p>All large pelagic longline vessels may only set at night and have all branch lines weighted.</p> <p>Bird limits have been introduced per vessel per year and if non-compliance with bird mitigations were found then the vessel would be required to stop fishing at either 25 birds or 50 birds.</p> <p>In addition, scientific observers also collect data on bird mortality rates and provide dead specimens for identification. Awareness programmes have been held to educate permit holders/ skippers of detrimental impact longliners have on seabird populations. To encourage responsible fishing, permit holders have been given bird posters so as to be able to identify the common species occurring in Southern African waters. WWF and Birdlife SA have also provided vessels with tori lines and given instructions on how to use them. In addition, research into seabird mitigation has taken place on board the fishing vessels during 2009-2010 with the assistance of the University of Washington Sea Grant. Seabird mortality has been greatly reduced due to the collaborative efforts and was recorded at 0.06 seabirds per thousand hooks in 2012.</p> <p>Processes are underway to review the NPOA – Seabirds and it was envisaged that the review would have been finalised before the end of 2016 but due to high turnover of staff and other projects, such as allocation of new fishing rights in 10 fishing sectors, the review has not yet been completed. It is anticipated that the review would be completed on or before the end of year, 2017.</p>
BYC	8003	Report on steps taken to mitigate bycatch & reduce discards and any relevant research in this field	South Africa manages pelagic sharks as a by-catch to the targeting of swordfish and tuna. As such permit conditions prohibits the use of wire tracers for local and charter vessels.
SDP	9001	Description of pilot electronic statistical document systems	No pilot statistical documents implemented.
MISC	9002	Information and clarification regarding objections to ICCAT Recs.	No objections to the ICCAT Recs.

#### ***Section 4: Implementation of Other ICCAT Conservation and Management Measures***

##### *Data and minimum size*

97-01: As a result of the reduced swordfish size adopted in 2005, undersize swordfish (< 119 cm FL or < 18 kg dressed weight) are confiscated by the FCOs/ Monitors who are required to monitor all discharges of longline vessels fishing on a South African permit.

03-13: All tuna pole/ rod and reel, tuna/swordfish/shark longline vessels are required to complete a daily log of all fishing activity and meets the standards described in the ICCAT Field Manual.

Other: All fishing sectors targeting large pelagic species, except for the recreational sector, are managed by a TAE (with TAE = no of vessels) as determined by the Minister of Agriculture, Forestry and Fisheries. The Regulations in terms of the Marine Living Resources Act (1998) also specify minimum weight limits for bigeye tuna (3.2 kg), bluefin tuna (6.4 kg), yellowfin tuna (3.2 kg). The swordfish minimum size limits of 125 cm LJFL and 25 kg mass were reduced to 119 cm LJFL and 18 kg in order to minimize dumping at sea. An estimate of the total amount of undersize swordfish caught is reported in the Compliance Tables.

#### *Capacity limits*

93-04: South Africa is a developing country, which only started commercial tuna longlining in 1997, and cannot restrict its effort on yellowfin to that of 1992. Furthermore, yellowfin caught in the vicinity of Cape Town are likely to be of Indian Ocean origin.

04-01: South Africa is in the process of developing a tuna longline fleet which would target bigeye, but currently bigeye tuna is caught on domestic vessels targeting swordfish. Nonetheless South Africa is exempted from this resolution, as it is a developing country with reported bigeye catch in 1999 less than 2 100 t.

#### *Statistical documents*

94-05: South Africa neither imports nor exports northern bluefin tuna; hence this resolution is not applicable.

01-21: Bigeye tuna statistical documents have been issued since 2003 and the management of these documents was improved upon in 2007.

01-22: Swordfish statistical documents have been issued since 2003, and the management of these documents was improved upon in 2007.

#### *Other measures relating to individual species*

03-10: South Africa has finalised and published a Shark NPOA in November 2013. Most of the Management Measures that are contained therein, have been in place and implemented for a number of years in order to shark population. For example: shark catches are restricted to 50% of the weight of tuna and swordfish; skippers are encouraged to release sharks alive; skippers are required to carry dehooking devices on board the vessel; and no finning is allowed. South Africa has also unilaterally implemented a Precautionary Upper Catch Limit for sharks of 2000 t for the Atlantic and Indian Ocean combined.

07-06: South Africa has contributed to several projects on the life history, spatial distribution and movement of blue sharks in the Atlantic and Indian Oceans. A recent project has shifted the focus from blue sharks to shortfin mako sharks. 19 juvenile shortfin mako sharks have been tagged with SPOT and PSAT tags in order to investigate the movement of these sharks in relation to the Agulhas shelf edge. This study aims to identify whether a short-fin mako nursery exists along the south coast of South Africa. One of the key research priorities involves investigating the movement of large pelagic sharks and fish between the Indian and Atlantic Ocean.

#### *Trade sanctions*

02-17, 06-13, 11-19: South Africa has no developed domestic markets for tuna and tuna-like species hence there is no tuna trade with listed countries.

#### *VMS*

03-14, 04-11: Any pole, rod and reel, large pelagic longline vessel, irrespective of size, is required to have a functional VMS [as approved by the Department of Agriculture, Forestry and Fisheries (DAFF)] in place before a vessel is permitted to embark on any fishing trip.

#### *General*

97-10 (para 7): Thus far, longline vessels fishing on a South African catch permit are only allowed to discharge in South African ports. However, provisions are made in the permit conditions that if a vessel discharges in another country the permit holder is required to arrange for a South African FCO to monitor the discharge.

01-18: South Africa does not allow IUU vessels to enter its EEZ. Furthermore, no port services are made available to the vessels should they be allowed to enter in the case of *force majeure*. In addition, transshipments at sea are not permitted.

02-21: South Africa is in the process of developing its fishing capacity and as such has chartered foreign fishing vessels in the large pelagic longline fishery. These vessels were subjected to the provisions of South African regulations and permit conditions. All vessels are equipped with VMS and are required to take an observer on board on all fishing trips. Charter notifications for 2015 were submitted to ICCAT. In addition a number of South African pole vessels were authorized to fish under charter in Namibia in 2015.

03-12: Commercial tuna fishing vessels are authorised by the DAFF to fish for tuna by means of a valid catch permit. A high seas licence is required if the vessel is to fish on the high seas. The original copies of the permit and licence are required to be on board the vessel on all fishing trips. Fishing vessel call signs and names also have to be marked in a specific manner.

#### *Inspection Schemes and Activities*

Vessels, including foreign charter vessels, participating in the South African large pelagic longline and tuna pole fishing sectors are required to notify the local FCO prior to all landings as per the stipulated permit conditions. These vessels are only allowed to discharge in designated ports. No transshipments at sea are permitted. Transshipments in port are allowed subject to the issuing of a transshipment permit and monitoring by a FCO or Fishery Monitor (FM). All pole and longline vessels are required to have a functional VMS, which reports to the DAFF's VMS Operations Centre. All longline discharges are weighed at quayside and are independently monitored and inspected by FCOs and FMs. The Statistical Document Programme for swordfish and bigeye, which was implemented in 2003, is well established. On board scientific observers also assist in monitoring longline skippers compliance with regards to permit conditions. For 2015, 100% observer coverage was achieved for all charter longline vessels and there 44 domestic fishing trips that were observed. The National Observer Programme contract expired in March 2011 and the DAFF is currently in process to re-establish the observer programme for domestic vessels and it was anticipated that the Program will be fully functional in February 2015 but due to supply chain challenges, this did not happen. The process is still ongoing and it is envisaged that a Service Provider will be appointed before the end of March 2017.

Through collaborating with other national agencies such as National Ports Authority and Customs and Excise, South Africa continues to improve on the implementation thereof. South Africa has a full Port Inspection Scheme in place in accordance with the FAO Port State Measures Agreement (PSMA). This includes foreign vessels requiring an EEZ permit in order to enter and discharge in South African ports. Port access for foreign vessels is limited to Cape Town harbour, Port Elizabeth harbour and Durban harbour, where sufficient capacity exists to monitor the vessels. EEZ permits are only issued to authorized vessels. No IUU-listed vessels are allowed to enter South Africa's ports or to discharge in South African Ports. In applying for an EEZ permit, skippers have to provide South African authorities with the necessary Flag State authorization documents, quantity of fish and species onboard to be discharged as well as the gear type used. A letter of authorization from the Flag State is required if South African authorities are uncertain about the application for a discharge permit. Transshipments are only allowed in port on the authority of a transshipment permit. In applying for this permit the skipper has to provide South African authorities with the vessel details, quantity of fish and species to be transhipped, and where it was caught. South Africa currently intends to inspect and monitor 100% of foreign vessel discharges and transshipments in port. In September 2015, the South African Parliament has signed off and approved the ratification of PSMA, accessions to the Commission for the Conservation of Southern Bluefin Tuna and the Indian Ocean Tuna Commission.

Surveillance of coastal waters are routinely monitored by the fisheries Patrol Vessels. Further support is provided through joint operations with the South African National Defence Force and the South African Police Services.

#### ***Section 5: Difficulties Encountered with the Implementation of and Compliance with ICCAT Conservation and Management measures***

South Africa generally submits and complies with all its data and reporting requirements to ICCAT. However, a number of the reports, notifications and data are either outstanding or were submitted after the deadline. Late reporting has been a particular problem for calendar year 2015 and 2016 as the Department has committed many of its resources in conducting a fishing rights allocation process for a number (10) of its commercial fishing sectors, including the tuna longline (large pelagic) fishery. Processes are underway and it is envisaged that new fishing rights will be allocated by the end of November 2016. The Appeals Process as well for the rights that were allocated in 2013, was conducted in 2015 and concluded by end of February 2016.

Last year, it was reported that two of the Fisheries Managers that have been responsible for the management of the Tuna Sector were either promoted or resigned and that the DAFF was in the process of filling those vacancies. One post was subsequently abolished and the other was filled in April 2016. In 2016, the Tuna Scientist has resigned in April and the post will only be filled in December. The shortage of staff will have implications on the timely submission of reports and data as required in terms of ICCAT Recommendations. In addition, the scope of work of the Fisheries Control Officers has been expanded with the implementation of other strategically important Departmental objectives such as Operation Phakisa and Small-scale fisheries.