

Atlantic Bight and South Atlantic Bight. With deep canyons, opposing warm and cold currents, and immense, shallow banks, these areas off the U.S Eastern Seaboard are an especially diverse and dynamic part of the ocean margin. Annual estimates extended from 1992 through 2014. Two papers with Yan Li as first author were published in 2016.

2.2.9 Tagging

Participants in the Southeast Fisheries Science Center's Cooperative Tagging Center (CTC) and The Billfish Foundation (TBF) Tagging Program tagged and released 5,085 billfishes (including swordfish) and 305 tunas in 2015. This represents a decrease of 25.1% for billfish and a decrease of 23.0% for tunas from 2014 levels. Several electronic tagging studies involving yellowfin tuna, bluefin tuna and billfish in the Atlantic Ocean and adjacent waters continued during 2015. These are discussed in the corresponding research sections above. There were 19 billfish recaptures from the CTC and TBF projects in 2015. This represents a decrease of 9.5% from 2014. These recaptures included 16 sailfish, 3 white marlin, and 2 blue marlin. A total of 13 tunas were recorded as recaptures in 2014, 11 bluefin tuna, 1 bigeye tuna, and 1 yellowfin tuna. This recapture level was an increase of 62.5% from the 2014 values.

2.2.10 Fishery observer deployments

Domestic Pelagic Longline Observer Coverage

In accordance with ICCAT recommendations, randomized observer sampling of the U.S. pelagic longline fleet was continued into 2015 through the U.S. Pelagic Observer Program. Representative scientific observer sampling of this fleet has been underway since 1992. The data collected through this program have been used to quantify the composition, disposition, and quantity of the total catch (both retained and discarded at sea) by this fleet which fishes in waters of the Northwest Atlantic Ocean, Gulf of Mexico, and the Caribbean Sea. Selection of the vessels is based on a random sampling of the number of sets reported by the longline fleet. The percent of fleet coverage has varied over time, for example in 1992 it reached a 2.5% coverage; while in 2014 it reached a 12.85 % (includes Gulf of Mexico Bluefin Tuna Enhanced Coverage). The targeted sampling fraction of the U.S. pelagic longline fleet was increased from 5% to 8% in 2002.

A total of 18,967 longline sets (13,718,631 hooks) were recorded by NOAA Fisheries observer personnel from May 1992 to December 2015. During this period, observers recorded over 620,773 fish (primarily swordfish, tunas, and sharks), in addition to marine mammals, sea turtles, and seabirds. Documents SCRS/04/168 and SCRS/08/034 provided a more detailed summary of the data resulting from observer sampling, observer coverage, and sampling strategy. Similar to 2007-2014, from approximately February 23 through June 15, 2015, the pelagic observer program increased the coverage of the longline fleet operating in the Gulf of Mexico. The goal of this increase was to collect data to better characterize the interaction between the longline fleet and bluefin tuna during the spawning season. A total of 266 longline sets were observed (153,780 hooks) from 21 vessels which accounted for approximately 48.5 % of the longline trips during that period.

Shark Bottom Longline Observer Coverage

The U.S. Atlantic shark bottom longline fishery operates in the Atlantic Ocean from about the Mid-Atlantic Bight to South Florida and throughout the Gulf of Mexico. The bottom longline gear targets large coastal sharks, but small coastal sharks, pelagic sharks, and dogfish species are also caught. Currently, about 177 U.S. fishermen are permitted to target sharks (excluding dogfish) in the Atlantic Ocean and Gulf of Mexico, and an additional 258 fishermen are permitted to land sharks incidentally caught. Amendments to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan implemented a shark research fishery, which allows NMFS to select a limited number of commercial shark vessels on an annual basis to collect life history data and catch data for future stock assessments. Specifically, only commercial shark fishers participating in the research fishery are allowed to land sandbar sharks, *Carcharhinus plumbeus*, and must carry an observer on 100% of all trips (compared to a target coverage level of 5-10% outside the research fishery). Outside the research fishery, fishers are permitted to land 36 non-sandbar large coastal sharks per trip (including blacktip shark, *Carcharhinus limbatus*, bull shark, *Carcharhinus leucas*, lemon shark, *Negaprion brevirostris*, nurse shark, *Ginglymostoma cirratum*, silky shark, *Carcharhinus falciformis*, spinner shark, *Carcharhinus brevipinna*, tiger shark, *Galeocerdo cuvier*, great hammerhead shark, *Sphyrna mokarran*, scalloped hammerhead shark, *Sphyrna lewini*, and smooth hammerhead shark, *Sphyrna zygaena*). In 2014, a total of 94 trips with a 126 bottom longline hauls were observed. Trips averaged 1.9 days in length. In the research fishery, large coastal shark species (excluding sandbar) comprised 30.8% of the shark catch, sandbar shark comprised 51.6% and small coastal shark species comprised 12.0%. Prohibited shark species were also caught including the dusky shark, *Carcharhinus obscurus*, sand tiger shark, *Carcharias taurus*, (0.9%), Caribbean reef shark, *Carcharhinus perezi*,

and white shark, *Carcharodon carcharias*. Outside the research fishery, sharks comprised 99.4% of the catch, teleost 0.5%, and batoids 0.1%. Prohibited sand tiger sharks were also observed caught.

ANNEX 1 TO PART I OF ANNUAL REPORT (SCIENTIFIC REPORT)

Number	Information required	Response
GENERAL - all species		
S1	Annual Reports (Scientific)	23/9/2016
S2	Fleet Characteristics	31/7/2016
S3	Estimation of nominal catch Task I	31/7/2016
S4	Catch & Effort (Task II)	31/7/2016
S5	Size samples (Task II)	31/7/2016
S6	Catch estimated by size	31/7/2016
S7	Tagging declarations (conventional and electronic)	26/7/2015
S8	Catches from sport & recreational fisheries in the Mediterranean Sea (all tuna and tuna-like species)	Not applicable
S9	Specific data to determine separately the magnitude of recreational fisheries of each species	31/7/2016 ¹
S10	Information collected under domestic observer programs	31/7/2016 ²
S11	Alternative scientific monitoring approach	Not applicable
S12	Information and data on pelagic <i>Sargassum</i>	Not applicable
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	Not applicable
BLUEFIN TUNA		
S14	Sport and Recreational fishing data	Not applicable
S15	Size sampling from farms	Not applicable
S16	Results of BFT pilot studies under para 88	Not applicable
S17	The results of programme using stereoscopic camera systems or alternative techniques that provide the equivalent precision at the time of caging (covering 100% of all cagings)	Not applicable
S18	Information on and data collected under the national BFT observer programmes	Not applicable
S19	Report on fishing mortality of all W-BFT, including dead discards	31/7/2016 ³
S20	Information on confiscated bluefin tuna of unauthorised by-catch	Not applicable
S21	Details of cooperative research programs on W-BFT to be undertaken	Not applicable
S22	Updates to abundance indices and other fishery indicators	21/9/2016
S23	Information resulting from GBYP related research including new information resulting from enhanced biological sampling activities	Information provided in bluefin tuna section of Part I of the U.S. Annual Report. ⁸
TROPICAL TUNA		
S24	Information from logbooks on BET/YFT vessels	31/7/2016 ⁴
S25	Management Plans for the use of fish aggregating devices	Not applicable
S43	An inventory of all support vessels associated with purse-seine of baitboat fishing vessels	Not applicable
S44	The number of FADs actually deployed on a quarterly basis, by FAD type, indicating the presence or absence of a beacon associated to a FAD	Not applicable
S45	For each support vessel, the number of days spent at sea, per 1 degree grid area, month and flag State and associated to PS/BB	Not applicable
SWORDFISH		
S26	Best available data on SWO, including by sex and discards and effort statistics	31/7/2016
BILLFISH		
S27	Results of scientific programmes for billfish	Information provided in billfish section of Part I of the U.S. Annual Report.

Number	Information required	Response
S28	Report on methods for estimating live and dead discards of blue marlin and white marlin/spearfish	1999 (see scientific document SCRS-99/90).
SHARK		
S29	CPCs shall submit Task I and Task II data for sharks including available historical data	31/7/2016
S30	Task I and Task II of thresher sharks, including discards and releases	31/7/2016 ⁵
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	31/7/2016 ⁵
S32	Plan for improving data collection for sharks on a species specific level	Not applicable
S33	Task I and Task II of silky sharks caught for local consumption	Not applicable
S34	Task I and Task II of hammerhead sharks caught for local consumption	Not applicable
S35	Number of discards and releases of hammerhead sharks with indication of status (dead or alive)	31/7/2016 ⁵
S36	Number of discards and releases of oceanic whitetip with indication of status (dead or alive)	31/7/2016 ⁵
OTHER BY-CATCH		
S37	Provision of Existing identification guides for sharks, seabirds and turtles and marine mammals caught in the Convention area	Links provided in Part II, Section 4 of the 2014 U.S. Annual Report.
S38	Information on interactions of its fleet with sea turtles in ICCAT fisheries by gear type	31/7/2016
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	31/7/2016
S40	CPCs shall report the by-catch and discard data	31/7/2016
S41	Notification of measures taken on the collection of by-catch and discard data in artisanal fisheries through alternative means	Not applicable
S42	CPCs shall report on steps taken to mitigate by-catch and reduce discards, and on any relevant research	Information on steps taken to mitigate bycatch and reduce discards is included in Part II, Sections 3 and 4 of the U.S. Annual Report. Relevant research is described in Part I, Section 1.

¹ Recreational fisheries data reported as part of the U.S. Task I and Task II data submission. Data collection procedures for recreational fisheries are explained in Part II, Section 3 of the U.S. Annual Report and have been described previously in scientific papers presented to the SCRS and other documents presented to the Commission.

² U.S. observer programs are described in Part I, Section 2, and in Part II, Section 4, of the U.S. Annual Report.

³ Data on WBFT dead discards reported as part of the U.S. Task I data submission.

⁴ Data from logbooks of U.S. vessels <20 m reported as part of U.S. Task I and Task II data submission.

⁵ All available data on live releases collected through the U.S. observer program will be included in Part II of the U.S. Annual Report. At this time, formats and standards for reporting these data to SCRS have not been developed.

NOTE: Species-specific Task I and II data needed for 2016 intersessional data preparatory meetings were provided earlier than the dates shown here, as required.

Table 3. Annual landings (t) of bigeye tuna from 2011 to 2015.

<i>Area</i>	<i>Gear</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>	<i>2015</i>
NW and North Central Atlantic	Longline	397.2	564.9	490.9	573.3	571.6
	Gillnet	0	0.2	0.06	0.08	0.5
	Handline	3.4	7.9	15.9	13.4	49.2
	Trawl	1.2	0.2	0	0	0.09
	Troll	0.09	0.2	5	4.5	5.4
	Rod & Reel*	72.4	269.6	337.5	251	198
	Unclassified	4.7	7.3	6.2	4.7	3.2
Gulf of Mexico	Longline	2.2	13.5	9.2	7.1	9.1
	Rod & Reel	34.9	0.1	7	0	0.02
	Unclassified	0	0.4	0	0	0
Caribbean	Longline	0	0.002	8.6	3.9	0.9
	Handline	0.05	0	0.06	0	0
	Rod & Reel*	2.3	0	0	1.4	0.5
SW Atlantic	Longline	200.8	3.0	0.2	0	0
TOTAL		718.7	867.4	880.6	859.4	838.5

Table 4. Annual landings (t) of albacore tuna from 2011 to 2015.

<i>Area</i>	<i>Gear</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>	<i>2015</i>
NW and North Central Atlantic	Longline	138.2	157.7	139.9	150.5	84.5
	Gillnet	0.2	5.7	0.02	3.6	0.5
	Handline	1.7	0.6	2.3	2.2	2.6
	Trawl	2.0	0.3	0	0	1.7
	Trap	0	0	0	0	0
	Troll	0	0	0.2	0.2	0
	Rod & Reel*	170.6	144.3	340.3	136.6	12.9
	Unclassified	7.8	4.4	0.6	6.7	0.03
Gulf of Mexico and Caribbean	Longline	101.8	103.5	115.4	158.2	145.3
	Rod & Reel*	0	0.7	0	0	0.2
	Handline	0.1	0.5	0.02	0.07	0
TOTAL		422.4	417.7	598.7	458.1	247.8

NOAA Fisheries published a final rule on December 2, 2014, to implement Amendment 7 to the 2006 Consolidated HMS FMP (which focused primarily on the Atlantic bluefin tuna fishery), to reduce and account for bluefin tuna dead discards (through gear restricted areas and individual transferable quotas), optimize fishing opportunities in all categories within the U.S. quota, and enhance monitoring and reporting, among other things. The final rule included measures to reallocate quota among fishing categories, implement gear restricted areas and access based on performance criteria as well as individual bluefin quotas in the pelagic longline fishery, close the pelagic longline fishery when bluefin tuna quota is attained, require daily catch reporting of bluefin via vessel monitoring systems for purse seine and pelagic longline vessels, require electronic monitoring for pelagic longline vessels, and other regulatory changes in the bluefin tuna fisheries.

Shark identification guides can be found online at:

http://www.nmfs.noaa.gov/ia/species/sharks/fin_guide.pdf

http://seagrant.gso.uri.edu/z_downloads/bookstore_sharkplacard1.pdf

http://seagrant.gso.uri.edu/z_downloads/bookstore_sharkplacard2.pdf

<http://seagrant.gso.uri.edu/publications/>

http://www.nmfs.noaa.gov/sfa/hms/species/sharks/shark_id_placard.pdf

Turtle identification guides can be found online at:

http://www.sefsc.noaa.gov/turtles/FO_Species_ID_Photosafety_Safety.pdf

http://www.sefsc.noaa.gov/turtles/TM_470_Wyneken.pdf

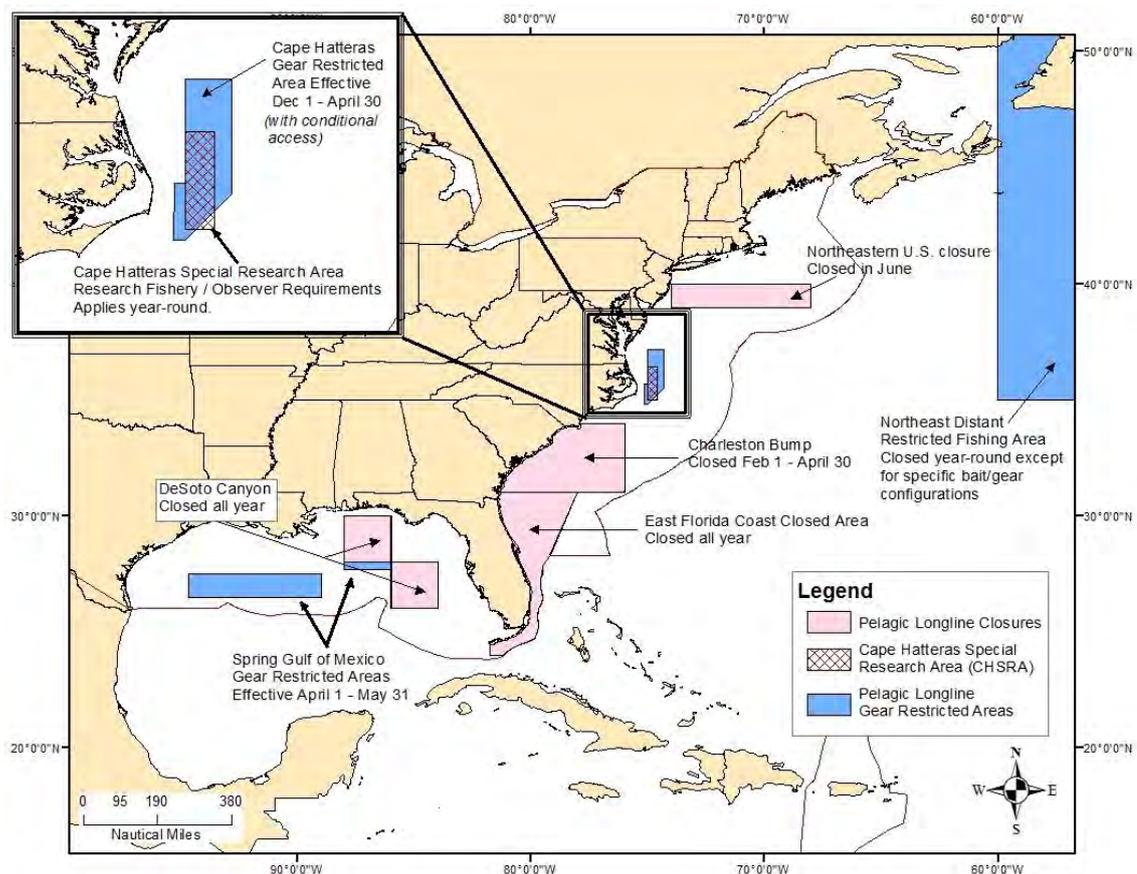


Figure 1. Selected U.S. time/area closures in HMS fisheries (2015). Note: the Northeast Distant (NED) was a closed area to all vessels as of 2001. It became the NED Restricted Fishing Area on 30 June 2004, when it was opened to those participating in the NED experiment. The Cape Hatteras Special Research Area requires vessels fishing with pelagic longline gear to carry observers, when needed, and limit longline mainline to 20 nm in length.